



**Tuesday, March 18, 2025
5:00 PM**

**City Council
Tuesday Meeting Agenda**

**Council Chambers
200 Forrest Street**

Call to Order

Call to Prayer and Pledge of Allegiance

Presentation Agenda

POLICY AGENDA

1. **2025-229** Approve the minutes for the March 3 & 4, 2025 meetings of the City Council.
2. **2025-215** Accept the Planning Commission's recommendation and adopt an Ordinance amending the Land Development Code No. 3209, in Section 2 (Applicability and Conformity), Section 5 (Uses), Section 7 (Design), Section 11 (Administration), and Section 13 (Definitions) made by the City of Hattiesburg, concerning short-term rentals and processes.
3. **2025-216** Accept the Planning Commission's recommendation and adopt an Ordinance amending the Land Development Code Ord. No. 3209, in Section 6 (Dimensions), Section 11 (Administration), and Section 12 (Processes), made by the City of Hattiesburg, concerning a fee-in-lieu program for Sidewalks.
4. **2025-213** Accept the Planning Commission's recommendation and adopt an Ordinance rezoning property from R-1B to R-3 made by Meoucia Breland, Property Owner/Applicant, located at 217 Oliver Avenue (PPIN 23552, Ward 2, Forrest County).
5. **2025-225** Adopt an Ordinance amending Chapter 32 of the Code of Ordinances to establish a Short-Term Rental Ordinance.
6. **2025-228** Adopt an Ordinance amending Ordinance Number 3368 adopted on February 4, 2025, the Vacant & Abandoned Structure Registration, to amend registration fees of said Ordinance.
7. **2025-214** Accept the Planning Commission's recommendation to approve a preliminary plat of a major subdivision request made by John Weeks, Property Owner/Applicant,

Lamar Rutland, Engineer, and Rick Sullivan, Surveyor, for a A-1 zoned property, to be known as the Mineral Creek Estates, located on J Ed. Turner Drive (PPIN 9505, Ward 1, Forrest County).

8. 2025-217 Accept the Board of Adjustment's recommendation to approve variance requests made by LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant, for a property located at 3509 Hardy Street (PPIN 23227, Ward 1, Forrest County).
Requested Variances:
- The requirement of active use of the drive-through area to be no closer then 300ft to a lot containing a legal, conforming residential use to instead allow for 260ft (LDC 5.4.36.4),
 - The requirement of Drive-through facilities located closer than 300 feet to a residential to operate no earlier than 6:00 a.m. or later than 12:00 a.m. to instead allow for operation at 5:30am (LDC 5.4.36.3).
9. 2025-173 Adopt a Resolution approving the adoption and implementation of the 2025-2030 Regional Hazard Mitigation Plan. Prepared by the MEMA District 8 Regional Hazard Mitigation Council, which includes the counties of Covington, Forrest, Jefferson Davis, Jones, Marion, Perry, and Wayne.
10. 2025-223 Adopt the March 18, 2025 Amendments to the budget for the City of Hattiesburg for fiscal year ending September 30, 2025 and adopt the Resolution authorizing publication of amendments for funds in excess of 10% of the originally appropriated budget.
11. 2025-231 Adopt a Resolution approving settlement of claim with Grove Transportation Company of Mississippi, LLC., as a doubtful and disputed claim. Authorize the issuance of a manual check for settlement.
12. 2025-233 Adopt a Resolution authorizing the submission of a grant to the Mississippi Department of Wildlife Fisheries and Parks-Recreational Trails Program for the design, support, development and construction of a pedestrian bridge over Gordon's Creek; and authorize the Mayor to execute any and all necessary forms and documents on behalf of the City of Hattiesburg as necessary.
13. 2025-204 Adopt Resolutions adjudicating and directing the placement as an assessment for the cleanup costs and applicable penalties, not to exceed the values prescribed by State law, against the following properties.

14. 2025-156 Take from the Table: Release of Lien and Adopt a Resolution adjudicating Nunc Pro Tunc the cleanup costs and penalties for 535 West 4th Street, Hattiesburg, Mississippi, to be \$19,593.50, instead of \$13,918.00.
15. 2025-221 Approve Release of Lien documents filed in relation to Code Enforcement clean-up assessments per attached memo, authorize the Mayor to execute and record the same.
16. 2025-234 Approve Amended Software Agreement between the City of Hattiesburg and Tyler Technologies for the Community Development Portal and authorize the Mayor to execute the same.
17. 2025-222 Approve Purchase Agreement with Bogue Homa Mitigation Bank for mitigation credits required by U.S. Army Corps of Engineers Permit SAM-2023-00710-CSP for the Lincoln Road Detention Facility Project for the amount of \$121,280.00; Authorize Mayor to execute said agreement in duplicate and issue manual check in payment thereof.
18. 2025-224 Acknowledge bids received on January 23, 2025, for the Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation Project; Accept the bid from Suncoast Infrastructure, Inc. in the amount of \$2,828,420.00 as the lowest and best bid; and authorize the Mayor to execute construction contracts and all necessary agreements for related purposes.
19. 2025-226 Acknowledge receipt of closing documents for the Tatum Park Field 16 Lighting Project; Authorize publication of Notice of Final Settlement; Authorize final acceptance of the project and Authorize payment of final pay application to the contractor.
20. 2025-157 Take from the Table: Accept the Planning Commission's recommendation to approve a request for a preliminary plat for a major subdivision made by Legacy Park Residential, LLC, Property Owner/Applicant, for an R-1B zoned property located on Beverly Hills Road (PPIN 26210, Ward 1, Forrest County).

ROUTINE AGENDA

1. 2025-235 Ratification of a professional services agreement with Butler Snow LLP, in connection with the Mississippi 2024 Continuing Disclosure filing.
2. 2025-232 Acknowledge receipt of the monthly budget report for the month ending February 28, 2025.

3. **2025-202** Acknowledge the final version of the 2024 Consolidated Annual Performance and Evaluation Report (CAPER) and authorize submission to the U. S. Department of Housing and Urban Development (HUD).

4. **2025-185** Approve and authorize publication of Notice for Request for Qualifications for Qualified Eligible Contractors for the City of Hattiesburg's CDBG/HOME Programs.

5. **2025-203** Authorize submission of a grant application to the Mississippi Office of Homeland Security Grant Program.

6. **2025-205** Approve and authorize the issuance of manual checks for CDBG/HOME Program Claims per the attached Memorandum.

7. **2025-220** Approve the City's purchase of (4) grave spaces, located in the North Half (N 1/2) of the Northeast Quarter (NE 1/4), Lot 22, Section 32, at Highland Cemetery, and Southeast Quarter (SE 1/4), Lot 40, Section 33, and South Half (S 1/2) of the Northeast Quarter (NE 1/4), Lot 40, Section 33, at Highland Cemetery. Minute Book -File# 2014-1057, and Minute Book# 2015, page 119, in the amount of \$700.00 from Marilyn Mitchell. Authorize manual check for the same.

8. **2025-219** Approve the sale of grave spaces per attached Memo's, Receipts and Deeds.

9. **2025-230** Approve claims docket for the period ending March 14, 2025.

In Memoriam:

- Mrs. Ola Mae Silas
- Mr. Harlie “Lynn” Landrum
- Mr. Jimmie Eugene Poole
- Mr. Garland W. Sullivan
- Mr. Earl Preston “Rusty” Reeves, Jr.
- Pastor Hezzie L. Bolton

Meeting Adjourn



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Ronda Kennedy, Clerk of Council
cc:
Date: Tuesday, March 18, 2025
Re: Approve the minutes for the March 3 & 4, 2025 meetings of the City Council.
File Number: 2025-229
Minute Book #

Summary

According to Miss. Code Ann. § 21-15-33, "the minutes of every municipality must be adopted and approved by a majority of all the members of the governing body of the municipality at the next regular meeting or within thirty (30) days of the meeting thereof, whichever occurs first....."

Recommendation Statement

I recommend approval of the minutes.

Please place this on the March 18, 2025 City Council meeting for consideration.

Published Agenda



Monday, March 3, 2025
4:00 PM

City Council
Monday Meeting Agenda

Council Chambers
200 Forrest Street

Call to Order

Agenda Review

Citizens' Forum

Work Session

1.

2025-173

Review of the MEMA District 8 Regional Hazard Mitigation Plan for Adoption by the City of Hattiesburg for 2025-2030, presented by Administration.

2.

2025-184

Downtown Roadmap, presented by Downtown Hattiesburg Association.

Meeting Recess

Call to Order

BE IT REMEMBERED that the **Agenda Review meeting of the Hattiesburg City Council** was held at **4:00 p.m. Monday, March 3, 2025**, in Council Chambers at City Hall; same being from an adjourned meeting held on February 18, 2025.

Those present included members of the City Council Jeffrey George, Ward 1; Deborah Delgado, Ward 2; Carter Carroll, Ward 3; Dave Ware, Ward 4; and Nicholas Brown, Ward 5. Others in attendance included Director of Administration/City Clerk, Kermas Eaton; City Attorney, Randy Pope; Clerk of Council, Ronda S. Kennedy; Deputy Clerk of Council, Lisa Luu Jolly; City staff members; media; and the public.

Absent: Mayor Toby Barker

Council President George **Called the meeting to order.**

Agenda Review

The Clerk of Council read aloud the Agenda Adjustments:

Delete Policy Item #13 and Move Routine Item #5 to Policy Item #21 at the request of the Administration.

Council President George proceeded with the **Agenda Review.**

Following discussion of agenda items, Council President George **closed the Agenda Review.**

Citizens' Forum

Council Vice President Ware **proceeded with the Citizens' Forum.**

He stated the procedures and invited members of the public to speak.

The following citizens addressed the Council:

- *Virginia Smith, 200 Tuscan Ave., Apt. A*

There were no other citizens present who wished to address the Council.

Council Vice President Ware **closed the Citizen Forum.**

Work Session

Council President George **proceeded with the Work Session**, which included:

1. **2025-173** Review of the MEMA District 8 Regional Hazard Mitigation Plan for Adoption by the City of Hattiesburg for 2025-2030, presented by Senior Planner, Nathan Satcher.

Attachments: District 8 HM Plan Full Plan_2025-2030_DRAFT

2. **2025-184** Downtown Roadmap, presented by Downtown Hattiesburg Association.

Attachments: DHA Roadmap Community One-Pager with Goals

Presentation presented by the following Downtown Hattiesburg Association (DHA) Representatives:

- Betsy Rowell, Interim Executive Director
- Emily Gallaspy, *(Newly)* Executive Director
- Anna Rush, President of DHA, *Attorney of Rush Law Firm*
- Marlo Dorsey, Ex-Officio Officer of DHA, *Executive Director/CEO of VisitHattiesburg*
- Shawn Harris, Treasurer of DHA, *Vice President & Commercial Banker of Hancock-Whitney Bank*

Additional Business

Council President George stated that *due to anticipation of the predicted severe weather*, **the regular meeting** scheduled for 5:00 p.m. on Tuesday, March 4, 2025, **was rescheduled to 3:00 p.m.**

Meeting Recess

Council President George declared the **meeting recessed at 4:51 p.m., this 3rd day of March 2024**, by unanimous consent, until the 4th day of March 2025.

ATTEST:

APPROVE:

Clerk of Council

Council President

ATTEST AND CERTIFY:

APPROVE:

City Clerk

Mayor



Tuesday, March 4, 2025
3:00 PM

City Council
Special Called Meeting Agenda

Council Chambers
200 Forrest Street

Call to Order
Call to Prayer and Pledge of Allegiance
Presentation Agenda
Citizens’ Forum

MB 2023
Page #

POLICY AGENDA

p. 279	1.	2025-163	Approve the minutes for the February 18, 2025 meeting of the City Council.
p. 279-280	2.	2024-390	Take from the table: Adopt an Ordinance to amend the comprehensive zoning district map for a located at 532 Cox Street (PPIN 12368, Ward 5, Forrest County) from R-1C (Single-Family Residential) to A-2 (Agricultural Residential). The Planning Commission recommended approval with conditions on September 4th, 2024.
p. 280	3.	2024-399	Take from the table: Approve the Board of Adjustment's recommendation to approve the request for a variance from the minimum lot size of 43,560 sq ft (1 acre) for an A-2 zoned property to instead allow for a minimum lot size of 16,200 sq ft on a property located at 532 Cox Street. The request is conditional upon the approval of a rezoning request to A-2 (PPIN 12368, Ward 5, Forrest County).
p. 280	4.	2025-160	Adopt an Ordinance to approve a zoning change request from B-5 to B-1 made by Tony May, Property Owner/Applicant, for a property located at 1927 Hill Street (PPIN 23321, Ward 5, Forrest County). The Planning Commission recommended approval on February 5th, 2025.
p. 280-281	5.	2025-172	Adopt an Ordinance amending Ordinance number 3369 adopted on February 18, 2025, the Sidewalk Bank Fee-in-Lieu Program, to repeal Section 5.3.(a) of said Ordinance.
p. 281	6.	2025-157	Accept the Planning Commission's recommendation to approve a request for a preliminary plat for a major subdivision made by Legacy Park Residential, LLC, Property Owner/Applicant, for an R-1B zoned property located on Beverly Hills Road (PPIN 26210, Ward 1, Forrest County).
p. 281	7.	2025-159	Accept the Planning Commission’s recommendation to approve a preliminary plat for a major subdivision made by Garland Ross Hover and Lonnie Parden, Property Owners/Applicants, Clearpoint Engineers, Property Owner/Applicant, for B-5 zoned properties located on Jackson Road (PPIN 27624, Ward 3, Lamar County).
p. 282	8.	2025-158	Accept the Planning Commission’s recommendation to approve a Conditional Use Request for gravel surfacing instead of hard surfacing made by Cooperative Energy, Property Owner/Applicant for an A-2 zoned property located at 1519 US Hwy 98-E (PPIN 5467, 5523, 27622 & 27656, Ward 5, Forrest County).
p. 282	9.	2025-161	Accept the Board of Adjustment’s recommendation of approval for a variance request from the maximum front yard fence height requirement of 4ft (LDC 7.9.8.6) to instead allow for 8ft fence for a proposed substation made by Cooperative Energy, Property Owner/Applicant, for an A-2 zoned property located at 1519 US Hwy 98-E (PPIN 5467, 5523, 27622 & 27656, Ward 5, Forrest County).
p. 282-283	10.	2025-162	Accept the Board of Adjustment’s recommendation of approval for variance requests application made by Christen and Brady Raanes, Property Owners for a B-3 zoned property located at 2106 Hardy Street (PPIN 16451, Ward 4, Forrest County). Requested Variances: - a variance from the curb cut requirement of 10ft from the property line to instead allow for a curb cut 5ft from the property line. - a variance from the parking space requirement of 16 parking spaces to instead allow for 9 spaces. - a variance from the landscape island requirement of 8ft wide by 15ft long to allow for 4ft wide by 14ft long. - a variance from the green space requirement of 10ft to instead allow for 8ft of green space. - a variance from the minimum front setback of 30ft to instead allow for 15ft from the property line.
p. 283	11.	2025-164	Adopt Resolutions adjudicating and directing the placement as an assessment for the cleanup costs and applicable penalties, not to exceed the values prescribed by State law, against the following properties.
p. 283	12.	2025-167	Adopt a Resolution setting Public Hearing on Monday, April 7th, 2025 at 4:00 p.m. in the City Council Chambers located at City Hall to determine if certain properties are in such a state of uncleanness so as to be a menace to the health and safety of the community, according to the provision of MS Code 1972, Section 21-19-11.
p. 283	13.	2025-180	-REMOVED-
p. 283-284	14.	2025-176	Adopt a Resolution declaring surplus, signage acquired with the purchase of property at PPIN #18609 and authorize disposition by the execution of a bill-of-sale from the City of Hattiesburg to The Lucky Rabbit, LLC., in accordance with 21-17-1.

p. 284	15.	2025-156	Approve and authorize the Mayor to execute the release of lien documents filed in relation to code enforcement clean-up assessment per attached memo and authorize recording of the same.
p. 284	16.	2025-166	Approve Agreement renewal (Agreement # SDA0169) between the City of Hattiesburg, MS and the National Museum of the United States Air Force for the Community Static Display Loan Program and authorize the Mayor to execute in duplicate.
p. 284	17.	2025-169	Approve a 3-year contract with Environmental Systems Research Institute, Inc. (ESRI) for ArcGIS software access, maintenance and user licenses for a total cost of \$126,600.00 and authorize the Mayor to execute in duplicate.
p. 284-285	18.	2025-174	Approve a Sponsorship Agreement between the City of Hattiesburg and JTR Productions, INC for advertisement sponsorship, in accordance with Mississippi 17-3-1, for an amount not to exceed \$7,500.00 and authorize manual check for the same.
p. 285	19.	2025-175	Approve Engagement Letter from Hicks Law Firm to represent the City of Hattiesburg, in the matter of Cause No. 25-cv-22.
p. 285	20.	2025-181	Ratify and confirm the Mayor's appointment of Jerome Brown (W1) to the Hattiesburg Convention Commission for a two (2) year term beginning March 5, 2025, and ending March 4, 2027.
p. 285	21.	2025-182	Acknowledge bids received on February 13, 2025, for the Katie-Dabbs Community Center Project and accept the bid of M&P Construction as the best bid received and authorize execution of contract upon preparation.
<u>ROUTINE AGENDA</u>			
p. 286	1.	2025-178	Ratify Addendum to the agreement with Norfolk Southern Railway Company to extend Right of Entry access for Hall Avenue Overpass Bridge.
p. 286	2.	2025-183	Ratify the execution of a Warranty Deed for property located at 309 Crestmont Avenue to the City of Hattiesburg in accordance with the Land and Water Conservation Act of 1965, as amended, 16 U.S.C. 4601-5 <i>et seq.</i> (170 ed.)
p. 286	3.	2025-170	Acknowledge receipt of the Two-Quote Docket.
p. 286	4.	2025-171	Acknowledge receipt of bids received on January 30, 2025, for the Engineering Department Term Bids and accept the bids as peer recommendation in the attached memorandum.
p. 286	5.	2025-177	Approve plans and specifications for the Bobby L. Chain Municipal Airport lighting and signage project; Authorize advertisement for bids for same.
p. 286	6.	2025-168	Approve the sale of grave spaces, per attached Memo's, Receipts and Deeds.
p. 286	7.	2025-179	Approve claims docket for the period ending February 28, 2025.
<u>In Memoriam:</u>			
• <i>Mr. James Stewart “Pat” Chambliss</i> • <i>Mr. Kenneth Ray Barnes</i> • <i>Apostle Howard Deshon Gilmore</i> • <i>Ms. Wheeler L. Pope</i> • <i>Mr. Elbert Harris</i> • <i>Mr. R. Lee “Chip” Edmonson, II</i> • <i>Mr. Joseph Russell, Jr.</i>			
Meeting Adjourn			

Call to Order

BE IT REMEMBERED that the **Special Called meeting of the Hattiesburg City Council** was held at **3:00 p.m. Tuesday, March 4, 2025**, (*Due to anticipation of a severe weather, the regular meeting time scheduled for 5:00 p.m., was rescheduled due to a lack of quorum*) in Council Chambers at City Hall; same being from a recessed meeting held on March 3, 2025.

Those present included members of the City Council Jeffrey George, Ward 1; Deborah Delgado, Ward 2 (via teleconference); Carter Carroll, Ward 3; Dave Ware, Ward 4; and Nicholas Brown, Ward 5. Others in attendance included Director of Administration/City Clerk, Kermas Eaton; City Attorney, Randy Pope; Clerk of Council, Ronda S. Kennedy; City staff members; media; and the public.

Absent: Mayor Toby Barker and Deputy Clerk of Council, Lisa Luu Jolly.

Council President George **Called the meeting to order.**

Call to Prayer and Pledge of Allegiance

The prayer was given by Randy Pope.

The Pledge of Allegiance was led by Kermas Eaton.

Presentation Agenda

The PRESENTATION AGENDA came before the Council.

There were no presentations at this time.

Agenda Adjustments:

A MOTION was made by Council Member Carroll and seconded by Council Vice President Ware to

DELETE *Policy Item #15* at the request of the Administration.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

THE MATTER OF THE AGENDA ORDER came before the Council.

POLICY AGENDA

The POLICY AGENDA came before the Council.

1. **2025-163** Approve the minutes for the February 18, 2025 meeting of the City Council.

Attachments: 02-18-2025 Mins.

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **APPROVE** the minutes for the *February 18, 2025* meeting of the City Council.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

2. **2024-390** Take from the table: Adopt an Ordinance to amend the comprehensive zoning district map for a located at 532 Cox Street (PPIN 12368, Ward 5, Forrest County) from R-1C (Single-Family Residential) to A-2 (Agricultural Residential). The Planning Commission recommended approval with conditions on September 4th, 2024.

Attachments: E1 - 532 Cox Street - Staff Summary
 E1 Image Sheet - 532 Cox Street
 532 Cox St- Public Hearing Application_Jordan
 532 Cox St-Community Support
 ORDINANCE - 532 Cox Street
 HPC September- MINUTES

A MOTION was made by Council Member Brown and seconded by Council Member Carroll to **TAKE** **FROM THE TABLE**; an Ordinance to amend the comprehensive zoning district map for a property located at *532 Cox Street* from R-1C to A-2.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 4 - George, Carroll, Ware and Brown

Nays: 1- Delgado (*via teleconference*)

A MOTION was made by Council Member Brown and seconded by Council Member Carroll to **ADOPT** an **ORDINANCE (#3370)** to amend the comprehensive zoning district map for a property located at *532 Cox Street* from R-1C to A-2 with conditions.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 4 - George, Carroll, Ware and Brown

Nays: 1- Delgado (*via teleconference*)

3. **2024-399** Take from the table: Approve the Board of Adjustment's recommendation to approve the request for a variance from the minimum lot size of 43,560 sq ft (1 acre) for an A-2 zoned property to instead allow for a minimum lot size of 16,200 sq ft on a property located at 532 Cox Street. The request is conditional upon the approval of a rezoning request to A-2 (PPIN 12368, Ward 5, Forrest County).

Attachments: B1 - 532 Cox Street - Staff Summary
 B1 Image Sheet - 532 Cox Street
 532 Cox St- Public Hearing Application_Jordan
 532 Cox St-Community Support
 BOA September- MINUTES

A MOTION was made by Council Member Brown and seconded by Council Member Carroll to **TAKE FROM THE TABLE**; the Board of Adjustment's recommendation to approve a variance request to allow a minimum lot size of 16,200 sq ft on an A-2 zoned property located at *532 Cox Street*.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 4 - George, Carroll, Ware and Brown

Nays: 1- Delgado (*via teleconference*)

A MOTION was made by Council Member Brown and seconded by Council Vice President Ware to **APPROVE** the Board of Adjustment's recommendation to approve a variance request to allow a minimum lot size of 16,200 sq ft on an A-2 zoned property located at *532 Cox Street*.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 4 - George, Carroll, Ware and Brown

Nays: 1- Delgado (*via teleconference*)

4. **2025-160** Adopt an Ordinance to approve a zoning change request from B-5 to B-1 made by Tony May, Property Owner/Applicant, for a property located at 1927 Hill Street (PPIN 23321, Ward 5, Forrest County). The Planning Commission recommended approval on February 5th, 2025.

Attachments: D Image Sheet - 1927 Hill Street- Rezoning
 Item D Staff Report- 1927 Hill Street- Rezone Request
 Hill Street Rezone applciation_CC
 1927 Hill Street- Rezone- Ordinance

A MOTION was made by Council Member Brown and seconded by Council Vice President Ware to **ADOPT an ORDINANCE (#3371)** to approve a zoning change request from B-5 to B-1 for a property located at *1927 Hill Street*.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

5. **2025-172** Adopt an Ordinance amending Ordinance number 3369 adopted on February 18, 2025, the Sidewalk Bank Fee-in-Lieu Program, to repeal Section 5.3.(a) of said Ordinance.

Attachments: Sidewalk Bank Program Ordinance_AMENDMENT

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **ADOPT** an **ORDINANCE (#3372)** to amend Ordinance number 3369 (*adopted on February 18, 2025, the Sidewalk Bank Fee-in-Lieu Program*), to repeal Section 5.3.(a) of said Ordinance.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

6.

2025-157

Accept the Planning Commission's recommendation to approve a request for a preliminary plat for a major subdivision made by Legacy Park Residential, LLC, Property Owner/Applicant, for an R-1B zoned property located on Beverly Hills Road (PPIN 26210, Ward 1, Forrest County).

Attachments:

Item A Staff Report- Beverly Hills Road- Major Subdivision

A Image Sheet - Major Subdivision Beverly Hills Road

Application_CC

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **ACCEPT** the planning commission's recommendation to **APPROVE** a request for a preliminary plat for a major subdivision made by Legacy Park Residential, LLC for an R-1B zoned property located on Beverly Hills Road.

Council President George **SUSPENDED Robert's Rules of Order** for the time being.

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **REMOVE** the **MOTION** to accept the Planning Commission's recommendation to approve a request for a preliminary plat for a major subdivision made by Legacy Park Residential, LLC for an R-1B zoned property located on Beverly Hills Road.

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **TABLE** the planning commission's recommendation to approve a request for a preliminary plat for a major subdivision made by Legacy Park Residential, LLC for an R-1B zoned property located on *Beverly Hills Road*.

Following discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

7.

2025-159

Accept the Planning Commission's recommendation to approve a preliminary plat for a major subdivision made by Garland Ross Hover and Lonnie Parden, Property Owners/Applicants, Clearpoint Engineers, Property Owner/Applicant, for B-5 zoned properties located on Jackson Road (PPIN 27624, Ward 3, Lamar County).

Attachments:

Item C Staff Report- Jackson Road- Major Subdivision

C Image Sheet - Major Subdivision Jackson Road

Application_CC

20250103132447839

20241226084606300

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **ACCEPT** the **Planning Commission's recommendation to APPROVE** a preliminary plat for a major subdivision made by Clearpoint Engineers for B-5 zoned properties located on *Jackson Road*.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

8.

2025-158

Accept the Planning Commission's recommendation to approve a Conditional Use Request for gravel surfacing instead of hard surfacing made by Cooperative Energy, Property Owner/Applicant for an A-2 zoned property located at 1519 US Hwy 98-E (PPIN 5467, 5523, 27622 & 27656, Ward 5, Forrest County).
- Attachments:

Item B Staff Report- 1519 US Hwy 98-E- Cooperative Energy Substation

B Image Sheet - 1519 Hwy 98-E- Substation Conditional Use

Application_full CC

20241220142625226

20241220142006074

A MOTION was made by Council Member Brown and seconded by Council Member Carroll to **ACCEPT** the Planning Commission's recommendation to **APPROVE** a Conditional Use Request for gravel surfacing for an A-2 zoned property located at *1519 US Hwy 98-E*.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

9.

2025-161

Accept the Board of Adjustment's recommendation of approval for a variance request from the maximum front yard fence height requirement of 4ft (LDC 7.9.8.6) to instead allow for 8ft fence for a proposed substation made by Cooperative Energy, Property Owner/Applicant, for an A-2 zoned property located at 1519 US Hwy 98-E (PPIN 5467, 5523, 27622 & 27656, Ward 5, Forrest County).
- Attachments:

Item A- Staff Summary- 1519 US Hwy 98-E- Dixie Substation

A Image Sheet - Dixie Substation

Application_full CC

A MOTION was made by Council Member Brown and seconded by Council Member Carroll to **ACCEPT** the Board of Adjustment's recommendation to **APPROVE** a variance request to allow an 8 ft fence for a proposed substation, made by Cooperative Energy, for an A-2 zoned property located at *1519 US Hwy 98-E*.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

10.

2025-162

Accept the Board of Adjustment's recommendation of approval for variance requests application made by Christen and Brady Raanes, Property Owners for a B-3 zoned property located at 2106 Hardy Street (PPIN 16451, Ward 4, Forrest County).
- Variances:

• a variance from the curb cut requirement of 10ft from the property line to instead allow for a curb cut 5ft from the property line

• a variance from the parking space requirement of 16 parking spaces to instead allow for 9 spaces

• a variance from the landscape island requirement of 8ft wide by 15ft long to allow for 4ft wide by 14ft long

• a variance from the green space requirement of 10ft to instead allow for 8ft of green space

• a variance from the minimum front setback of 30ft to instead allow for 15ft from the property line

Attachments:

Item B- Staff Summary- 2106 Hardy Street- Little Wine Shoppe

B Image Sheet - Little Wine Shoppe

24-20 Little Wine Shoppe_PUBLIC HEARING

APPLICATION_CC

24-20 Little Wine Shoppe_VARIANCE ATTACHMENT

24-20 Little Wine Shoppe_VARIANCE DRAWINGS

24-20 Little Wine Shoppe_LEGAL DESCRIPTIONS
- A MOTION was made by Council Vice President Ware and seconded by Council Member Carroll to **ACCEPT** the Board of Adjustment's recommendation to **APPROVE** the following variance requests to allow (for a B-3 zoned property located at *2106 Hardy Street*):

• a curb cut 5ft from the property line

- 9 parking spaces
- a 4 ft-wide by 14 ft-long landscaped island
- an 8ft green space
- a front setback of 15ft from the property line

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

11. **2025-164** Adopt Resolutions adjudicating and directing the placement as an assessment for the cleanup costs and applicable penalties, not to exceed the values prescribed by State law, against the following properties.

Attachments: Adjudication Memo - 03/04/2025
702 McKinley Street Adjudication Resolution
700 McKinley Street Adjudication Resolution
715 McKinley Street Adjudication Resolution
714 McKinley Street Adjudication Resolution
1317 Hall Avenue Adjudication Resolution
1403 Hall Avenue Adjudicatoin Resolution
1307 Hall Avenue Adjudication Resolution

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **ADOPT** **RESOLUTIONS (#2025-66-72)** adjudicating and directing the placement as an assessment for the cleanup costs and applicable penalties, not to exceed the values prescribed by State law, against the following properties.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

12. **2025-167** Adopt a Resolution setting Public Hearing on Monday, April 7th, 2025 at 4:00 p.m. in the City Council Chambers located at City Hall to determine if certain properties are in such a state of uncleanliness so as to be a menace to the health and safety of the community, according to the provision of MS Code 1972, Section 21-19-11.

Attachments: Request to Set Public Hearing – CE 03 04 2025
Request to Set Public Hearing Resolution – CE 03 04 2025

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **ADOPT** a **RESOLUTION (#2025-73) setting Public Hearing on Monday, April 7th, 2025 at 4:00 p.m.** in the City Council Chambers located at City Hall to determine if certain properties are in such a state of uncleanliness so as to be a menace to the health and safety of the community, according to the provision of MS Code 1972, Section 21-19-11.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

13. **2025-180** - REMOVED -

14. **2025-176** Adopt a Resolution declaring surplus, signage acquired with the purchase of property at PPIN #18609, and authorize disposition by the execution of a bill-of-sale from the City of Hattiesburg to The Lucky Rabbit, LLC., in accordance with 21-17-1.

Attachments: SURPLUS RESOLUTION - Barq's Sign
Barq's Sign Photo
Barq's Sign Appraisal

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **ADOPT** a **RESOLUTION (#2025-74)** declaring surplus, signage acquired with the purchase of property at PPIN #18609, and authorize disposition by the execution of a bill-of-sale from the City of Hattiesburg to *The Lucky Rabbit, LLC.*, in accordance with 21-17-1.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

15.

2025-156

- REMOVED -
16.

2025-166

Approve Agreement renewal (Agreement # SDA0169) between the City of Hattiesburg, MS and the National Museum of the United States Air Force for the Community Static Display Loan Program and authorize the Mayor to execute in duplicate.

Attachments: Static Display Packet 2024-2029

A MOTION was made by Council Member Brown and seconded by Council Member Carroll to **APPROVE** Agreement renewal (Agreement # SDA0169) between the City of Hattiesburg, MS and the *National Museum of the United States Air Force for the Community Static Display Loan Program* and **AUTHORIZE** the Mayor to execute in duplicate.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

17.

2025-169

Approve a 3-year contract with Environmental Systems Research Institute, Inc. (ESRI) for ArcGIS software access, maintenance and user licenses for a total cost of \$126,600.00 and authorize the Mayor to execute in duplicate.

Attachments: Q-538810

A MOTION was made by Council Member Brown and seconded by Council Member Carroll to **APPROVE** a 3-year contract with *Environmental Systems Research Institute, Inc. (ESRI)* for *ArcGIS* software access, maintenance and user licenses for a total cost of \$126,600.00 and **AUTHORIZE** the Mayor to execute in duplicate.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

18.

2025-174

Approve a Sponsorship Agreement between the City of Hattiesburg and JTR Productions, INC for advertisement sponsorship, in accordance with Mississippi 17-3-1, for an amount not to exceed \$7,500.00 and authorize manual check for the same.

Attachments: JTR Sponsorship

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **APPROVE** a Sponsorship Agreement between the City of Hattiesburg and *JTR Productions, INC* for advertisement sponsorship, in accordance with Mississippi 17-3-1, for an amount not to exceed \$7,500.00 and **AUTHORIZE** manual check for the same.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

19. **2025-175** Approve Engagement Letter from Hicks Law Firm to represent the City of Hattiesburg, in the matter of Cause No. 25-cv-22.

Attachments: Pope, Randy 02.13.25

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **APPROVE** Engagement Letter from *Hicks Law Firm* to represent the City of Hattiesburg, in the matter of Cause No. 25-cv-22.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

20. **2025-181** Ratify and confirm the Mayor's appointment of Jerome Brown (W1) to the Hattiesburg Convention Commission for a two (2) year term beginning March 5, 2025, and ending March 4, 2027.

Attachments: Data Sheet-Brown

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **RATIFY AND CONFIRM** the Mayor's appointment of *Jerome Brown (W1) to the Hattiesburg Convention Commission* for a two (2) year term beginning March 5, 2025, and ending March 4, 2027.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

21. **2025-182** Acknowledge bids received on February 13, 2025, for the Katie-Dabbs Community Center Project and accept the bid of M&P Construction as the best bid received and authorize execution of contract upon preparation.

Attachments: Council Memorandum
3823 LowBidderOpinion revised 2.20.25
Letter to Mayor and Council re Katie-Dabbs Project bids
3823 Bid Tabulation Executed 2.13.25
M&P Construction Proposal Form 2.13.25
David Rush Construction Proposal Form
Hopkins Construction Proposal Form
JW Chain Contractors Proposal Form
MSP Enterprises Proposal Form

A MOTION was made by Council Member Carroll and seconded by Council Member Brown to **ACKNOWLEDGE** bids received on February 13, 2025, for the *Katie-Dabbs Community Center Project* and **ACCEPT** the bid of *M&P Construction as the best bid received* and **AUTHORIZE** execution of contract upon preparation.

There being no discussion, the Motion received the affirmative vote of the Council as follows:

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

Nays: 0

ROUTINE AGENDA

THE ROUTINE AGENDA came before the Council.

APPROVE the Routine Agenda.

Yeas: 5 - George, Delgado (*via teleconference*), Carroll, Ware and Brown

1.	2025-178	Ratify Addendum to the agreement with Norfolk Southern Railway Company to extend Right of Entry access for Hall Avenue Overpass Bridge.
		<u>Attachments:</u> <u>BR1113606 - DRAFT SUPP CONST AGMT - Construct Hall Ave</u> <u>1985_001</u>
2.	2025-183	Ratify the execution of a Warranty Deed for property located at 309 Crestmont Avenue to the City of Hattiesburg in accordance with the Land and Water Conservation Act of 1965, as amended, 16 U.S.C. 4601-5 <i>et seq.</i> (170 ed.)
		<u>Attachments:</u> <u>Warranty Deed as recorded</u> <u>2004_001</u>
3.	2025-170	Acknowledge receipt of the Two-Quote Docket.
		<u>Attachments:</u> <u>March 4, 2025 Agenda</u>
4.	2025-171	Acknowledge receipt of bids received on January 30, 2025, for the Engineering Department Term Bids and accept the bids as peer recommendation in the attached memorandum.
		<u>Attachments:</u> <u>Item # 25 Concrete & Brick Transportation Structures</u> <u>Memo-Engineering</u>
5.	2025-177	Approve plans and specifications for the Bobby L. Chain Municipal Airport lighting and signage project; Authorize advertisement for bids for same.
		<u>Attachments:</u> <u>Invitation to Bid</u> <u>18635 Project Manual for Bidding</u> <u>18635 Construction Drawings for Bidding</u>
6.	2025-168	Approve the sale of grave spaces, per attached Memo's, Receipts and Deeds.
		<u>Attachments:</u> <u>Memo's (03-04-2025)</u> <u>Receipts (03-04-2025)</u> <u>Deeds (03-04-2025)</u>
7.	2025-179	Approve claims docket for the period ending February 28, 2025.
		<u>Attachments:</u> <u>DOCKET 25.02.28</u> <u>DT 25.02.28</u>

A MOTION was made by Council President George to Adjourn the meeting in *memory of*:

- *Mr. James Stewart “Pat” Chambliss*
- *Mr. Kenneth Ray Barnes*
- *Apostle Howard Deshon Gilmore*
- *Ms. Wheeler L. Pope*
- *Mr. Elbert Harris*
- *Mr. R. Lee “Chip” Edmonson, II*
- *Mr. Joseph Russell, Jr.*
- *State Representative Robert G. Clark, Jr.*

Meeting Adjourn

Council President George declared the **meeting adjourned at 3:17 p.m., this 4th day of March 2025**, by unanimous consent, until the 17th day of March 2025.

ATTEST:

APPROVE:

Clerk of Council

Council President

ATTEST AND CERTIFY:

APPROVE:

City Clerk

Mayor



Memorandum

To: Mayor Toby Barker and Members of City Council

From: Cory Long, Planning Administrator, Wiley Quinn, Urban Development Director

cc: Ann Jones, Chief Administrative Officer

Date: Tuesday, March 18, 2025

Re: Accept the Planning Commission's recommendation and adopt an Ordinance amending the Land Development Code No. 3209, in Section 2 (Applicability and Conformity), Section 5 (Uses), Section 7 (Design), Section 11 (Administration), and Section 13 (Definitions) made by the City of Hattiesburg, concerning short-term rentals and processes.
File Number: 2025-215
Minute Book #

Summary

Accept the Planning Commission's recommendation to approve the request to amend the Land Development Code No. 3209, as amended, in Section 2 (Applicability and Conformity), Section 5 (Uses), Section 7 (Design), Section 11 (Administration), and Section 13 (Definitions) made by the City of Hattiesburg, concerning short-term rentals and processes.

The Planning Commission recommended approval on March 5th, 2025 of the exhibits presented by staff.

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.



URBAN DEVELOPMENT PLANNING DIVISION

MEMORANDUM

TO: Planning Commission and all interested parties
FROM: Planning Division Staff
DATE: December 23, 2024 (Date of memo publication)
SUBJECT: **Short-term rental ordinance and supporting Land Development Code Amendments**

In October of 2024, the City of Hattiesburg held a work session to discuss potential options for regulating short-term rentals. Continued discussion between the city council, the administration, and the Planning Commission has led to the development of a potential ordinance for the City to consider as an option for short-term rental regulation. The general consensus on short-term rentals is that they are seen as a viable option for tourism and other alternative temporary housing solutions.

While short-term rentals can serve as an addition to our community, regulations in place help guarantee the health, safety, and welfare of both citizens and visitors to our city, ensuring the City is still moving forward in its pursuit of becoming a premier city in the Gulf South.

The Planning Division has helped facilitate discussions on a potential ordinance, where the ordinance adopted by Ocean Springs, MS, has served as a model for developing a draft for the City of Hattiesburg. A full copy of the draft ordinance will be available to the public at the Planning Commission meeting on January 8th, 2024, with accompanying amendments to the Land Development Code.

Should you have any questions or wish to share feedback, please contact the Planning Division at 601-545-4599 or by email at planning@hattiesburgms.com. Public comments can be made via email or in person at the public hearing with the Planning Commission.

Prepared by: City of Hattiesburg
City Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601)545-4550

Return to: City of Hattiesburg
City Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403
(601)545-4550

INDEXING INSTRUCTIONS:

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

AN ORDINANCE AMENDING THE LAND DEVELOPMENT CODE,
ORDINANCE NUMBER 3209, AS AMENDED, SECTION 2 APPLICABILITY, SECTION 5 USE
REGULATIONS, AND SECTION 13 DEFINITIONS, FOR THE CITY OF HATTIESBURG,
MISSISSIPPI.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF
HATTIESBURG, MISSISSIPPI:

SECTION 1. That the Land Development Code, Ordinance Number 3209, as amended, of the
City of Hattiesburg, Mississippi, be further amended as follows:

Code Section	Amendment
Section 2.5	Pre-existing Short-Term Rentals. Pre-existing Short-Term rentals will be required to apply for a certificate of zoning compliance within 180 days from the passage of this ordinance. Proof of operation prior to the passage of this ordinance must be shown to qualify for pre-existing status.
Table 5.1	<i>Amend to the Table of uses to add in the appropriate alphabetical order</i> Short Term Rental as Permitted with Conditions in A-1, A-2, R-1A, R-1B, R-1C, R-2, R-3, B-1, B-2, B-3, B-4, B-5
Section 5.4	<i>Insert and adjust the numbering in alphabetical order</i> Short-Term Rental 1. In Agricultural and Residential districts, the use must be located at least 300 feet from another Short-Term Rental. This distance is measured from property line to property line. 2. In B-1, and B-2districts, the use must be located at least 150 feet from another Short-Term Rental. This distance is measured from property line to property line. Buildings Designed and platted as a condominium are exempt from this requirement. 3. Uses approved by the Planning Commission may require additional parking spaces.
Section 13.2	<i>Insert in the correct alphabetical order</i> Short-term rental: means any dwelling or condominium or portion thereof that is available for use or is used for accommodations or lodging of guests, paying a fee or compensation for a period of less than thirty (30) consecutive days. The term does not include any hospital, convalescent or nursing home, shell houses, group homes, sanitarium, or any facility associated with a hospital providing rooms for medical patients and their families. The term shall also not include mobile homes, manufactured homes, group homes, travel trailers, tents, recreational vehicles, campers, or other similar vehicles or structures nor does the term include a bed and breakfast permitted by City ordinances.

SECTION 2. Except as hereby expressly changed and amended, the aforesaid Land

Development Code, Ordinance Number 3209, adopted February 21, 2017, as amended, of said City of Hattiesburg, Mississippi, shall be and remain in full force and form as adopted.

SECTION 3. That this Ordinance take effect and be in force thirty (30) days from and after passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by Councilmember _____, seconded by Councilmember _____, and was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

***AN ORDINANCE AMENDING CODE OF ORDINANCES OF HATTIESBURG,
MISSISSIPPI,
TO PROVIDE FOR SHORT-TERM RENTALS OF DWELLINGS, APPLICATION, AND
APPROVAL***

WHEREAS, it has been brought to the attention of the City that residential property within the City is being used in short-term rentals and the potential issues and problems affiliated with such use must be addressed;

WHEREAS, The City has a legitimate interest in preserving its long-term housing stock and not have such limited resources depleted as there is an influx of individuals and families associated with the military, government contractors and the gaming industry seeking residential opportunities in Hattiesburg; *and*

WHEREAS, the use of short-term rental units as a use in residential zones is considered a valuable and needed use for those desiring to engage their dwelling or condominiums to rent to guests visiting Hattiesburg in exchange for compensation and further provides for another type of short-term stay opportunity similar to hotels, motels and bed and breakfast facilities and will aid and encourage tourism as well as, promote the local economy; *and*

WHEREAS, by requiring conditional use permits for the short-term rental of residential property the City of Hattiesburg will be able to balance the desire of owners to make such use of their property with those owners who desire peace and tranquility in their neighborhoods;

WHEREAS, by requiring conditional use permits for the short rental of residential property, the City of Hattiesburg will be able to investigate applications to assure compliance with the provisions set forth herein, as well as all local, State and Federal laws and will be able to address any adverse impact of short-term rentals; *and*

WHEREAS, it is the intent of the City of Hattiesburg to review the Ordinance annually in order that the City may address any adverse impact of the allowed use of property as short-term rentals; *and*

WHEREAS, The Planning Commission and City Council having held work sessions and having published due notice conduct a public hearing on such proposed changes at which time public testimony was taken and considered; *and*

WHEREAS, after due consideration the Mayor and City Council now find and determine that it would be in the best interest of the City of Hattiesburg that the recommended changes be adopted;

**BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HATTIESBURG,
MISSISSIPPI:**

Amend the Code of ordinances of the City of Hattiesburg, to create Chapter 32 Article X

Section 32-222

1) DEFINITION:

The following words, terms, and phrases, when used in this article shall have the

meanings ascribed to them in this section:

Short-term Rental: means any dwelling or condominium or portion thereof that is available for use or is used for accommodations or lodging of guests, paying a fee or compensation for a period of less than thirty (30) consecutive days. The term does not include any hospital, convalescent or nursing home, shell houses, group homes, sanitarium, or any facility associated with a hospital providing rooms for medical patients and their families. The term shall also not include mobile homes, manufactured homes, group homes, travel trailers, tents, recreational vehicles, campers, or other similar vehicles or structures nor does the term include a bed and breakfast permitted by City ordinances.

Local Property Manager. The person specifically named on the application and permit who is responsible for the day-to-day operation of the short-term rental unit, and who may be contacted and available twenty-four (24) hours a day if there is a problem with the unit. The local property manager may be the owner or agent of the owner and shall reside within Forrest or Lamar County. The local property manager and owner shall be responsible for the management and upkeep of the rental unit in compliance with the provisions set forth herein. The name, address, and telephone number of the owner and the local property manager shall be submitted at the time that the application is filed and said information shall be made available to the public. The owner shall be responsible for providing written notice of any change with respect to the name, address, and telephone number of the local property manager to the City within five (5) days of any such change.

2) PERMIT REQUIRED

IT IS UNLAWFUL TO CONDUCT OR OPERATE A SHORT-TERM RENTAL WITHOUT HAVING OBTAINED A PERMIT THEREFORE.

- A. A Privilege Tax License, Certificate of Zoning Compliance, and Occupancy Limit are required for each short-term lodging rental unit.
- B. The permit process requires an application completed in accordance with the following which may be obtained at the City Tax Department.
 - (1) Application shall contain such information as the City Clerk shall from time to time require, including, but not limited to, the location/address of the short-term rental, the number of rooms therein contained, the number of persons the short-term rental proposes to accommodate, the name of the property owner, the name of the local property manager, sales tax collection, and the name, address and telephone number of the local contact person who is available for contact, copy of the rental agreement, proposed parking plan (*reviewed and determined upon signing and inspection by The Planning Division*) rules, and a plan for trash management, and a copy of the proposed rental agreement.
 - (2) It shall be the duty of the applicant to produce proof to the City Tax Department of homeowner's liability insurance coverage which does not exclude short-term rentals from coverage. Further, the applicant shall provide proof that the insurer has been notified of the insured's intent to use the property as a short-term rental.
 - (3) It shall be the duty of the applicant to produce proof of any mortgage or deed of trust which may encumber the property and submit proof that the mortgage or deed of trust does not prohibit the use of the property as a short-term rental.
 - (4) The application shall include a statement from the applicant affirming that the applicant is in compliance with all applicable zoning requirements, building codes, deed restrictions and/or covenants, and has paid all applicable taxes, fees and other charges including lodging taxes.

- (5) The applicant shall execute a written statement acknowledging that a violation of the ordinances of the City of Hattiesburg may result in the suspension or revocation of the permit.
- (6) A non-refundable application fee of twenty-five dollars (\$25.00) shall be paid by the applicant at the time of filing the application. A licensing fee of three hundred seventy-five dollars (\$375.00) will be assessed for any approved licenses. The most recent fee established by the City Council shall take precedence. Other applicable fees include:
 - \$50 Fire inspection
 - \$25 Certificate of Zoning Compliance (CZC)
 - \$20 Privilege Tax License for a Home Occupation
 - \$375 Short-Term Rental License Fee
- C. The short-term rental unit is in accordance with all applicable fire and health codes as would apply.
- D. Each short-term rental permit shall expire one (1) year from the date of issuance of the permit.
- E. Permit renewal may be obtained for three hundred seventy-five dollars \$375.00 through the City Tax Department. The permit renewal process will include staff review of City records and other documentation pertaining to complaints, if any, that have been received about the specific short-term rental unit under consideration. Filed complaints that are in violation of the zoning codes, building codes, property maintenance, codes and/or applicable laws or regulations will be considered as part of the renewal process. Applicable local, State and Federal laws or regulations may be a basis for denying a permit renewal. If permit renewal is denied, the City Urban Development Division shall provide notice as to the reason for denial and the landowner shall be allowed ten (10) days to correct any deficiencies itemized. At the expiration of ten (10) days, a landowner may appeal the denial of permit renewal to the City Council. The appeal must be in writing and must be filed within ten (10) days following the expiration of the ten (10) day period within which to file correct deficiencies.
- F. Approval of a short-term lodging permit does not legalize any non-permitted use or structure. Short-term rental units are not to be used to distribute retail products or personal services to invitees for marketing or similar purposes. The outdoor display of goods and merchandise for sale is prohibited.
- G. Short-term lodging rental permits are not transferable. Upon sale or any type of transfer of the property, any permit issued pursuant to the terms set forth herein, shall automatically expire. Any new owner(s) or transferee(s) shall be required to apply for a new permit in accordance with this article.
- H. Any structure or unit that is deed-restricted for affordable housing shall not be used as a short-term lodging rental.
- I. Permit capacity will be the total number of permits issued for residential short-term rental shall not exceed two and a half percent (2.5%) of the total number of residential structures in the city at any given time. This number will be tabulated from existing residential water meters at the start of each fiscal year.
 - (1) The City Tax Department will maintain a waiting list for any applicant over the permit capacity. The waiting list time will be 365 days. The city offers no guarantee that being on the wait list will make the applicant approvable in the other provisions of this ordinance. A complete application with the twenty-five dollar (\$25.00) fee is required to be placed on the waiting list.

(2) The waiting list will be used to evaluate the need to adjust capacity.

3) OCCUPANCY

The maximum occupancy of each short-term rental shall be as determined by the Building Official and/or Fire Marshall based on the inspection of the premises and applicable laws, regulations and codes. Each permit shall specify the maximum number of occupants, which may be limited due to building or parking constraints.

4) NUMBER OF VEHICLES

The maximum number of vehicles will be determined upon site inspection by the Building Department and should be compatible with the zoning. This number will be based on off-street parking availability and on-street conditions. It will be preferred that the applicant/owner provide off-street parking. In certain circumstances where no off-street parking exists and on-street constraints exist, the Building Official may require that an off-street parking space be constructed or secured. A fixed amount may be set by the Planning Commission.

5) REGISTRY OF GUESTS

Each person granted a short-term rental permit shall keep or cause to be kept a registry of guests. Such registration or list shall be available for inspection upon ten (10) days written notice by the Building Official or his designee.

6) NOISE

Property owners and local property managers shall ensure that the occupants of the short-term lodging rental are aware of City noise ordinances and State laws regarding disturbing the peace.

7) PREMISES AND GARBAGE MANAGEMENT

It shall be the duty of every local property manager and/or owner to keep all of the rooms in connection with the short-term rental provided for the use of guests, in clean and sanitary condition; and to provide each guest with affective protection against flies, mosquitoes and other vermin. Garbage shall be disposed of in covered containers and placed in the scheduled pick-up location.

8) POSTING OF RULES

Short-term lodging rental unit rules shall be posted inside the rental unit in a location readily visible to all tenants. The rules shall include: occupancy; parking limits; noise, rules and garbage management. A written copy of this Ordinance shall be posted within the unit and displayed at all times.

9) LOCAL CONTACT PERSON

All short-term lodging rentals shall designate a local property manager who will respond to the questions or concerns twenty-four (24) hours a day. The name, address, and telephone number of the local contact person shall be submitted to the Code Enforcement, Tax Department, and City Police Department during the permitting process. The name, address, and telephone number of the local contact person shall be posted permanently inside the short-term rental unit. The local contact person, property manager, and/or property owner shall be considered the responsible person for violations of the Short-term Rental Ordinance.

10) COMPLAINTS AND DISPUTE RESOLUTIONS

Complaints regarding violation of this Ordinance must first be directed to the local contact person. If the local contact person is unable to resolve the issue and/or the issue relates to public safety,

then the concerned party should contact the Code Enforcement Division. The Hattiesburg Police Department shall have an updated list provided by the City Clerk of all local contact persons for short-term rentals in case complaints are received after hours. Verified complaints concerning non-compliance with the terms of this Ordinance may be considered in determining whether or not a permit should be revoked.

11) DENIAL OR REVOCATION OF A LICENSE

Conditions for denial of permit or revocation of permit to operate a Short-term Rental unit shall include but in no way limited to the following:

- A. Property within a subdivision with an active homeowner's association with adopted covenants that do not allow short-term rentals will not be considered for a permit. A letter of acknowledgment and support will be required from the Homeowner's Association in order to continue in the pursuit of a permit. Failure of the applicant to notify the City that his/her property is a part of a Homeowner's Association shall result in denial of a permit or revocation of a permit.
- B. The applicant failed to conform to the conditions set forth herein for the current or previous year.
- C. Guests and/or users of the property were issued noise ordinance and/or disturbing the peace citations during the previous or current year.
- D. Any other reasonable or rational factors or combination of factors, including, but not limited to inadequate lot size, inadequate street parking, lack of response from local property manager or contact person, filed complaints of violation of the zoning code, building code, property maintenance code and/or applicable laws or regulations (may be a basis for denying permit).
- E. The Director of Urban Development in conjunction with the City Clerk are authorized to revoke permits. A permitted owner shall be provided with written notice of the reason(s) the permit is subject to revocation. The applicant shall be allowed ten (10) days from the date written notice is issued to correct defective conditions. If the condition is not corrected within ten (10) days to the satisfaction of the Building Official, permit will be revoked by issuing such and order. Upon receipt of such order by the owner or local property manager, the unit shall cease operation as a short-term rental. The owner may appeal the order revoking the permit. The owner's appeal must be in writing and filed with the Building Department within ten (10) days of entry of the order. The revocation shall remain in full force and effect during the pendency of the appeal. The appeal should be presented to the Mayor and City Council at the next scheduled meeting following the filing of the appeal. The owner should be afforded notice and the opportunity to be heard. The City may appoint a hearing officer to preside over any such appeal.

12) VIOLATIONS:

Any persons or users who allow such use of a residential property in violation of this Ordinance shall be guilty of a misdemeanor.

For purposes of prosecution of violations of this chapter, each day that any violation occurs (*rental without a permit*) is deemed to constitute a separate violation. Those found guilty of such violation shall, upon conviction, be fined for each violation not exceeding \$250.00 for the first offense, not exceeding \$500.00 for the second offense within a calendar year and not exceeding more than \$1,000.00 for other offenses within a calendar year, plus all court costs.

13) CONSTITUTIONALITY

Should any portion, provision or section of this Ordinance be held void, unconstitutional or invalid, the remaining portion of the ordinance shall remain in full force and effect.

14) CONFLICTS

It is hereby provided that the provisions of these regulations shall not be construed as being in conflict with the provisions of any of the regulations of Hattiesburg, Mississippi. In any case where the provisions in these regulations and the provisions of other regulations both apply, the provisions of this Ordinance shall govern for the purpose of short-term rentals of residential dwellings or condominiums.

15) REVIEW

The City shall review the Ordinance annually to evaluate the benefits recognized by the use of Short-term Rentals and any adverse impact the use of Short-term Rentals may have.

SECTION 2. That this Ordinance take effect and be in force thirty (30) days from and after passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by Councilmember _____, seconded by Councilmember _____, and was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 2024.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 2024.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

DRAFT



URBAN DEVELOPMENT PLANNING DIVISION

MEMORANDUM

TO: Planning Commission and all interested parties
FROM: Planning Division Staff
DATE: February 25, 2025
SUBJECT: **Short-Term Rental Ordinance and Land Development Code Updates**

After continued review of the proposed short-term rental ordinance in conjunction with our Planning Commission subcommittee, our building and fire officials, and comments from the public, the planning staff have made revisions to the ordinance and corresponding Land Development Code changes.

Included in this memo, are copies of the ordinances shown with the changes. A final version of these documents will be presented as exhibits at the Planning Commission. Below is a summary of the changes to the ordinances

Changes to the Short-Term Rental Registration Ordinance:

1. Under section 2 "PERMIT REQUIRED"
 - a. The application fee section has been reduced to the following, for a total of \$250:
 - i. \$50 Fire Inspection
 - ii. \$25 Certificate of Zoning Compliance (CZC)
 - iii. \$20 Privilege Tax License fee
 - iv. ~~\$375~~ \$130 Short-Term Rental License Fee
 - v. \$25 Short-term Rental Application Fee
 - b. The renewal fees have also been reduced, to a total of \$170, instead of \$375. A breakdown of those fees has been included in the ordinance as follows:
 - i. \$50 Fire Inspection
 - ii. \$20 Privilege Tax License fee
 - iii. \$100 Short-Term Rental License renewal fee
 - c. Removal of duplicative language on the legality of operating a short-term rental
2. Under section 3 "OCCUPANCY"
 - a. Language has been included for how occupancy is defined and will be determined during the inspection.
 - b. Additional language has been included on what inspections shall focus on
3. Under section 11 "DENIAL OR REVOCATION OF A LICENSE"
 - a. Additional paragraph breaks have been added to section E for clarity; no language was changed.
4. Under section 14 "CONFLICTS"
 - a. Additional language was added for consistency with the most currently adopted building codes.

Changes to the proposed Land Development Code Amendments:

1. Proposed changes to Section 5.4 have been modified to reduce the zoning buffer to 150ft and remove the additional restrictions on B-1 and B-2 Districts:

Section 5.4	<i>Insert and adjust the numbering in alphabetical order</i> Short-Term Rental 1. In Agricultural and Residential districts, the use must be located at least 300 150 feet from another Short-Term Rental. This distance is measured from property line to property line. 2.—In B-1, and B-2 districts, the use must be located at least 150 feet from another Short-Term Rental. This distance is measured from property line to property line. Buildings Designed and platted as a condominium are exempt from this requirement. 3. Uses approved by the Planning Commission may require additional parking spaces.
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Please contact the Planning Division at 601-545-4599 or email planning@hattiesburgms.com. Public comments are also welcome at the Planning Commission's public hearing or via email.

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

***AN ORDINANCE AMENDING CODE OF ORDINANCES OF HATTIESBURG,
MISSISSIPPI,
TO PROVIDE FOR SHORT-TERM RENTALS OF DWELLINGS, APPLICATION, AND
APPROVAL***

WHEREAS, it has been brought to the attention of the City that residential property within the City is being used in short-term rentals and the potential issues and problems affiliated with such use must be addressed;

WHEREAS, The City has a legitimate interest in preserving its long-term housing stock and not have such limited resources depleted as there is an influx of individuals and families associated with the military, government contractors and the gaming industry seeking residential opportunities in Hattiesburg; *and*

WHEREAS, the use of short-term rental units as a use in residential zones is considered a valuable and needed use for those desiring to engage their dwelling or condominiums to rent to guests visiting Hattiesburg in exchange for compensation and further provides for another type of short-term stay opportunity similar to hotels, motels and bed and breakfast facilities and will aid and encourage tourism as well as, promote the local economy; *and*

WHEREAS, by requiring conditional use permits for the short-term rental of residential property the City of Hattiesburg will be able to balance the desire of owners to make such use of their property with those owners who desire peace and tranquility in their neighborhoods;

WHEREAS, by requiring conditional use permits for the short rental of residential property, the City of Hattiesburg will be able to investigate applications to assure compliance with the provisions set forth herein, as well as all local, State and Federal laws and will be able to address any adverse impact of short-term rentals; *and*

WHEREAS, it is the intent of the City of Hattiesburg to review the Ordinance annually in order that the City may address any adverse impact of the allowed use of property as short-term rentals; *and*

WHEREAS, The Planning Commission and City Council having held work sessions and having published due notice conduct a public hearing on such proposed changes at which time public testimony was taken and considered; *and*

WHEREAS, after due consideration the Mayor and City Council now find and determine that it would be in the best interest of the City of Hattiesburg that the recommended changes be adopted;

**BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HATTIESBURG,
MISSISSIPPI:**

Amend the Code of ordinances of the City of Hattiesburg, to create Chapter 32 Article X

Section 32-222

1) DEFINITION:

The following words, terms, and phrases, when used in this article shall have the

meanings ascribed to them in this section:

Short-term Rental: means any dwelling or condominium or portion thereof that is available for use or is used for accommodations or lodging of guests, paying a fee or compensation for a period of less than thirty (30) consecutive days. The term does not include any hospital, convalescent or nursing home, shell houses, group homes, sanitarium, or any facility associated with a hospital providing rooms for medical patients and their families. The term shall also not include mobile homes, manufactured homes, group homes, travel trailers, tents, recreational vehicles, campers, or other similar vehicles or structures nor does the term include a bed and breakfast permitted by City ordinances.

Local Property Manager. The person specifically named on the application and permit who is responsible for the day-to-day operation of the short-term rental unit, and who may be contacted and available twenty-four (24) hours a day if there is a problem with the unit. The local property manager may be the owner or agent of the owner and shall reside within Forrest or Lamar County. The local property manager and owner shall be responsible for the management and upkeep of the rental unit in compliance with the provisions set forth herein. The name, address, and telephone number of the owner and the local property manager shall be submitted at the time that the application is filed and said information shall be made available to the public. The owner shall be responsible for providing written notice of any change with respect to the name, address, and telephone number of the local property manager to the City within five (5) days of any such change.

2) PERMIT REQUIRED

~~IT IS UNLAWFUL TO CONDUCT OR OPERATE A SHORT-TERM RENTAL WITHOUT HAVING OBTAINED A PERMIT THEREFORE.~~

- A. ——— A Privilege Tax License, Certificate of Zoning Compliance, and Occupancy Limit are required for each short-term lodging rental unit.
- B. The permit process requires an application completed in accordance with the following which may be obtained at the City Tax Department.
 - (1)a. ——— Application shall contain such information as the City Clerk shall from time to time require, including, but not limited to, the location/address of the short-term rental, the number of rooms therein contained, the number of persons the short-term rental proposes to accommodate, the name of the property owner, the name of the local property manager, sales tax collection, and the name, address and telephone number of the local contact person who is available for contact, copy of the rental agreement, proposed parking plan (*reviewed and determined upon signing and inspection by The Planning Division*) rules, and a plan for trash management, and a copy of the proposed rental agreement.
 - (2)b. ——— It shall be the duty of the applicant to produce proof to the City Tax Department of homeowner's liability insurance coverage which does not exclude short-term rentals from coverage. Further, the applicant shall provide proof that the insurer has been notified of the insured's intent to use the property as a short-term rental.
 - (3)c. ——— It shall be the duty of the applicant to produce proof of any mortgage or deed of trust which may encumber the property and submit proof that the mortgage or deed of trust does not prohibit the use of the property as a short-term rental.
 - (4)d. ——— The application shall include a statement from the applicant affirming that the applicant is in compliance with all applicable zoning requirements,

building codes, deed restrictions and/or covenants, and has paid all applicable taxes, fees and other charges including lodging taxes.

~~(5)~~e. The applicant shall execute a written statement acknowledging that a violation of the ordinances of the City of Hattiesburg may result in the suspension or revocation of the permit.

~~(6)~~f. A non-refundable application fee of twenty-five dollars (\$25.00) shall be paid by the applicant at the time of filing the application. A licensing fee of ~~threeone~~ hundred ~~seventy-five~~thirty dollars (~~\$375~~130.00) will be assessed for any approved licenses. The most recent fee established by the City Council shall take precedence.

~~Other~~Total applicable fees include:

- \$50 Fire inspection
- \$25 Certificate of Zoning Compliance (CZC)
- \$20 Privilege Tax License for a Home Occupation
- ~~\$375~~130 Short-Term Rental License Fee
- \$25 Short-Term Rental Application Fee

C. The short-term rental unit is in accordance with all applicable fire and health codes as would apply.

D. Each short-term rental permit shall expire one (1) year from the date of issuance of the permit.

E. Permit renewal may be obtained for ~~threeone~~ hundred ~~seventy-five~~ dollars ~~\$375~~100.00 through the City Tax Department. ~~other applicable fees will be required at this time and include but are not limited to a Fire Inspection fee and Privilege Tax License.~~

a. Total Renewal Fees:

- \$50 Fire inspection
- \$20 Privilege Tax License for a Home Occupation
- \$100 Short-Term Rental License Fee

~~E~~.b. The permit renewal process will include staff review of City records and other documentation pertaining to complaints, if any, that have been received about the specific short-term rental unit under consideration. Filed complaints that are in violation of the zoning codes, building codes, property maintenance, codes and/or applicable laws or regulations will be considered as part of the renewal process. Applicable local, State and Federal laws or regulations may be a basis for denying a permit renewal. If permit renewal is denied, the City Urban Development Division shall provide notice as to the reason for denial and the landowner shall be allowed ten (10) days to correct any deficiencies itemized. At the expiration of ten (10) days, a landowner may appeal the denial of permit renewal to the City Council. The appeal must be in writing and must be filed within ten (10) days following the expiration of the ten (10) day period within which to file correct deficiencies.

F. Approval of a short-term lodging permit does not legalize any non-permitted use or structure. Short-term rental units are not to be used to distribute retail products or personal services to invitees for marketing or similar purposes. The outdoor display of goods and merchandise for sale is prohibited.

G. Short-term lodging rental permits are not transferable. Upon sale or any type of transfer of the property, any permit issued pursuant to the terms set forth herein, shall automatically expire. Any new owner(s) or transferee(s) shall be required to apply for a new permit in accordance with this article.

H. Any structure or unit that is deed-restricted for affordable housing shall not be used as

H. a short-term lodging rental.

I. Permit capacity will be the total number of permits issued for residential short-term rental shall not exceed two and a half percent (2.5%) of the total number of residential structures in the city at any given time. This number will be tabulated from existing residential water meters at the start of each fiscal year.

(1)a. The City Tax Department will maintain a waiting list for any applicant over the permit capacity. The waiting list time will be 365 days. The city offers no guarantee that being on the wait list will make the applicant approvable in the other provisions of this ordinance. A complete application with the twenty-five dollar (\$25.00) fee is required to be placed on the waiting list.

(2)b. The waiting list will be used to evaluate the need to adjust capacity.

3) **OCCUPANCY**

The maximum occupancy of each short-term rental shall be as determined by the Building Official and/or Fire Marshall based on the inspection of the premises and applicable laws, regulations and codes. Each permit shall specify the maximum number of occupants, which may be limited due to building or parking constraints. Inspections shall focus on these items:

A. Maximum occupancy is two (2) persons per sleeping room, plus an additional four (4) per dwelling. For residential properties with more than 3,250 square feet of conditioned living space, the maximum occupancy shall be two (2) persons per sleeping room plus an additional six (6). This section shall apply if in conflict with any other code or occupancy regulation adopted by the City. The maximum occupancy of a short-term rental shall be determined at the time a short-term rental permit is issued or renewed. That capacity shall not be increased by subsequent construction of any addition to the structure covered by the permit or by construction of any other structure located on the property without an inspection and approval by building official and submission of an amended registration form;

B. Inspections shall primarily focus on these items:

- a. Smoke detectors
- b. Carbon Monoxide detectors (if applicable)
- c. Fire extinguishers located appropriately throughout the building
- d. Windows that do not have plexiglass
- e. No bars on windows or doors
- f. Safety of utility connections and outlets including electrical, water, sewer, gas, etc.

4) **NUMBER OF VEHICLES**

The maximum number of vehicles will be determined upon site inspection by the Building Department and should be compatible with the zoning. This number will be based on off- street parking availability and on-street conditions. It will be preferred that the applicant/owner provide off-street parking. In certain circumstances where no off-street parking exists and on-street constraints exist, the Building Official may require that an off-street parking space be constructed or secured. A fixed amount may be set by the Planning Commission.

5) **REGISTRY OF GUESTS**

Each person granted a short-term rental permit shall keep or cause to be kept a registry of guests. Such registration or list shall be available for inspection upon ten (10) days written notice by the Building Official or his designee.

6) **NOISE**

Property owners and local property managers shall ensure that the occupants of the short-term lodging rental are aware of City noise ordinances and State laws regarding disturbing the peace.

7) PREMISES AND GARBAGE MANAGEMENT

It shall be the duty of every local property manager and/or owner to keep all of the rooms in connection with the short-term rental provided for the use of guests, in clean and sanitary condition; and to provide each guest with affective protection against flies, mosquitoes and other vermin. Garbage shall be disposed of in covered containers and placed in the scheduled pick-up location.

8) POSTING OF RULES

Short-term lodging rental unit rules shall be posted inside the rental unit in a location readily visible to all tenants. The rules shall include: occupancy; parking limits; noise, rules and garbage management. A written copy of this Ordinance shall be posted within the unit and displayed at all times.

9) LOCAL CONTACT PERSON

All short-term lodging rentals shall designate a local property manager who will respond to the questions or concerns twenty-four (24) hours a day. The name, address, and telephone number of the local contact person shall be submitted to the Code Enforcement, Tax Department, and City Police Department during the permitting process. The name, address, and telephone number of the local contact person shall be posted permanently inside the short-term rental unit. The local contact person, property manager, and/or property owner shall be considered the responsible person for violations of the Short-term Rental Ordinance.

10) COMPLAINTS AND DISPUTE RESOLUTIONS

Complaints regarding violation of this Ordinance must first be directed to the local contact person. If the local contact person is unable to resolve the issue and/or the issue relates to public safety, then the concerned party should contact the Code Enforcement Division. The Hattiesburg Police Department shall have an updated list provided by the City Clerk of all local contact persons for short-term rentals in case complaints are received after hours. Verified complaints concerning non-compliance with the terms of this Ordinance may be considered in determining whether or not a permit should be revoked.

11) DENIAL OR REVOCATION OF A LICENSE

Conditions for denial of permit or revocation of permit to operate a Short-term Rental unit shall include but in no way limited to the following:

- A. Property within a subdivision with an active homeowner's association with adopted covenants that do not allow short-term rentals will not be considered for a permit. A letter of acknowledgment and support will be required from the Homeowner's Association in order to continue in the pursuit of a permit. Failure of the applicant to notify the City that his/her property is a part of a Homeowner's Association shall result in denial of a permit or revocation of a permit.
- B. The applicant failed to conform to the conditions set forth herein for the current or previous year.
- C. Guests and/or users of the property were issued noise ordinance and/or disturbing the peace citations during the previous or current year.

D. Any other reasonable or rational factors or combination of factors, including, but not limited to inadequate lot size, inadequate street parking, lack of response from local property manager or contact person, filed complaints of violation of the zoning code, building code, property maintenance code and/or applicable laws or regulations (may be a basis for denying permit).

~~E.~~ The Director of Urban Development in conjunction with the City Clerk are authorized to revoke permits. A permitted owner shall be provided with written notice of the reason(s) the permit is subject to revocation. The applicant shall be allowed ten (10) days from the date written notice is issued to correct defective conditions. If the condition is not corrected within ten (10) days to the satisfaction of the Building Official, permit will be revoked by issuing such and order. Upon receipt of such order by the owner or local property manager, the unit shall cease operation as a short-term rental. The owner may appeal the order revoking the permit. The owner's appeal must be in writing and filed with the Building Department within ten (10) days of entry of the order. The revocation shall remain in full force and effect during the pendency of the appeal. The appeal should be presented to the

E. Mayor and City Council at the next scheduled meeting following the filing of the appeal. The owner should be afforded notice and the opportunity to be heard. The City may appoint a hearing officer to preside over any such appeal.

12) VIOLATIONS:

Any persons or users who allow such use of a residential property in violation of this Ordinance shall be guilty of a misdemeanor.

For purposes of prosecution of violations of this chapter, each day that any violation occurs (*rental without a permit*) is deemed to constitute a separate violation. Those found guilty of such violation shall, upon conviction, be fined for each violation not exceeding \$250.00 for the first offense, not exceeding \$500.00 for the second offense within a calendar year and not exceeding more than \$1,000.00 for other offenses within a calendar year, plus all court costs.

13) CONSTITUTIONALITY

Should any portion, provision or section of this Ordinance be held void, unconstitutional or invalid, the remaining portion of the ordinance shall remain in full force and effect.

14) CONFLICTS

It is hereby provided that the provisions of these regulations shall not be construed as being in conflict with the provisions of any of the regulations of Hattiesburg, Mississippi. In any case where the provisions in these regulations and the provisions of other regulations both apply, the provisions of this Ordinance shall govern for the purpose of short-term rentals of residential dwellings or condominiums.

Short-Term Rentals shall be reviewed under the International Residential Code of the currently adopted building code year.

15) REVIEW

The City shall review the Ordinance annually to evaluate the benefits recognized by the use of Short-term Rentals and any adverse impact the use of Short-term Rentals may have.

SECTION 2. That this Ordinance take effect and be in force thirty (30) days from and after passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by Councilmember _____, seconded by Councilmember _____, and was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 20242025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 20242025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

Prepared by: City of Hattiesburg
City Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601)545-4550

Return to: City of Hattiesburg
City Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403
(601)545-4550

INDEXING INSTRUCTIONS:

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

AN ORDINANCE AMENDING THE LAND DEVELOPMENT CODE,
ORDINANCE NUMBER 3209, AS AMENDED, SECTION 2 APPLICABILITY, SECTION 5 USE
REGULATIONS, AND SECTION 13 DEFINITIONS, FOR THE CITY OF HATTIESBURG,
MISSISSIPPI.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF
HATTIESBURG, MISSISSIPPI:

SECTION 1. That the Land Development Code, Ordinance Number 3209, as amended, of the
City of Hattiesburg, Mississippi, be further amended as follows:

Code Section	Amendment
Section 2.5	Pre-existing Short-Term Rentals. Pre-existing Short-Term rentals will be required to apply for a certificate of zoning compliance within 180 days from the passage of this ordinance. Proof of operation prior to the passage of this ordinance must be shown to qualify for pre-existing status.
Table 5.1	<i>Amend to the Table of uses to add in the appropriate alphabetical order</i> Short Term Rental as Permitted with Conditions in A-1, A-2, R-1A, R-1B, R-1C, R-2, R-3, B-1, B-2, B-3, B-4, B-5
Section 5.4	<i>Insert and adjust the numbering in alphabetical order</i> Short-Term Rental - In Agricultural and Residential districts, the use must be located at least 300150 feet from another Short-Term Rental. This distance is measured from property line to property line. In B-1, and B-2 districts, the use must be located at least 150 feet from another Short Term Rental. This distance is measured from property line to property line. Buildings Designed and platted as a condominium are exempt from this requirement. Uses approved by the Planning Commission may require additional parking spaces.
Section 13.2	<i>Insert in the correct alphabetical order</i> Short-term rental: means any dwelling or condominium or portion thereof that is available for use or is used for accommodations or lodging of guests, paying a fee or compensation for a period of less than thirty (30) consecutive days. The term does not include any hospital, convalescent or nursing home, shell houses, group homes, sanitarium, or any facility associated with a hospital providing rooms for medical patients and their families. The term shall also not include mobile homes, manufactured homes, group homes, travel trailers, tents, recreational vehicles, campers, or other similar vehicles or structures nor does the term include a bed and breakfast permitted by City ordinances.

SECTION 2. Except as hereby expressly changed and amended, the aforesaid Land

Development Code, Ordinance Number 3209, adopted February 21, 2017, as amended, of said City of Hattiesburg, Mississippi, shall be and remain in full force and form as adopted.

SECTION 3. That this Ordinance take effect and be in force thirty (30) days from and after passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by Councilmember _____, seconded by Councilmember _____, and was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR



Proposed Short Term Rental Regulations

From Chad Edmonson <chad.f.edmonson@gmail.com>

Date Thu 1/2/2025 3:54 PM

To planning <planning@hattiesburgms.com>

Dear Commissioners

It is with significant frustration that I learned that the City of Hattiesburg is considering implementing regulations "to help guarantee the health, safety, and welfare of both citizens and visitors to our city" relating to short term rentals.

Before implementing new regulations, I would expect the City to lay out in detail the rationale for that regulation. Where are Airbnbs a problem? What specific, repetitive complaints have you experienced to date? What specific positive impacts do you expect from regulation? Without that argument laid out in detail, I worry this ordinance is a solution in search of a problem.

Airbnbs have been an unmitigated benefit in the revitalization work I am pursuing in the North Main and Downtown areas. I know of at least five properties in the North Main and Downtown neighborhoods that have been successfully renovated in the past five years to be used for Airbnbs. These Airbnbs help attract renovation investments in areas that have been starved for capital for multiple decades. The tourists that frequent them appreciate the charm and history of these historic areas and help support local businesses, such as restaurants, shops, and cultural sites. This influx of visitors and investment can create a sustainable cycle of economic growth, fostering a sense of pride in the community and stimulating further development.

Following these many pages of rules will add additional cost and complexity to Airbnb development, not to mention uncertainty about how they are going to be enforced. The outcome is going to be a mix of a) significantly curtailing existing AirBnbs and their expected growth in the city limits and b) pushing this use into a gray zone of non-compliance. That is a real cost.

I would remind the Planning Commission of my comments regarding food truck parks when regulations regarding that use were proposed several years ago. As I predicted, we never put in the one we were contemplating on Mobile Street, and neither has anyone else anywhere in the City. And yes, I am frustrated enough about that to say I told you so.

Even if the problems we are experiencing with Airbnbs warrant regulating this use, who is going to ensure compliance? Code? Every commissioner drove past multiple blighted buildings on the way to this meeting. That is a massive problem that already violates existing rules, and we aren't dedicating the resources to deal with it. Additional rules the City expects Code to enforce will just further erode their ability to address their existing workload.

Our policy approach here in Hattiesburg frequently gets this stuff backwards. If you are worried about the supply of residential housing, make it easier to develop residential housing. Focus on increasing the supply rather than limiting the demand. I think Planning could play a very impactful role in helping in that arena with programs like pre-approved home designs.

If you are worried about the other issues embedded in this policy (I counted trash, parking, and noise, but may have missed a few), the City should deal with them directly via tweaking ordinances already in place or providing more resources to Code, Fire Safety, and other departments to enforce existing ordinances.

If you feel like you HAVE to make a change dealing with AirBnbs, then I would encourage you just to limit their use to one every 150 feet in residential and agricultural areas, make an affirmative statement that each AirBnb has to get a privilege tax license (which practically requires most of this regulatory framework to be followed anyway without requiring a whole lot of additional paperwork), and have the City keep up with each AirBnb in a list internally so as to make sure you aren't granting privilege licenses closer than 150 feet. You can do that in one or two pages and scrap most of the "cost" I mentioned above.

Make development easier, not harder, while channeling that development in positive ways.

Sincerely,

Chad Edmonson

Citizen

The Oaks Historic Neighborhood Association

City of Hattiesburg Planning Commission

Subject: Proposed Short-Term Rental Ordinance

Dear Members of the Planning Commission,

This letter expresses the concerns and recommendations of The Oaks Historic Neighborhood Association regarding the proposed amendment concerning short-term rentals within the City of Hattiesburg.

We acknowledge the growing popularity of short-term rentals, but also recognize the potential negative impacts they can have on residential neighborhoods. These potential impacts include:

- **Changes in neighborhood character:** Increased transient populations can alter the social fabric and community feel of a neighborhood.
- **Housing affordability:** The conversion of residential properties into short-term rentals can reduce the availability of long-term rental and for-sale housing, potentially impacting housing affordability for local residents.
- **Quality of life issues:** Concerns exist regarding excessive noise, parking congestion, and increased waste generation.

We believe that a well-crafted ordinance can mitigate these potential negative impacts while also recognizing the economic benefits that short-term rentals can bring to the city.

Therefore, we propose the following recommendations for consideration:

1. Mandatory Licensing:

- All short-term rental properties within the city limits should be required to obtain a valid privilege license.
- The licensing process should include:
 - Registration of the property owner and manager.
 - Provision of contact information for emergencies and maintenance issues.
 - An annual property inspection to ensure compliance with safety standards, such as the presence and operability of fire extinguishers.

2. Parking Regulations:

- Parking regulations for short-term rental properties should be clearly defined and enforced, consistent with existing city guidelines.

3. Clear Communication of City Ordinances:

- All short-term rental property owners and operators should receive written notification of relevant city ordinances regarding waste disposal, noise regulations, and other relevant codes.

We urge the Planning Commission to carefully consider these recommendations as you develop the final short-term rental ordinance. We believe that a well-regulated short-term rental market can contribute positively to the City of Hattiesburg while minimizing potential negative impacts on our neighborhoods.

Sincerely,

Jacqueline G. Wooton

President

The Oaks Historic Neighborhood Association

theoakshburg@gmail.com

Date: January 14, 2024

- 1) Permitting: A onetime fee of \$250 is charged to obtain a Short term rental license. To receive such a permit the following information will be provided to the City Clerk: The address/location of the short term rental, the number of rooms contained therein, the number of person said residence will accommodate, the name of the property owner, the name of the local property manager or management company with the name and phone number of the local individual who is to be contacted to discuss any issues with the short term rental. The name and address of the local contact person will be distributed by the City Clerk to Code Enforcement, Tax Department and Police Department. Once a short-term rental license is given it is good for 2 years from date of issuance and can be renewed with a \$50 fee for a biennial fire inspection. All existing short-term rentals will be grandfathered in and will receive a permit upon paying the one-time fee of \$_____ and by providing the aforementioned date to the City Clerk.
- 2) Each short-term rental will also need a Hattiesburg Privilege Tax License for home occupation.
- 3) The property will be subject to all current parking, noise, garbage and other residential ordinances in place within the City of Hattiesburg.
- 4) The short-term lodging permit does not legalize any non-permitted use or structure, nor can it be used to distribute retail products or personal services, nor are any outdoor displays of goods or merchandise for sale permitted.
- 5) Fire Inspections: The property is subject to a biennial inspection by the Hattiesburg Fire Department to confirm the existence of working smoke detectors, carbon monoxide detectors if natural gas is in use and a working fire extinguisher in the kitchen in accordance with local fire code.
- 6) Posting of Rules: Short term rental unit rules shall be posted inside the rental unit in a location readily available to all tenants.
- 7) Permit Capacity will be the total number of permits issued for residential short term rental shall not exceed 2.5% of the total number of residential structures in the city at any given time. This number will be tabulated from the existing residential water meters at the start of the fiscal year. The Permit Capacity will not apply to Hattiesburg Conservation Districts for the purpose of not limiting investment in under invested neighborhoods.

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

***AN ORDINANCE AMENDING CODE OF ORDINANCES OF HATTIESBURG,
MISSISSIPPI,
TO PROVIDE FOR SHORT-TERM RENTALS OF DWELLINGS, APPLICATION, AND
APPROVAL***

WHEREAS, it has been brought to the attention of the City that residential property within the City is being used in short-term rentals and the potential issues and problems affiliated with such use must be addressed;

WHEREAS, The City has a legitimate interest in preserving its long-term housing stock and not have such limited resources depleted as there is an influx of individuals and families associated with the military, government contractors and the gaming industry seeking residential opportunities in Hattiesburg; *and*

WHEREAS, the use of short-term rental units as a use in residential zones is considered a valuable and needed use for those desiring to engage their dwelling or condominiums to rent to guests visiting Hattiesburg in exchange for compensation and further provides for another type of short-term stay opportunity similar to hotels, motels and bed and breakfast facilities and will aid and encourage tourism as well as, promote the local economy; *and*

WHEREAS, by requiring conditional use permits for the short-term rental of residential property the City of Hattiesburg will be able to balance the desire of owners to make such use of their property with those owners who desire peace and tranquility in their neighborhoods;

WHEREAS, by requiring conditional use permits for the short rental of residential property, the City of Hattiesburg will be able to investigate applications to assure compliance with the provisions set forth herein, as well as all local, State and Federal laws and will be able to address any adverse impact of short-term rentals; *and*

WHEREAS, it is the intent of the City of Hattiesburg to review the Ordinance annually in order that the City may address any adverse impact of the allowed use of property as short-term rentals; *and*

WHEREAS, The Planning Commission and City Council having held work sessions and having published due notice conduct a public hearing on such proposed changes at which time public testimony was taken and considered; *and*

WHEREAS, after due consideration the Mayor and City Council now find and determine that it would be in the best interest of the City of Hattiesburg that the recommended changes be adopted;

**BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HATTIESBURG,
MISSISSIPPI:**

Amend the Code of ordinances of the City of Hattiesburg, to create Chapter 32 Article X

Section 32-222

1) DEFINITION:

The following words, terms, and phrases, when used in this article shall have the

meanings ascribed to them in this section:

Short-term Rental: means any dwelling or condominium or portion thereof that is available for use or is used for accommodations or lodging of guests, paying a fee or compensation for a period of less than thirty (30) consecutive days. The term does not include any hospital, convalescent or nursing home, shell houses, group homes, sanitarium, or any facility associated with a hospital providing rooms for medical patients and their families. The term shall also not include mobile homes, manufactured homes, group homes, travel trailers, tents, recreational vehicles, campers, or other similar vehicles or structures nor does the term include a bed and breakfast permitted by City ordinances.

Local Property Manager. The person specifically named on the application and permit who is responsible for the day-to-day operation of the short-term rental unit, and who may be contacted and available twenty-four (24) hours a day if there is a problem with the unit. The local property manager may be the owner or agent of the owner and shall reside within Forrest or Lamar County. The local property manager and owner shall be responsible for the management and upkeep of the rental unit in compliance with the provisions set forth herein. The name, address, and telephone number of the owner and the local property manager shall be submitted at the time that the application is filed and said information shall be made available to the public. The owner shall be responsible for providing written notice of any change with respect to the name, address, and telephone number of the local property manager to the City within five (5) days of any such change.

2) **PERMIT REQUIRED**

- A. A Privilege Tax License, Certificate of Zoning Compliance, and Occupancy Limit are required for each short-term lodging rental unit.
- B. The permit process requires an application completed in accordance with the following which may be obtained at the City Tax Department.
 - a. Application shall contain such information as the City Clerk shall from time to time require, including, but not limited to, the location/address of the short-term rental, the number of rooms therein contained, the number of persons the short-term rental proposes to accommodate, the name of the property owner, the name of the local property manager, sales tax collection, and the name, address and telephone number of the local contact person who is available for contact, copy of the rental agreement, proposed parking plan (*reviewed and determined upon signing and inspection by The Planning Division*) rules, and a plan for trash management, and a copy of the proposed rental agreement.
 - b. It shall be the duty of the applicant to produce proof to the City Tax Department of homeowner's liability insurance coverage which does not exclude short-term rentals from coverage. Further, the applicant shall provide proof that the insurer has been notified of the insured's intent to use the property as a short-term rental.
 - c. It shall be the duty of the applicant to produce proof of any mortgage or deed of trust which may encumber the property and submit proof that the mortgage or deed of trust does not prohibit the use of the property as a short-term rental.
 - d. The application shall include a statement from the applicant affirming that the applicant is in compliance with all applicable zoning requirements, building codes, deed restrictions and/or covenants, and has paid all applicable taxes, fees and other charges including lodging taxes.
 - e. The applicant shall execute a written statement acknowledging that a violation of the ordinances of the City of Hattiesburg may result in the suspension or revocation

of the permit.

- f. A non-refundable application fee of twenty-five dollars (\$25.00) shall be paid by the applicant at the time of filing the application. A licensing fee of one hundred thirty dollars (\$130.00) will be assessed for any approved licenses. The most recent fee established by the City Council shall take precedence. Total applicable fees include:
 - \$50 Fire inspection
 - \$25 Certificate of Zoning Compliance (CZC)
 - \$20 Privilege Tax License for a Home Occupation
 - \$130 Short-Term Rental License Fee
 - \$25 Short-Term Rental Application Fee
- C. The short-term rental unit is in accordance with all applicable fire and health codes as would apply.
- D. Each short-term rental permit shall expire one (1) year from the date of issuance of the permit.
- E. Permit renewal may be obtained for one hundred dollars \$100.00 through the City Tax Department, other applicable fees will be required at this time and include but are not limited to a Fire Inspection fee and Privilege Tax License.
 - a. Total Renewal Fees:
 - \$50 Fire inspection
 - \$20 Privilege Tax License for a Home Occupation
 - \$100 Short-Term Rental License Fee
 - b. The permit renewal process will include staff review of City records and other documentation pertaining to complaints, if any, that have been received about the specific short-term rental unit under consideration. Filed complaints that are in violation of the zoning codes, building codes, property maintenance, codes and/or applicable laws or regulations will be considered as part of the renewal process. Applicable local, State and Federal laws or regulations may be a basis for denying a permit renewal. If permit renewal is denied, the City Urban Development Division shall provide notice as to the reason for denial and the landowner shall be allowed ten (10) days to correct any deficiencies itemized. At the expiration of ten (10) days, a landowner may appeal the denial of permit renewal to the City Council. The appeal must be in writing and must be filed within ten (10) days following the expiration of the ten (10) day period within which to file correct deficiencies.
- F. Approval of a short-term lodging permit does not legalize any non-permitted use or structure. Short-term rental units are not to be used to distribute retail products or personal services to invitees for marketing or similar purposes. The outdoor display of goods and merchandise for sale is prohibited.
- G. Short-term lodging rental permits are not transferable. Upon sale or any type of transfer of the property, any permit issued pursuant to the terms set forth herein, shall automatically expire. Any new owner(s) or transferee(s) shall be required to apply for a new permit in accordance with this article.
- H. Any structure or unit that is deed-restricted for affordable housing shall not be used as a short-term lodging rental.
- I. Permit capacity will be the total number of permits issued for residential short-term rental shall not exceed two and a half percent (2.5%) of the total number of residential structures in the city at any given time. This number will be tabulated from existing residential water

meters at the start of each fiscal year.

- a. The City Tax Department will maintain a waiting list for any applicant over the permit capacity. The waiting list time will be 365 days. The city offers no guarantee that being on the wait list will make the applicant approvable in the other provisions of this ordinance. A complete application with the twenty-five dollar (\$25.00) fee is required to be placed on the waiting list.
- b. The waiting list will be used to evaluate the need to adjust capacity.

3) OCCUPANCY

The maximum occupancy of each short-term rental shall be as determined by the Building Official and/or Fire Marshall based on the inspection of the premises and applicable laws, regulations and codes. Each permit shall specify the maximum number of occupants, which may be limited due to building or parking constraints. Inspections shall focus on these items:

- A. Maximum occupancy is two (2) persons per sleeping room, plus an additional four (4) per dwelling. For residential properties with more than 3,250 square feet of conditioned living space, the maximum occupancy shall be two (2) persons per sleeping room plus an additional six (6). This section shall apply if in conflict with any other code or occupancy regulation adopted by the City. The maximum occupancy of a short-term rental shall be determined at the time a short-term rental permit is issued or renewed. That capacity shall not be increased by subsequent construction of any addition to the structure covered by the permit or by construction of any other structure located on the property without an inspection and approval by building official and submission of an amended registration form;
- B. Inspections shall primarily focus on these items:
 - a. Smoke detectors
 - b. Carbon Monoxide detectors (if applicable)
 - c. Fire extinguishers located appropriately throughout the building
 - d. Windows that do not have plexiglass
 - e. No bars on windows or doors
 - f. Safety of utility connections and outlets including electrical, water, sewer, gas, etc.

4) NUMBER OF VEHICLES

The maximum number of vehicles will be determined upon site inspection by the Building Department and should be compatible with the zoning. This number will be based on off-street parking availability and on-street conditions. It will be preferred that the applicant/owner provide off-street parking. In certain circumstances where no off-street parking exists and on-street constraints exist, the Building Official may require that an off-street parking space be constructed or secured. A fixed amount may be set by the Planning Commission.

5) REGISTRY OF GUESTS

Each person granted a short-term rental permit shall keep or cause to be kept a registry of guests. Such registration or list shall be available for inspection upon ten (10) days written notice by the Building Official or his designee.

6) NOISE

Property owners and local property managers shall ensure that the occupants of the short-term lodging rental are aware of City noise ordinances and State laws regarding disturbing the peace.

7) PREMISES AND GARBAGE MANAGEMENT

It shall be the duty of every local property manager and/or owner to keep all of the rooms in connection with the short-term rental provided for the use of guests, in clean and sanitary condition; and to provide each guest with affective protection against flies, mosquitoes and other vermin. Garbage shall be disposed of in covered containers and placed in the scheduled pick-up location.

8) POSTING OF RULES

Short-term lodging rental unit rules shall be posted inside the rental unit in a location readily visible to all tenants. The rules shall include: occupancy; parking limits; noise, rules and garbage management. A written copy of this Ordinance shall be posted within the unit and displayed at all times.

9) LOCAL CONTACT PERSON

All short-term lodging rentals shall designate a local property manager who will respond to the questions or concerns twenty-four (24) hours a day. The name, address, and telephone number of the local contact person shall be submitted to the Code Enforcement, Tax Department, and City Police Department during the permitting process. The name, address, and telephone number of the local contact person shall be posted permanently inside the short-term rental unit. The local contact person, property manager, and/or property owner shall be considered the responsible person for violations of the Short-term Rental Ordinance.

10) COMPLAINTS AND DISPUTE RESOLUTIONS

Complaints regarding violation of this Ordinance must first be directed to the local contact person. If the local contact person is unable to resolve the issue and/or the issue relates to public safety, then the concerned party should contact the Code Enforcement Division. The Hattiesburg Police Department shall have an updated list provided by the City Clerk of all local contact persons for short-term rentals in case complaints are received after hours. Verified complaints concerning non-compliance with the terms of this Ordinance may be considered in determining whether or not a permit should be revoked.

11) DENIAL OR REVOCATION OF A LICENSE

Conditions for denial of permit or revocation of permit to operate a Short-term Rental unit shall include but in no way limited to the following:

- A. Property within a subdivision with an active homeowner's association with adopted covenants that do not allow short-term rentals will not be considered for a permit. A letter of acknowledgment and support will be required from the Homeowner's Association in order to continue in the pursuit of a permit. Failure of the applicant to notify the City that his/her property is a part of a Homeowner's Association shall result in denial of a permit or revocation of a permit.
- B. The applicant failed to conform to the conditions set forth herein for the current or previous year.
- C. Guests and/or users of the property were issued noise ordinance and/or disturbing the peace citations during the previous or current year.
- D. Any other reasonable or rational factors or combination of factors, including, but not limited to inadequate lot size, inadequate street parking, lack of response from local property manager or contact person, filed complaints of violation of the zoning code, building code, property maintenance code and/or applicable laws or regulations (may be a

basis for denying permit).

- E. The Director of Urban Development in conjunction with the City Clerk are authorized to revoke permits. A permitted owner shall be provided with written notice of the reason(s) the permit is subject to revocation. The applicant shall be allowed ten (10) days from the date written notice is issued to correct defective conditions. If the condition is not corrected within ten (10) days to the satisfaction of the Building Official, permit will be revoked by issuing such and order. Upon receipt of such order by the owner or local property manager, the unit shall cease operation as a short-term rental. The owner may appeal the order revoking the permit. The owner's appeal must be in writing and filed with the Building Department within ten (10) days of entry of the order. The revocation shall remain in full force and effect during the pendency of the appeal. The appeal should be presented to the Mayor and City Council at the next scheduled meeting following the filing of the appeal. The owner should be afforded notice and the opportunity to be heard. The City may appoint a hearing officer to preside over any such appeal.

12) VIOLATIONS:

Any persons or users who allow such use of a residential property in violation of this Ordinance shall be guilty of a misdemeanor.

For purposes of prosecution of violations of this chapter, each day that any violation occurs (*rental without a permit*) is deemed to constitute a separate violation. Those found guilty of such violation shall, upon conviction, be fined for each violation not exceeding \$250.00 for the first offense, not exceeding \$500.00 for the second offense within a calendar year and not exceeding more than \$1,000.00 for other offenses within a calendar year, plus all court costs.

13) CONSTITUTIONALITY

Should any portion, provision or section of this Ordinance be held void, unconstitutional or invalid, the remaining portion of the ordinance shall remain in full force and effect.

14) CONFLICTS

It is hereby provided that the provisions of these regulations shall not be construed as being in conflict with the provisions of any of the regulations of Hattiesburg, Mississippi. In any case where the provisions in these regulations and the provisions of other regulations both apply, the provisions of this Ordinance shall govern for the purpose of short-term rentals of residential dwellings or condominiums.

Short-Term Rentals shall be reviewed under the International Residential Code of the currently adopted building code year.

15) REVIEW

The City shall review the Ordinance annually to evaluate the benefits recognized by the use of Short-term Rentals and any adverse impact the use of Short-term Rentals may have.

SECTION 2. That this Ordinance take effect and be in force thirty (30) days from and after passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by

Councilmember _____, seconded by Councilmember _____, and
was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and
approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this
the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

Prepared by: City of Hattiesburg
City Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601)545-4550

Return to: City of Hattiesburg
City Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403
(601)545-4550

INDEXING INSTRUCTIONS:

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

AN ORDINANCE AMENDING THE LAND DEVELOPMENT CODE,
ORDINANCE NUMBER 3209, AS AMENDED, SECTION 2 APPLICABILITY, SECTION 5 USE
REGULATIONS, AND SECTION 13 DEFINITIONS, FOR THE CITY OF HATTIESBURG,
MISSISSIPPI.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF
HATTIESBURG, MISSISSIPPI:

SECTION 1. That the Land Development Code, Ordinance Number 3209, as amended, of the
City of Hattiesburg, Mississippi, be further amended as follows:

Code Section	Amendment
Section 2.5	Pre-existing Short-Term Rentals. Pre-existing Short-Term rentals will be required to apply for a certificate of zoning compliance within 180 days from the passage of this ordinance. Proof of operation prior to the passage of this ordinance must be shown to qualify for pre-existing status.
Table 5.1	<i>Amend to the Table of uses to add in the appropriate alphabetical order</i> Short Term Rental as Permitted with Conditions in A-1, A-2, R-1A, R-1B, R-1C, R-2, R-3, B-1, B-2, B-3, B-4, B-5
Section 5.4	<i>Insert and adjust the numbering in alphabetical order</i> Short-Term Rental 1. In Agricultural and Residential districts, the use must be located at least 150 feet from another Short-Term Rental. This distance is measured from property line to property line.
Section 13.2	<i>Insert in the correct alphabetical order</i> Short-term rental: means any dwelling or condominium or portion thereof that is available for use or is used for accommodations or lodging of guests, paying a fee or compensation for a period of less than thirty (30) consecutive days. The term does not include any hospital, convalescent or nursing home, shell houses, group homes, sanitarium, or any facility associated with a hospital providing rooms for medical patients and their families. The term shall also not include mobile homes, manufactured homes, group homes, travel trailers, tents, recreational vehicles, campers, or other similar vehicles or structures nor does the term include a bed and breakfast permitted by City ordinances.

SECTION 2. Except as hereby expressly changed and amended, the aforesaid Land
Development Code, Ordinance Number 3209, adopted February 21, 2017, as amended, of said City of
Hattiesburg, Mississippi, shall be and remain in full force and form as adopted.

SECTION 3. That this Ordinance take effect and be in force thirty (30) days from and after
passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by Councilmember _____, seconded by Councilmember _____, and was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR



Memorandum

To: Mayor Toby Barker and Members of City Council

From:

cc:

Date: Tuesday, March 18, 2025

Re: Accept the Planning Commission's recommendation and adopt an Ordinance amending the Land Development Code Ord. No. 3209, in Section 6 (Dimensions), Section 11 (Administration), and Section 12 (Processes), made by the City of Hattiesburg, concerning a fee-in-lieu program for Sidewalks.
File Number: 2025-216
Minute Book #

Summary

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.



URBAN DEVELOPMENT PLANNING DIVISION

MEMORANDUM

TO: Planning Commission and all interested parties
FROM: Planning Division Staff
DATE: January 15, 2025 (Date of memo publication)
SUBJECT: **Sidewalk Bank Fee-in-Lieu Program and Associated Land Development Code Amendments**

The City of Hattiesburg recognizes the importance of pedestrian infrastructure for community safety, accessibility, and connectivity. To advance these goals, the City is proposing to establish a Sidewalk Bank Fee-in-Lieu Program. This initiative aims to provide developers with practical alternatives in areas where sidewalks are not immediately feasible, while ensuring that resources are effectively allocated to enhance pedestrian infrastructure in high-priority areas.

The program allows developers to contribute funds to a dedicated Sidewalk Bank Fund instead of constructing sidewalks on-site. These funds will be used exclusively for pedestrian infrastructure improvements in high-need areas identified in the City's Pathways Master Plan.

The proposed ordinance identifies specific corridors where sidewalks may be impractical due to existing conditions or regulatory constraints, such as MDOT right-of-way restrictions. These eligible corridors include:

- Highway 49 north of its intersection with Interstate 59
- Highway 49 south of Old Airport Road
- Highway 98/Hardy Street corridor west of its intersection with Interstate 59
- Highway 98 E along the southernmost boundary of the City Limits

Eligible properties directly abutting these corridors can benefit from administrative approval through the site and design review process. Properties outside these corridors may still participate but require conditional use approval from Planning Commission and City Council.

Fee-in-lieu contributions will be calculated based on a standardized per-linear-foot cost of sidewalk construction or verified contractor estimates. These contributions will be allocated exclusively to constructing or enhancing pedestrian infrastructure in high-need

areas, ensuring alignment with the City's Pathways Master Plan. Contributions are tracked in an annual report to the City Council, ensuring transparency and accountability.

In conjunction with the fee-in-lieu program, the City is proposing amendments to the Land Development Code. These amendments include requiring sidewalks in all zoning districts, including agricultural and industrial zones, while allowing these districts to participate in the program through administrative approval. This approach balances flexibility in areas where sidewalks may be impractical with the City's commitment to improving pedestrian connectivity.

The current Land Development Code exempts agricultural and industrial-zoned properties from the sidewalk requirements. The proposed amendments to the Land Development Code would require all zoning districts to install sidewalks. While agricultural and industrial-zoned properties would be required to install sidewalks (upon new / re-development) under these changes, these specific zoning districts would be eligible to participate in the Sidewalk Fee-in-Lieu program with administrative approval.

We encourage all stakeholders to share their questions and feedback on this proposed program. Please contact the Planning Division at 601-545-4599 or email planning@hattiesburgms.com. Public comments are also welcome at the Planning Commission's public hearing or via email.

Prepared by: City of Hattiesburg
City Clerk's Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601)545-4550

Return to: City of Hattiesburg
City Clerk's Office
P.O. Box 1898
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(601)545-4550

INDEXING INSTRUCTIONS:

ORDINANCE NUMBER _____ OF THE CITY OF HATTIESBURG, MISSISSIPPI

SIDEWALK BANK FEE-IN-LIEU PROGRAM

AN ORDINANCE AMENDING THE CODE OF ORDINANCE OF HATTIESBURG, MISSISSIPPI, TO ESTABLISH A SIDEWALK BANK PROGRAM PROVIDING DEVELOPERS WITH AN ALTERNATIVE FEE-IN-LIEU TO ON-SITE SIDEWALK CONSTRUCTION AND TO PROMOTE PEDESTRIAN INFRASTRUCTURE DEVELOPMENT IN HIGH-PRIORITY AREAS OF NEED WITHIN THE CITY OF HATTIESBURG.

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HATTIESBURG, MISSISSIPPI:

WHEREAS, the City of Hattiesburg recognizes the importance of sidewalks and pedestrian infrastructure for the safety, accessibility, and welfare of its residents; and

WHEREAS, the City has developed a **Pathways Master Plan** that outlines a comprehensive approach to enhancing pedestrian and bicycle infrastructure to improve mobility and connectivity throughout the community; and

WHEREAS, the City acknowledges that in certain developments or locations, on-site sidewalk construction may not align with existing pedestrian needs or may be impractical due to the nature of the site or surrounding area; and

WHEREAS, Mississippi law grants municipalities the authority to enact ordinances promoting the general welfare, health, and safety of their residents, including infrastructure improvements and public safety enhancements; and

WHEREAS, the City of Hattiesburg seeks to establish a Sidewalk Bank Program as an alternative compliance option for developers, with funds directed solely toward sidewalk projects in areas of demonstrated need as identified in the **Pathways Master Plan** and in High-priority areas; and

NOW, THEREFORE, be it ordained by the City Council of the City of Hattiesburg, Mississippi, as follows:

SECTION 1. Definitions

For the purposes of this ordinance, the following terms shall have the meanings indicated:

1. **Department of Engineering and Transportation:** The department of engineering shall have responsibility for the supervision, management, operation, and direction of infrastructure and other engineering-related projects; the director shall work closely with the directors of the water and public works departments, and with the city's consulting engineers.
2. **Department of Urban Development:**
 1. The Department of Urban Development shall have responsibility for the administration, supervision, management, operation, and direction of the divisions of code enforcement, federal and state programs, land code administration, and planning.
3. **Developer:** Any person engaging in developing or improving a lot or group of lots or placing structures thereon for use or occupancy.
4. **Development:** Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or a drilling operation
5. **Fee-in-Lieu:** A monetary contribution made by a developer to the Sidewalk Bank Fund as an alternative to constructing required sidewalks on-site, calculated based on a per-linear-foot cost of sidewalk construction.
6. **High-Priority Areas:** Locations identified in the Pathways Master Plan that demonstrate a significant need for pedestrian infrastructure improvements based on factors such as safety concerns, proximity to schools and parks, and existing pedestrian traffic patterns. These areas are determined based on criteria, including, but not limited to:
 1. Proximity to schools, parks, public transit stops, and community facilities
 2. Areas with documented safety concerns, such as high pedestrian accident rates
 3. Locations with significant gaps in existing sidewalk networks
 4. Commercial and mixed-use districts with demonstrated pedestrian activity

5. Neighborhoods with high population density or vulnerable populations
6. Corridors identified for economic development or revitalization where pedestrian access could enhance connectivity and growth
7. **On-Site Sidewalk Construction:** The physical installation of sidewalks as required by the City's existing development regulations at the site of a proposed development.
8. **Pathways Master Plan:** The City of Hattiesburg's official document, as prepared for the Hattiesburg-Petal-Forrest-Lamar MPO, that outlines the vision, goals, and specific projects for enhancing pedestrian and bicycle infrastructure throughout the city, as adopted by the City Council in April of 2015.
9. **Pedestrian Infrastructure:** Facilities and amenities designed for pedestrian use, including but not limited to sidewalks, crosswalks, pathways, and related safety features.
10. **Sidewalk Bank Fee-in-Lieu Program:** A voluntary program established by the City of Hattiesburg that allows developers, at their discretion, to contribute funds in lieu of constructing sidewalks on-site, with those funds designated for sidewalk construction and improvements in areas identified as needing pedestrian infrastructure or improvements.
11. **Sidewalk Bank Fund:** A dedicated fund established within the City's financial system that collects contributions made under the Sidewalk Bank Program, used solely for sidewalk projects and improvements as identified in the Pathways Master Plan.
12. **Site and design review committee:** As established by the Land Development Code, its purpose shall be to utilize to the fullest extent possible its individual and collective technical expertise, to coordinate and expedite the review, processing and pre-hearing procedures as they may apply to the Land Development Code, and all development and building codes and all applicable City Codes.

SECTION 2. Purpose and Intent

The purpose of this ordinance is to establish a Sidewalk Bank Program, which allows developers the option to contribute funds in lieu of constructing sidewalks on-site where it is determined that such construction is unnecessary or impractical for sidewalks required under section 7 of the Land Development Code. The program's intent is to allocate these funds to construct sidewalks in areas where pedestrian infrastructure is more urgently needed, as identified in the City's **Pathways Master Plan**.

SECTION 3. Establishment of the Sidewalk Bank Program

The Sidewalk Bank Program (hereinafter "Program") is hereby established as an alternative compliance option for sidewalk construction requirements. Funds collected under this Program shall be exclusively used to fund sidewalk construction, improvements, or repairs in designated high-need pedestrian areas within the City of Hattiesburg as specified in the **Pathways Master Plan**.

SECTION 4. Program Administration

1. **Administration:** The Program shall be administered by the Department of Engineering in coordination with the Department of Urban Development and the Site and Design Review Committee.

2. **Sidewalk Bank Fund:** A designated “Sidewalk Bank Fund” shall be established within the City’s financial system, and all contributions made under this Program shall be deposited into this fund. This fund shall be used solely for pedestrian infrastructure improvements for areas identified in the **Pathways Master Plan** and **High-Priority Areas** as specified in this ordinance.
3. **Annual Report:** The Department of Engineering and Transportation shall submit an annual report to the City Council detailing the contributions made to the Sidewalk Bank Fund, projects funded, and future planned expenditures in alignment with the **Pathways Master Plan**.

SECTION 5. Eligibility and Application Process

1. **Eligibility for Participation:** Developers may apply for the alternative compliance option through the Sidewalk Bank Program when:
 - a) The site for development is located in an area where on-site sidewalk construction is deemed unnecessary based on surrounding land uses, pedestrian traffic patterns, or existing infrastructure;
 - b) On-site sidewalk construction is impractical due to topographic, environmental, or physical constraints.
2. **Areas eligible for administrative approval:**
 - a) The section of the US Highway 49 corridor north of its intersection with Interstate-59
 - b) The section of the US Highway 49 corridor south of Old Airport Road
 - c) Highway 98/Hardy Street corridor west of its intersection with Interstate 59
 - d) The section of the US Highway 98 corridor that follows the southernmost boundary of the City Limits that has intersections with Elks Lake Road, US Highway 49, and W. L. Runnels Drive.
 1. See Exhibit A of this ordinance providing a map of the areas eligible for administrative approval. Only properties directly abutting these corridors would be eligible.
 - e) Any property zoned Industrial that is bound by industrially zoned properties on either side of the proposed development along the same corridor
 - f) Any property zoned agricultural that is bound by agriculturally zoned properties on either side of the proposed development along the same corridor
 - g) Any property annexed into the City of Hattiesburg after the effective date of this ordinance.
3. **All other areas are eligible to participate in the sidewalk bank program by legislative approval, following the same procedures as a conditional use, as outlined in section 12 of the Land Development Code, Ord. No. 3209, as amended:**
 - a) A variance shall not be substituted for the construction of sidewalks. Sidewalks shall be constructed as required by the Land Development Code, or developers may voluntarily participate in the sidewalk bank program.
4. **Retroactive Clause:** Any development that has been approved by the site and design review committee and building permits have been issued, but has not yet received a certificate of zoning compliance may participate in the sidewalk bank fee-in-lieu program upon request by the developer, following all other provisions of this ordinance.

5. **Application and Approval:** To participate in the Program, the developer must apply to the Department of Urban Development, providing details of the proposed development and reasons for opting into the Sidewalk Bank Program. Approval is subject to the Site and Design Review Committee and Administration's review and determination that participation aligns with the City's pedestrian infrastructure goals as outlined in the **Pathways Master Plan**.
 - a) All requests must meet the eligibility for participation.
 - b) For projects not within the areas eligible for administrative approval, applicants will be required to submit a public hearing application following the requirements of a conditional use request.
6. **Fee-in-Lieu Contribution:** Developers approved to participate in the Program shall make a contribution to the Sidewalk Bank Fund in an amount calculated as follows:
 - a) The fee shall be based on a per-linear-foot cost of sidewalk construction for the proposed site as determined by the City's most recent cost estimates.
 - b) The contribution amount will be reviewed and adjusted annually by the Department of Engineering and Transportation based on current market rates.
 1. Alternatively, Developers opting for a fee-in-lieu of sidewalk construction may submit three itemized cost estimates from licensed contractors qualified in sidewalk or public infrastructure construction, following the city's standard scope of work. The city will review and select either the average of the estimates as the fee-in-lieu amount, subject to verification and adherence to current market conditions. Estimates must be obtained within 45 days of submission and reflect comparable project requirements as established by the city.
 2. An application fee of \$250 is also required for staff time and processing.

SECTION 6. Use of Sidewalk Bank Funds

1. **Designated Areas:** Funds from the Sidewalk Bank shall be used solely for sidewalk and pedestrian improvement projects in **High-Priority Areas** or areas identified under the **Pathways Master Plan** within the limits of the City of Hattiesburg, including but not limited to:
 - o Near schools, parks, and public facilities
 - o Commercial districts with high pedestrian traffic
 - o Areas with safety concerns related to pedestrian access
2. **Project Selection:** The Department of Engineering and Transportation, in consultation with the Department of Urban Development, and City Administration, shall identify and prioritize sidewalk projects eligible for funding from the Sidewalk Bank based on criteria established in the **Pathways Master Plan** and **High-Priority Areas**, as defined in the definitions section of this ordinance.

SECTION 7. Transparency and Accountability

To ensure transparency, the City shall make available a public record of the Sidewalk Bank Fund's balance, expenditures, and completed projects. An annual report detailing the use and impact of the Program shall be submitted to the City Council and made available to the public

and in compliance with all sections of Mississippi Code Ann. § 7-7-211, § 21-17-5, § 21-35-25, and § 21-37-5.

SECTION 8. Severability

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end, the provisions of this ordinance are declared severable.

SECTION 9. Codification and Renumbering

The sections and subsections of this ordinance are numbered for organizational purposes. Upon incorporation into the City of Hattiesburg's municipal code, this ordinance shall be codified under Chapter 46, Article VII. The numbering and lettering of sections, subsections, or cross-references shall be done to conform to the existing format and organization of the code, without altering the content or intended placement of this ordinance. If Chapter 46, Article VII is later amended, reorganized, or renumbered as part of a broader amendment, this ordinance shall be renumbered or restructured as necessary to maintain consistency within the code, without altering the substance or intent of the ordinance or in its intended placement into Chapter 46 - Streets, Sidewalks, and other Public Places.

SECTION 10. Effective Date

This ordinance shall take effect immediately upon its passage and publication, as it is deemed necessary for the immediate public welfare to promote the timely construction and enhancement of pedestrian infrastructure within the City of Hattiesburg. Thus, in accordance with state law MS Code § 21-13-11, this ordinance addresses current safety concerns for pedestrians.

The foregoing Ordinance having been reduced to writing, the same was introduced by Council member _____ seconded by Council member _____, and was adopted by the following vote to wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above and foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

DRAFT

Prepared by: City of Hattiesburg
City Clerk's Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601)545-4550

Return to: City of Hattiesburg
City Clerk's Office
P.O. Box 1898
Hattiesburg, MS 39403
(601)545-4550

INDEXING INSTRUCTIONS:

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

**AN ORDINANCE AMENDING THE LAND DEVELOPMENT CODE,
ORDINANCE NUMBER 3209, AS AMENDED, SECTION 7 STANDARDS OF DESIGN,
SECTION 12 PROCESSES AND PROCEDURES, AND SECTION 13 DEFINITIONS, FOR THE
CITY OF HATTIESBURG, MISSISSIPPI.**

**BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF
HATTIESBURG, MISSISSIPPI:**

SECTION 1. That the Land Development Code, Ordinance Number 3209, as amended, of the City of Hattiesburg, Mississippi, be further amended as follows:

Code Section	Amendment <i>Explanation of amendment in italics</i>
Section 7.6.1.1	<i>Amend to read as follows:</i> 7.6.1.1 Sidewalks shall be provided along all public streets on the entire frontage of a development site and align with existing sidewalks on adjacent properties, including both frontages on corner lots. The minimum sidewalk width is five feet. Additional width may be required as determined by Site and Design Review. Where on-site construction is impractical or unnecessary, developers may contribute to the <u>Sidewalk Bank Fee-in-Lieu Program</u>, subject to approval.
Section 7, Table 7.1, Section 7.6.1.1	<i>Requirement for sidewalks in all zones</i> Amend to add zones A-1, A-2, I-1, and I-2 as <i>required</i> in Table 7.1

Section 7, Table 7.1, Section 7.6.1.2	<i>Amend to adjust for consistency in design standards for all zones</i> Amend to add zones A-1 and A-2 as required in Table 7.1
Section 7, Table 7.1, Section 7.6.1.3	<i>Amend to adjust for consistency in design standards for all zones</i> Amend to add zones A-1, A-2, I-1, and I-2 as required Table 7.1
Section 7, Table 7.1, Section 7.6.1.4	<i>Amend to adjust for consistency in design standards for all zones</i> Amend to add zones A-1 and A-2 as required in Table 7.1
Section 7, Table 7.1, Section 7.6.1.5	<i>Amend to adjust for consistency in design standards for all zones</i> Amend to add zones A-1 and A-2 as required in Table 7.1
Section 7, Table 7.1, Section 7.6.1.6	<i>Amend to adjust for consistency in design standards for all zones</i> Amend to add zones A-1 and A-2 as required in Table 7.1
Section 7, Table 7.1, Section 7.6.1.7	<i>Amend to adjust for consistency in design standards for all zones</i> Amend to add zones A-1 and A-2 as required in Table 7.1
Add Section 12.4.1.0	<i>Add the following section under Section 12.4.1, with correct numeration to be consistent with the Sidewalk Bank Fee-in-Lieu Program Ordinance:</i> Variances shall not be substituted for the construction of sidewalks. Sidewalks shall be constructed as required by the Land Development Code, or developers may voluntarily participate in the sidewalk bank program.
Section 13.2, Definition	<i>Amend to add the following definition in the correct alphabetized order</i> Sidewalk Bank Fee-in-Lieu Program: A voluntary program established by the City of Hattiesburg that allows developers, at their discretion, to contribute funds in lieu of constructing sidewalks on-site, with those funds designated for sidewalk construction and improvements in areas identified as needing pedestrian infrastructure or improvements.

SECTION 2. Except as hereby expressly changed and amended, the aforesaid Land Development Code, Ordinance Number 3209, adopted February 21, 2017, as amended, of said City of Hattiesburg, Mississippi, shall be and remain in full force and form as adopted.

SECTION 3. This ordinance shall take effect immediately upon its passage and publication, as it is deemed necessary for the immediate public welfare to promote the timely construction and enhancement of pedestrian infrastructure within the City of Hattiesburg. Thus, in accordance with state law MS Code § 21-13-11, this ordinance addresses current safety concerns for pedestrians.

The foregoing Ordinance having been reduced to writing, the same was introduced by Councilmember _____ seconded by Councilmember _____, and was

adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

February 1, 2025

Dear Commissioners,

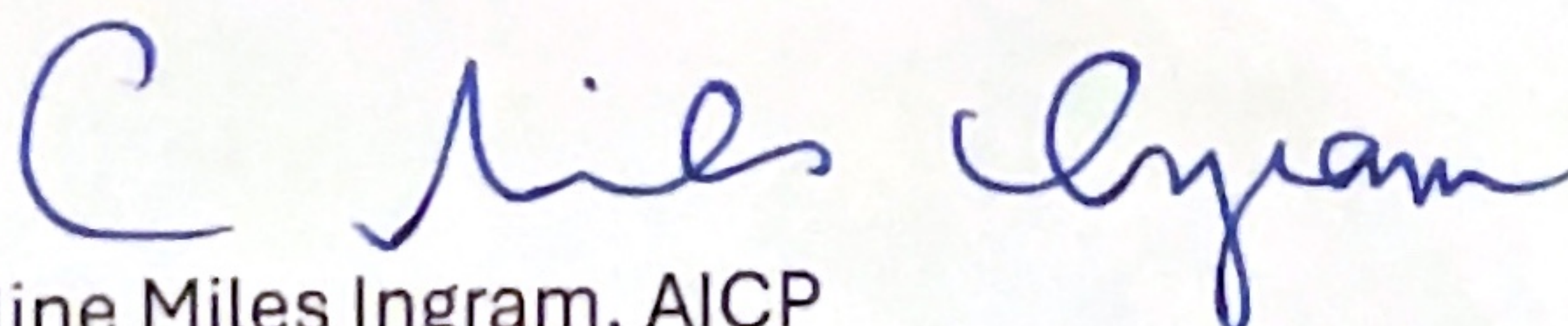
I will be unable to attend the Planning Commission meeting this month due to work obligations, but I would like to provide public comment regarding the sidewalk bank fee-in-lieu program and associated Land Development Code amendments.

While I generally support the *concept* of the program, I do have some thoughts/concerns.

- 1) The sidewalk fees collected are to benefit "High-Priority Areas," which are defined in Section 1 of the proposed ordinance. In the frequently referenced "Pathways Master Plan," pedestrian priority corridors and zones are mapped in Figures 1 and 2 (pp. 45-46). The priority areas identified in the maps are *extensive*. While there is no current data on the amount of money the fund will generate, as the program progresses, **I believe that there should be standards to ensure the funds are being utilized equitably across the city.** These standards should be data driven.
- 2) While I do not foresee this to be received as a controversial program, I also expect the novelty of it being abused in a way we do not anticipate. **I think that Council needs to review the ordinance at the end of the year and consider any adjustment to the language that may be needed.**
- 3) Given the breadth of impact of infrastructure on the public and age of the Pathways Plan, **it is fair to ask for more community input going forward when planning programs such as these.** Maybe the public wants funding dedicated solely to existing sidewalk repair? Or specifically for ADA compliance projects? Or allow the projects to be prioritized by the Engineering Department? (As is noted in Section 6 of the proposed ordinance.)
- 4) Finally, **I do not support a new sidewalk requirement in A-1 and A-2 zoning.** Given the larger lot sizes and the extremely limited types of uses permitted in these zones, agricultural zones are intended to retain rural character rather than incorporate more suburban design features. Given this amendment is being brought forth at the same time as the fee-in-lieu, it is problematic to suddenly require a sidewalk in zoning that was never intended to have sidewalks.

As always, I appreciate the Commission's commitment to the public.

Best,

A handwritten signature in blue ink, appearing to read "Caroline Miles Ingram".

Caroline Miles Ingram, AICP



Memorandum

To: Mayor Toby Barker and Members of City Council

From:

cc:

Date: Tuesday, March 18, 2025

Re: Accept the Planning Commission's recommendation and adopt an Ordinance rezoning property from R-1B to R-3 made by Meoucia Breland, Property Owner/Applicant, located at 217 Oliver Avenue (PPIN 23552, Ward 2, Forrest County).
File Number: 2025-213
Minute Book #

Summary

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.



**URBAN
DEVELOPMENT
PLANNING DIVISION**

**Planning Commission
Case Fact Sheet**

Names of Petitioner: Meoucia Breland, Property Owner/Applicant

Address of Property:
217 Oliver Avenue

Tax Parcels
2-029E-04-024.00

PPIN:
23552

Ward:
2

Request: Rezoning

Purpose of Request: Meoucia Breland, Property Owner/Applicant, requests a zoning change from R-1B to R-3 for a property located at 217 Oliver Avenue (PPIN 23552, Ward 2, Forrest County).

History / Background: The applicant met with staff in a pre-application meeting in early 2025 to establish the existing structure at 217 Oliver Avenue as a four-plex dwelling. The applicant explained that the existing house had been previously converted into four separate units before she purchased the property. Staff explained that because the property has been vacant for more than six (6) months, the non-conforming use cannot be reestablished and would have to be rezoned to R-3, a multi-family zoning district to use the property as a four-plex. The property is currently zoned R-1B, which is a single-family zoning district and does not allow for multi-family dwellings.

Applicant Summary: * See Attached *

Applicable Regulations:

SECTION 2

Applicability

2.4.4 Nonconforming Uses.

A legal nonconforming use is a use existing legally at the time of the passage of this Code, or the time of annexation into the City's jurisdiction, which does not by reason of use conform to the regulations of the district in which it is located. A use established after the passage of this Code which does not conform to regulations of the district in which it is located shall be considered an illegal nonconforming use and is a violation of this Code. Legal nonconforming uses of land or structures may continue only in accordance with all of the following provisions.

2.4.4.4 Reestablishment Restricted.

A legal nonconforming use, when discontinued or abandoned, shall not be resumed. Discontinuance or abandonment shall be defined as:

- i. When land used for a legal nonconforming use ceases to be used in a bona fide manner or a period of six consecutive calendar months.
- ii. When a building designed or arranged for a nonconforming use ceases to be used in a bona fide manner as a legal nonconforming use for a continuous period of six consecutive calendar months.
- iii. When a building designed or arranged for a conforming use shall cease to be used in a bona fide manner as a legal nonconforming use for a period of six consecutive calendar months.

SECTION 4

Zoning Districts Established

4.5.4 R-1B Single-Family Residential: The purpose of the R-1B District is to permit single-family residential uses with related recreational, religious and educational facilities. This district is consistent with the Neighborhood Conservation 1 and 2 districts in the Comprehensive Plan. This zoning district encourages protected lower density residential neighborhoods with only compatible supporting institutional uses and open space.

4.5.7 R-3 Multi-Family Residential District: The purpose of the R-3 District is to permit medium and high density residential uses including multi-family, two-family, and single-family

March 2025 HPC Item: B
Meoucia Breland, Property Owner/Applicant
Request for: **Rezoning**

structures with related recreational, religious and educational facilities. This district is consistent with the Neighborhood Conservation 1 and 2 districts in the Comprehensive Plan. This zoning district encourages protected residential neighborhoods with only compatible supporting institutional uses and open space.

Present Zoning: The property is currently zoned R-1B Single-Family Residential.

Present Use: Vacant dwelling

Future Land Use: Neighborhood Business Corridor / Neighborhood Conservation District 1

Surrounding Zoning and Land Use:
North: R-1B Single-Family Residential
South: R-1B Single-Family Residential
East: R-1B Single-Family Residential
West: R-1B Single-Family Residential

Letters or Concerns stated: As of finalizing this report, the Planning Division Office had received no calls or letters of concern.

Option: Recommend **Approval** or **Denial** of a zoning change from R-1B to R-3 for a property located at 217 Oliver Avenue (PPIN 23552, Ward 2, Forrest County).

Basis for approval (Zoning Change):
I. There was a mistake in the original zoning
II. The character of the neighborhood has changed substantially so that rezoning is clearly justified and there is a public need for the rezoning
III. Annexation

SUBJECT PARCEL

217 Oliver Avenue — Rezone Request

Meoucia Breland, Property Owner/Applicant, requests a zoning change from R-1B to R-3 for a property located at 217 Oliver Avenue (PPIN 23552, Ward 2, Forrest County).





Zoning Map

- 217 Oliver Ave R-1C
- R-1A R-2
- R-1B R-3

Rezoning Request from R-1B to R-3
217 Oliver Avenue
PPIN: 23552
Flood Zone: X
Ward 2, Forrest County

DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data.
This information CANNOT be used as a substitute for legal, business, tax or other professional advice.
Map Exported on: 1/29/2025 3:43 PM

0500

Feet

N

**URBAN
DEVELOPMENT**
PLANNING DIVISION

Center: 89°18'50"W 31°19'58"N



- Future Land Use Map**
- 217 Oliver Ave
 - Neighborhood Business
 - Neighborhood Conservation District 1

Rezoning Request from R-1B to R-3
217 Oliver Avenue
PPIN: 23552
Flood Zone: X
Ward 2, Forrest County

DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data.
This information CANNOT be used as a substitute for legal, business, tax or other professional advice.
Map Exported on: 1/29/2025 3:41 PM



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Feet



URBAN DEVELOPMENT
PLANNING DIVISION

Center: 89°18'50"W 31°19'57"N

Site Aerial



Surrounding Area





URBAN DEVELOPMENT PLANNING DIVISION

Public Hearing Application

P.O. BOX 1898 (200 Forrest Street/39401)

Hattiesburg, MS 39403-1898

Department of Urban Development

(601) 545-4599 or FAX (601) 545-1962

APPLICANT:

Applicant Name: Meoucia Breland

Project Name: _____

Proposed Use(s): _____

Project Street Address: 217 Oliver Ave Hattiesburg Ms 39401

PPIN Number(s) (if unknown, can be found on tax receipt): _____

PLEASE BE SURE TO FILL OUT PP. 1-5 AND SEE FEES ON P. 6

Application for (check all appropriate types):

- | | |
|---|---|
| ☐ Variance (see below) | ☐ Conditional Use (see below) |
| ☐ Subdividing of Lot, Parcel, or Tract (see p. 12) | ☒ Re-Zoning (see below) |
| ☐ Street or Alley Renaming (see pp. 13-14) | ☐ Overlay District |
| ☐ Vacating Street or Alley (see pp. 13-14) | ☐ Planned Mixed-Use District |

For Variance Only (check all appropriate variance types), see pp. 7 & 8:

- | | | |
|---------------------------------------|---|---|
| ☐ Sign | ☐ Setback (front, side, or rear _____) | ☐ Off-Site Parking |
| ☐ Lot Width | ☐ Lot Coverage Area | ☐ Buffer |
| ☐ Other: _____ | ☐ Open Space | |

For Conditional Use Permit Only (check applicable type), see pp. 9 & 10:

- | | |
|---|---|
| ☐ Automotive Filling Station | ☐ Telecommunications |
| ☐ Digital Billboard, New | ☐ Digital Billboard, Replacement |
| ☐ Restaurant | ☐ Solar Farm |
| ☐ Other: _____ | |

For Re-Zoning Only, see p. 11:

Existing Zoning: R1B

Proposed Zoning: R3

STAFF USE ONLY – Do Not Complete:

Pre-Application Date: 1-23-25 Planner: _____

Parcel Number(s): 23552 Historic District(s): N/A

Flood Zone(s): X Zoning District(s): @ R-1B

Project No.: PRE-0125-0889

Code Sections:

LDC Section No. _____

Section No. _____

Section No. _____

Section No. _____

Section No. _____

RECEIVED DATE & INITIALS:

RECEIVED
JAN 24 2025

BY: MM

OWNER AFFIDAVIT PAGE

THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE OWNER(S) OF THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the OWNER(s) of the subject property located at
217 Oliver Ave Hattiesburg MS
Street Address City State
on this the 24 day of Jan, 2025

In the matter of this request, the property owner further authorizes the following named person(s) to represent them at the public hearing on this petition.

None
on this the _____ day of _____, 20____.

Meoucia Breland
Property Owner (print)

Meoucia Breland
Property Owner (signature)

STATE OF Mississippi
COUNTY OF Forrest

Personally came and appeared before me, the within named Meoucia Breland
Meoucia Breland
who signed and delivered the above and foregoing instrument as and for their free act and deed on the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 24th day of January, 2025.

[Signature]
NOTARY PUBLIC

My Commission Expires:

9/13/2027



APPLICANT AFFIDAVIT PAGE

THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE **APPLICANT** OF THIS PETITION, **ONLY** IF DIFFERENT FROM THE OWNER(S) OF THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the **APPLICANT(s)** of the subject property located at _____,

Street Address _____ City _____ State _____

on this the _____ day of _____, 20____.

Applicant (print)

Applicant (signature)

STATE OF _____

COUNTY OF _____

Personally came and appeared before me, the within named _____,

who signed and delivered the above and foregoing instrument as and for their free act and deed on the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the _____ day of _____, 20____.

NOTARY PUBLIC

My Commission Expires:





FOR RE-ZONING APPLICANTS:

As stated in Section 12.3 in the Land Development Code, one of the following conditions must be met before a rezoning can be recommended. Check the condition(s) most applicable to your request and explain in writing.

- ☐ There was a mistake in the original zoning.
- ☐ The character of the neighborhood has changed substantially so that rezoning is clearly justified and there is a public need for the rezoning.
- ☐ Annexation.

Detailed explanation of condition(s) most applicable to your request:

Already have a an exist for
a 4 plex it already has 4 kitchens
4 bathrooms and four livingrooms
IM just trying to get it rezoned
to get it up in turning for a
4 plex so that I can have
an affordable place for USM
students can have a place to rent



DEED

Bk:1426 Page:173-176

RCD: 07/24/2023 @ 2:33:48:PM

FORREST COUNTY, MS

LANCE C. REID CHANCERY CLERK

PREPARED BY/RETURN TO:

The Moreno Law Group, PLLC
5267 Old Hwy 11, Suite B
Hattiesburg, MS 39404
(601) 203-0911

Indexing Instructions: The property described in this instrument is situated on the South 112.0 Feet of Lots 1 and 2, Block 7 R. E. RAWLS FIRST SURVEY, Hattiesburg, Forrest County, Mississippi Please Index Accordingly.

STATE OF MISSISSIPPI

COUNTY OF FORREST

WARRANTY DEED

FOR AND IN CONSIDERATION of the sum of Ten Dollars (\$10.00), cash in hand paid, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, We, the undersigned

J. ALVIN INVESTMENTS, LLC and GRIFFIN ESTATES, LLC

217 Oliver Avenue
Hattiesburg, MS 39401
(662) 394 - 9545

do hereby sell, convey, bargain and warrant to

MAJESTIC REALTY, LLC

15 J.B. Horne Road
Hattiesburg, MS 39401
(601) 310 - 4865

the following described real property located in **FORREST** County, Mississippi; together with any and all improvements thereon and appurtenances thereunto belonging, said lands being more particularly described as follows:

Subject to any Covenants, Restrictions and Easements affecting the subject property which may be of record in the office of the Chancery Clerk of FORREST County.

Subject to any Covenants, Restrictions and Easements affecting the subject property which may be of record in the office of the Chancery Clerk of FORREST County.

Subject to prior reservations of oil, gas and other minerals by former owners.

The County and State ad valorem taxes for the year 2023 shall be pro-rated between the parties from January 1, 2023, to the date of the execution of this conveyance. It is specifically agreed and understood that taxes for the current year are pro-rated based upon the previous year's taxes. The Grantee hereby takes full responsibility of paying the taxes for the year 2023 when same become due and payable.

WITNESS MY signature on this the 23rd day of June, 2023.



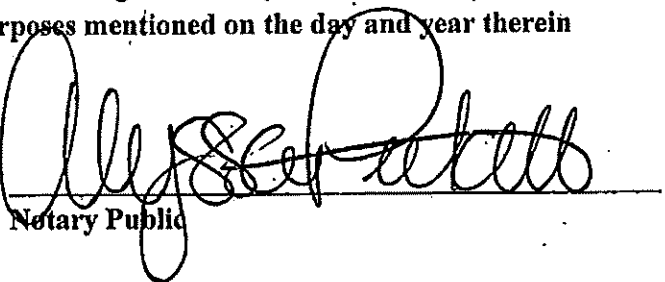
J. ALVIN INVESTMENTS, LLC
J. ALVIN WATSON, as Manager, AS
GRANTOR



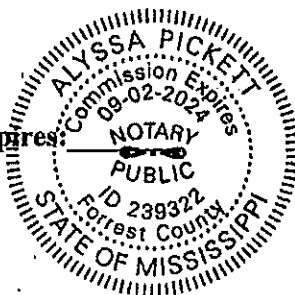
GRIFFIN ESTATE, LLC
JAMAL GRIFFIN, as Manager, AS CO-
GRANTOR

STATE OF MS
COUNTY OF LAMAR

PERSONALLY appeared before me the undersigned authority in and for the said county and state on the 23rd day of June, 2023, within my jurisdiction, the within named J. ALVIN WATSON, as Manager, who acknowledged that they executed the above and foregoing General Warranty Deed for the purposes mentioned on the day and year therein mentioned.

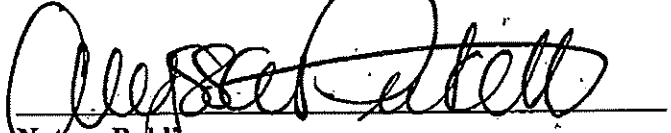

Notary Public

My Commission Expires:



STATE OF MS
COUNTY OF LAMAR

PERSONALLY appeared before me the undersigned authority in and for the said county and state on the 23rd day of June, 2023, within my jurisdiction, the within named JAMAL GRIFFIN, as Manager, who acknowledged that they executed the above and foregoing General Warranty Deed for the purposes mentioned on the day and year therein mentioned.



Notary Public

My Commission Expires

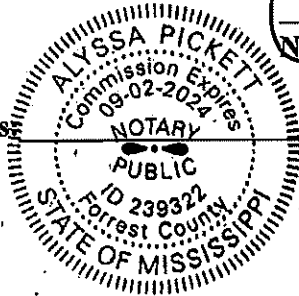


EXHIBIT 'A'
LEGAL DESCRIPTION

The South 112.0 Feet of Lots 1 and 2, Block 7 R. E. RAWLS FIRST SURVEY, Hattiesburg, Forrest County, Mississippi, as per the map or plat thereof on file in the office of the Chancery Clerk at the Courthouse in Hattiesburg Mississippi, Forrest County, Mississippi.

Subject to prior reservation of oil, gas and other minerals in, on and under the subject property,
Together with all improvements situated thereon and appurtenances thereunto belonging.

FORREST COUNTY MS LANCE C. REID
I CERTIFY THIS INSTRUMENT WAS FILED ON 7/24/2023 2:33:48 PM AND RECORDED IN DEED BOOK 1426 PAGE 173

Prepared by: City of Hattiesburg
City Clerk's Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601)545-4550

Return to: City of Hattiesburg
City Clerk's Office
P.O. Box 1898
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INDEXING INSTRUCTIONS:

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

**AN ORDINANCE CHANGING AND AMENDING THE
COMPREHENSIVE ZONING DISTRICT MAP, ADOPTED AS PART OF THE
LAND DEVELOPMENT CODE ORDINANCE NO. 3209, AS AMENDED,
OF THE CITY OF HATTIESBURG, MISSISSIPPI FOR A CERTAIN PROPERTY
LOCATED AT 217 OLIVER AVENUE (PARCEL NO. 2-029E-04-024.00, PPIN 23552,
WARD 2, FORREST COUNTY) FROM SECTION 4.5.4 R-1B (SINGLE-FAMILY
RESIDENTIAL) DISTRICT TO SECTION 4.5.7, R-3 (MULTI-FAMILY RESIDENTIAL)
DISTRICT.**

BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HATTIESBURG,
MISSISSIPPI:

SECTION 1. That the Comprehensive Zoning District Map, adopted as part of the Comprehensive Zoning Ordinance No. 3209, as amended, of the City of Hattiesburg, Mississippi, be and the same is hereby changed and amended for the property located at 217 Oliver Avenue in Forrest County, Mississippi (Parcel No. 2-029E-04-024.00; PPIN 23552 of Ward 2).

Legal Description of the Property:

The South 112.0 Feet of Lots 1 and 2, Block 7 R.E.
RAWLS FIRST SURVEY, Hattiesburg, Forrest, County,
Mississippi as per the map or plat thereof on file in the
office of the Chancery Clerk at the Courthouse in
Hattiesburg, Mississippi, Forrest County, Mississippi.
Subject to prior reservation of oil, gas and other minerals
in, on and under the subject property, Together with all
improvements situated thereon and appurtenance thereunto
belonging.

The Hattiesburg Planning Commission recommended approving the change in zoning from **R-1B**

to **R-3** of the above-referenced property for the following reasons: The character of the neighborhood has changed substantially so rezoning is clearly justified and there is a public need for the rezoning.

SECTION 2. Except as hereby expressly changed and amended, the aforesaid Comprehensive Zoning District Map and the Land Development Code Ordinance No. 3209, as amended, of said City of Hattiesburg, Mississippi, shall be and remain in full force and form as adopted.

SECTION 3. That this Ordinance take effect and be in force thirty (30) days from and after passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by Council member _____ seconded by Council member _____ and was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above and foregoing Ordinance having been submitted to and approved by the Mayor, this the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Cory Long, Planning Administrator, Wiley Quinn, Urban Development Director
cc: Ann Jones, Chief Administrative Officer
Date: Tuesday, March 18, 2025
Re: Adopt an Ordinance amending Chapter 32 of the Code of Ordinances to establish a Short-Term Rental Ordinance.
File Number: 2025-225
Minute Book #

Summary

The Planning Commission recommended approval on March 5th, 2025 of the exhibits presented by staff after multiple work sessions. Land Development Code amendments were also recommended for approval by the Planning Commission in conjunction with the Short-Term Rental Ordinance.

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.

ORDINANCE NUMBER _____
OF THE
CITY OF HATTIESBURG, MISSISSIPPI

**AN ORDINANCE AMENDING CODE OF ORDINANCES OF HATTIESBURG,
MISSISSIPPI,
TO PROVIDE FOR SHORT-TERM RENTALS OF DWELLINGS, APPLICATION, AND
APPROVAL**

WHEREAS, it has been brought to the attention of the City that residential property within the City is being used in short-term rentals and the potential issues and problems affiliated with such use must be addressed;

WHEREAS, The City has a legitimate interest in preserving its long-term housing stock and not have such limited resources depleted as there is an influx of individuals and families associated with the military, government contractors and the gaming industry seeking residential opportunities in Hattiesburg; *and*

WHEREAS, the use of short-term rental units as a use in residential zones is considered a valuable and needed use for those desiring to engage their dwelling or condominiums to rent to guests visiting Hattiesburg in exchange for compensation and further provides for another type of short-term stay opportunity similar to hotels, motels and bed and breakfast facilities and will aid and encourage tourism as well as, promote the local economy; *and*

WHEREAS, by requiring conditional use permits for the short-term rental of residential property the City of Hattiesburg will be able to balance the desire of owners to make such use of their property with those owners who desire peace and tranquility in their neighborhoods;

WHEREAS, by requiring conditional use permits for the short rental of residential property, the City of Hattiesburg will be able to investigate applications to assure compliance with the provisions set forth herein, as well as all local, State and Federal laws and will be able to address any adverse impact of short-term rentals; *and*

WHEREAS, it is the intent of the City of Hattiesburg to review the Ordinance annually in order that the City may address any adverse impact of the allowed use of property as short-term rentals; *and*

WHEREAS, The Planning Commission and City Council having held work sessions and having published due notice conduct a public hearing on such proposed changes at which time public testimony was taken and considered; *and*

WHEREAS, after due consideration the Mayor and City Council now find and determine that it would be in the best interest of the City of Hattiesburg that the recommended changes be adopted;

**BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HATTIESBURG,
MISSISSIPPI:**

Amend the Code of ordinances of the City of Hattiesburg, to create Chapter 32 Article X

Section 32-222

1) DEFINITION:

The following words, terms, and phrases, when used in this article shall have the

meanings ascribed to them in this section:

Short-term Rental: means any dwelling or condominium or portion thereof that is available for use or is used for accommodations or lodging of guests, paying a fee or compensation for a period of less than thirty (30) consecutive days. The term does not include any hospital, convalescent or nursing home, shell houses, group homes, sanitarium, or any facility associated with a hospital providing rooms for medical patients and their families. The term shall also not include mobile homes, manufactured homes, group homes, travel trailers, tents, recreational vehicles, campers, or other similar vehicles or structures nor does the term include a bed and breakfast permitted by City ordinances.

Local Property Manager. The person specifically named on the application and permit who is responsible for the day-to-day operation of the short-term rental unit, and who may be contacted and available twenty-four (24) hours a day if there is a problem with the unit. The local property manager may be the owner or agent of the owner and shall reside within Forrest or Lamar County. The local property manager and owner shall be responsible for the management and upkeep of the rental unit in compliance with the provisions set forth herein. The name, address, and telephone number of the owner and the local property manager shall be submitted at the time that the application is filed and said information shall be made available to the public. The owner shall be responsible for providing written notice of any change with respect to the name, address, and telephone number of the local property manager to the City within five (5) days of any such change.

2) **PERMIT REQUIRED**

- A. A Privilege Tax License, Certificate of Zoning Compliance, and Occupancy Limit are required for each short-term lodging rental unit.
- B. The permit process requires an application completed in accordance with the following which may be obtained at the City Tax Department.
 - a. Application shall contain such information as the City Clerk shall from time to time require, including, but not limited to, the location/address of the short-term rental, the number of rooms therein contained, the number of persons the short-term rental proposes to accommodate, the name of the property owner, the name of the local property manager, sales tax collection, and the name, address and telephone number of the local contact person who is available for contact, copy of the rental agreement, proposed parking plan (*reviewed and determined upon signing and inspection by The Planning Division*) rules, and a plan for trash management, and a copy of the proposed rental agreement.
 - b. It shall be the duty of the applicant to produce proof to the City Tax Department of homeowner's liability insurance coverage which does not exclude short-term rentals from coverage. Further, the applicant shall provide proof that the insurer has been notified of the insured's intent to use the property as a short-term rental.
 - c. It shall be the duty of the applicant to produce proof of any mortgage or deed of trust which may encumber the property and submit proof that the mortgage or deed of trust does not prohibit the use of the property as a short-term rental.
 - d. The application shall include a statement from the applicant affirming that the applicant is in compliance with all applicable zoning requirements, building codes, deed restrictions and/or covenants, and has paid all applicable taxes, fees and other charges including lodging taxes.
 - e. The applicant shall execute a written statement acknowledging that a violation of the ordinances of the City of Hattiesburg may result in the suspension or revocation

of the permit.

- f. A non-refundable application fee of twenty-five dollars (\$25.00) shall be paid by the applicant at the time of filing the application. A licensing fee of one hundred thirty dollars (\$130.00) will be assessed for any approved licenses. The most recent fee established by the City Council shall take precedence. Total applicable fees include:
 - \$50 Fire inspection
 - \$25 Certificate of Zoning Compliance (CZC)
 - \$20 Privilege Tax License for a Home Occupation
 - \$130 Short-Term Rental License Fee
 - \$25 Short-Term Rental Application Fee
- C. The short-term rental unit is in accordance with all applicable fire and health codes as would apply.
- D. Each short-term rental permit shall expire one (1) year from the date of issuance of the permit.
- E. Permit renewal may be obtained for one hundred dollars \$100.00 through the City Tax Department, other applicable fees will be required at this time and include but are not limited to a Fire Inspection fee and Privilege Tax License.
 - a. Total Renewal Fees:
 - \$50 Fire inspection
 - \$20 Privilege Tax License for a Home Occupation
 - \$100 Short-Term Rental License Fee
 - b. The permit renewal process will include staff review of City records and other documentation pertaining to complaints, if any, that have been received about the specific short-term rental unit under consideration. Filed complaints that are in violation of the zoning codes, building codes, property maintenance, codes and/or applicable laws or regulations will be considered as part of the renewal process. Applicable local, State and Federal laws or regulations may be a basis for denying a permit renewal. If permit renewal is denied, the City Urban Development Division shall provide notice as to the reason for denial and the landowner shall be allowed ten (10) days to correct any deficiencies itemized. At the expiration of ten (10) days, a landowner may appeal the denial of permit renewal to the City Council. The appeal must be in writing and must be filed within ten (10) days following the expiration of the ten (10) day period within which to file correct deficiencies.
- F. Approval of a short-term lodging permit does not legalize any non-permitted use or structure. Short-term rental units are not to be used to distribute retail products or personal services to invitees for marketing or similar purposes. The outdoor display of goods and merchandise for sale is prohibited.
- G. Short-term lodging rental permits are not transferable. Upon sale or any type of transfer of the property, any permit issued pursuant to the terms set forth herein, shall automatically expire. Any new owner(s) or transferee(s) shall be required to apply for a new permit in accordance with this article.
- H. Any structure or unit that is deed-restricted for affordable housing shall not be used as a short-term lodging rental.
- I. Permit capacity will be the total number of permits issued for residential short-term rental shall not exceed two and a half percent (2.5%) of the total number of residential structures in the city at any given time. This number will be tabulated from existing residential water

meters at the start of each fiscal year.

- a. The City Tax Department will maintain a waiting list for any applicant over the permit capacity. The waiting list time will be 365 days. The city offers no guarantee that being on the wait list will make the applicant approvable in the other provisions of this ordinance. A complete application with the twenty-five dollar (\$25.00) fee is required to be placed on the waiting list.
- b. The waiting list will be used to evaluate the need to adjust capacity.

3) OCCUPANCY

The maximum occupancy of each short-term rental shall be as determined by the Building Official and/or Fire Marshall based on the inspection of the premises and applicable laws, regulations and codes. Each permit shall specify the maximum number of occupants, which may be limited due to building or parking constraints. Inspections shall focus on these items:

- A. Maximum occupancy is two (2) persons per sleeping room, plus an additional four (4) per dwelling. For residential properties with more than 3,250 square feet of conditioned living space, the maximum occupancy shall be two (2) persons per sleeping room plus an additional six (6). This section shall apply if in conflict with any other code or occupancy regulation adopted by the City. The maximum occupancy of a short-term rental shall be determined at the time a short-term rental permit is issued or renewed. That capacity shall not be increased by subsequent construction of any addition to the structure covered by the permit or by construction of any other structure located on the property without an inspection and approval by building official and submission of an amended registration form;
- B. Inspections shall primarily focus on these items:
 - a. Smoke detectors
 - b. Carbon Monoxide detectors (if applicable)
 - c. Fire extinguishers located appropriately throughout the building
 - d. Windows that do not have plexiglass
 - e. No bars on windows or doors
 - f. Safety of utility connections and outlets including electrical, water, sewer, gas, etc.

4) NUMBER OF VEHICLES

The maximum number of vehicles will be determined upon site inspection by the Building Department and should be compatible with the zoning. This number will be based on off-street parking availability and on-street conditions. It will be preferred that the applicant/owner provide off-street parking. In certain circumstances where no off-street parking exists and on-street constraints exist, the Building Official may require that an off-street parking space be constructed or secured. A fixed amount may be set by the Planning Commission.

5) REGISTRY OF GUESTS

Each person granted a short-term rental permit shall keep or cause to be kept a registry of guests. Such registration or list shall be available for inspection upon ten (10) days written notice by the Building Official or his designee.

6) NOISE

Property owners and local property managers shall ensure that the occupants of the short-term lodging rental are aware of City noise ordinances and State laws regarding disturbing the peace.

7) PREMISES AND GARBAGE MANAGEMENT

It shall be the duty of every local property manager and/or owner to keep all of the rooms in connection with the short-term rental provided for the use of guests, in clean and sanitary condition; and to provide each guest with affective protection against flies, mosquitoes and other vermin. Garbage shall be disposed of in covered containers and placed in the scheduled pick-up location.

8) POSTING OF RULES

Short-term lodging rental unit rules shall be posted inside the rental unit in a location readily visible to all tenants. The rules shall include: occupancy; parking limits; noise, rules and garbage management. A written copy of this Ordinance shall be posted within the unit and displayed at all times.

9) LOCAL CONTACT PERSON

All short-term lodging rentals shall designate a local property manager who will respond to the questions or concerns twenty-four (24) hours a day. The name, address, and telephone number of the local contact person shall be submitted to the Code Enforcement, Tax Department, and City Police Department during the permitting process. The name, address, and telephone number of the local contact person shall be posted permanently inside the short-term rental unit. The local contact person, property manager, and/or property owner shall be considered the responsible person for violations of the Short-term Rental Ordinance.

10) COMPLAINTS AND DISPUTE RESOLUTIONS

Complaints regarding violation of this Ordinance must first be directed to the local contact person. If the local contact person is unable to resolve the issue and/or the issue relates to public safety, then the concerned party should contact the Code Enforcement Division. The Hattiesburg Police Department shall have an updated list provided by the City Clerk of all local contact persons for short-term rentals in case complaints are received after hours. Verified complaints concerning non-compliance with the terms of this Ordinance may be considered in determining whether or not a permit should be revoked.

11) DENIAL OR REVOCATION OF A LICENSE

Conditions for denial of permit or revocation of permit to operate a Short-term Rental unit shall include but in no way limited to the following:

- A. Property within a subdivision with an active homeowner's association with adopted covenants that do not allow short-term rentals will not be considered for a permit. A letter of acknowledgment and support will be required from the Homeowner's Association in order to continue in the pursuit of a permit. Failure of the applicant to notify the City that his/her property is a part of a Homeowner's Association shall result in denial of a permit or revocation of a permit.
- B. The applicant failed to conform to the conditions set forth herein for the current or previous year.
- C. Guests and/or users of the property were issued noise ordinance and/or disturbing the peace citations during the previous or current year.
- D. Any other reasonable or rational factors or combination of factors, including, but not limited to inadequate lot size, inadequate street parking, lack of response from local property manager or contact person, filed complaints of violation of the zoning code, building code, property maintenance code and/or applicable laws or regulations (may be a

basis for denying permit).

- E. The Director of Urban Development in conjunction with the City Clerk are authorized to revoke permits. A permitted owner shall be provided with written notice of the reason(s) the permit is subject to revocation. The applicant shall be allowed ten (10) days from the date written notice is issued to correct defective conditions. If the condition is not corrected within ten (10) days to the satisfaction of the Building Official, permit will be revoked by issuing such and order. Upon receipt of such order by the owner or local property manager, the unit shall cease operation as a short-term rental. The owner may appeal the order revoking the permit. The owner's appeal must be in writing and filed with the Building Department within ten (10) days of entry of the order. The revocation shall remain in full force and effect during the pendency of the appeal. The appeal should be presented to the Mayor and City Council at the next scheduled meeting following the filing of the appeal. The owner should be afforded notice and the opportunity to be heard. The City may appoint a hearing officer to preside over any such appeal.

12) **VIOLATIONS:**

Any persons or users who allow such use of a residential property in violation of this Ordinance shall be guilty of a misdemeanor.

For purposes of prosecution of violations of this chapter, each day that any violation occurs (*rental without a permit*) is deemed to constitute a separate violation. Those found guilty of such violation shall, upon conviction, be fined for each violation not exceeding \$250.00 for the first offense, not exceeding \$500.00 for the second offense within a calendar year and not exceeding more than \$1,000.00 for other offenses within a calendar year, plus all court costs.

13) **CONSTITUTIONALITY**

Should any portion, provision or section of this Ordinance be held void, unconstitutional or invalid, the remaining portion of the ordinance shall remain in full force and effect.

14) **CONFLICTS**

It is hereby provided that the provisions of these regulations shall not be construed as being in conflict with the provisions of any of the regulations of Hattiesburg, Mississippi. In any case where the provisions in these regulations and the provisions of other regulations both apply, the provisions of this Ordinance shall govern for the purpose of short-term rentals of residential dwellings or condominiums.

Short-Term Rentals shall be reviewed under the International Residential Code of the currently adopted building code year.

15) **REVIEW**

The City shall review the Ordinance annually to evaluate the benefits recognized by the use of Short-term Rentals and any adverse impact the use of Short-term Rentals may have.

SECTION 2. That this Ordinance take effect and be in force thirty (30) days from and after passage as provided by law.

The foregoing Ordinance having been reduced to writing, the same was introduced by

Councilmember _____, seconded by Councilmember _____, and
was adopted by the following vote to-wit:

YEAS:

NAYS:

THE President thereby declared the motion carried and the foregoing Ordinance adopted and
approved, this the _____ day of _____ A.D., 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

THE above foregoing Ordinance having been submitted to and approved by the Mayor, this
the _____ day of _____ A.D., 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Cory Long, Planning Administrator
cc:
Date: Tuesday, March 18, 2025
Re: Adopt an Ordinance amending Ordinance Number 3368 adopted on February 4, 2025, the Vacant & Abandoned Structure Registration, to amend registration fees of said Ordinance.
File Number: 2025-228
Minute Book #

Summary

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.

There came on for consideration at a duly constituted meeting of the Mayor and Members of the City Council of the City of Hattiesburg, Mississippi, held on the 4th day of **February 2025**, the following Ordinance:

ORDINANCE NO. _____

**AN ORDINANCE OF THE MAYOR AND CITY COUNCIL OF THE CITY OF
HATTIESBURG TO ENACT A VACANT AND ABANDONED STRUCTURE
REGISTRATION IN THE CENTRAL BUSINESS DISTRICT, HISTORIC DISTRICTS
AND DESIGNATED HISTORIC LANDMARKS**

WHEREAS, vacant, abandoned, and dilapidated properties pose a significant risk to public safety by attracting criminal activity, including trespassing, vandalism, and illegal drug use, which undermines the quality of life for residents and disrupts community stability;

WHEREAS, the accumulation of vacant and deteriorating structures contributes to a negative perception of neighborhoods, discourages investment, and hinders economic development, including the ability to attract new businesses and residents;

WHEREAS, vacant and abandoned buildings are often poorly maintained, leading to structural hazards such as collapsing roofs, broken windows, unsanitary conditions, and the accumulation of hazardous materials, all of which can contribute to public health concerns;

WHEREAS, the maintenance, rehabilitation, and repurposing of vacant or abandoned properties are essential to the long-term revitalization and sustainability of neighborhoods, contributing to increased property values, enhanced safety, and improved community well-being;

WHEREAS, the City of Hattiesburg recognizes that addressing vacant and abandoned structures requires a comprehensive approach, including clear regulations, accountability for property owners, and effective enforcement mechanisms to encourage compliance and foster community improvement;

WHEREAS, the City of Hattiesburg seeks to provide property owners with the necessary tools and incentives to rehabilitate vacant and abandoned properties, while also implementing measures to ensure public health and safety are protected in the interim;

WHEREAS, it is in the best interest of the City to adopt and enforce policies that promote property maintenance and discourage neglect, in order to reduce the adverse impacts of vacant, abandoned, and dilapidated properties on the environment and the well-being of the citizens;

**BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF
HATTIESBURG, MISSISSIPPI:**

VACANT BUILDINGS ARTICLE I. - VACANT STRUCTURES IN THE CENTRAL BUSINESS DISTRICT, HISTORIC DISTRICTS, VACANT DESIGNATED HISTORIC LANDMARKS

Definitions. The following words, terms, and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

- (1) “Central business district” is located as noted on maps which will be made available by the Director, and as previously defined in this Code as: [Hub City National Register District]
- (2) “Historic district” means an area designated as such through approved means by city council, state or federal authority, and as previously defined and adopted in this Code.
“Historic landmark” means an individual structure or property which has been designated as such through approved means by city council, state or federal authority, and as previously defined and adopted in this Code.
- (3) “Director” refers to the director of the Department of Urban Development.
- (4) “Secured” means that all accessible means of ingress and egress to the vacant structure, including but not limited to all exterior doorways and windows are locked so as to prevent unauthorized entry by vagrants and criminals
- (5) “Temporarily secured” means that all accessible means of ingress and egress to the vacant structure, including but not limited to all exterior doorways and windows are covered with plywood which has been secured in place so as to prevent unauthorized entry by vagrants and criminals.
- (6) “Structure” means that which is built or constructed.
- (7) “Vacant structure” means 1) for single-family residential structures, a structure that is not currently contracted for utility services including water and electricity or 2) for all other structures, a structure which has not had a current Privilege Tax License (as applicable), water, and electricity associated with it for a period of sixty (60) days.
- (8) “Fair Market Value” is determined by a current or recent appraisal or a written valuation by a licensed real estate broker along with a detailed written estimate, by a certified licensed contractor, to bring the property up to code.
- (9) “Local Manager” The person specifically named on the application and permit who is responsible for the day-to-day operation of the structure, and who may be contacted and available twenty-four (24) hours a day if there is a problem with the structure. The local property manager may be the owner or agent of the owner and shall reside within Forrest or Lamar County. The local manager and owner shall be responsible for the management and upkeep of the structure in compliance with the provisions set forth herein. The name, address, and telephone number of the owner and the local manager shall be submitted at the

time that the application is filed and said information shall be made available to the public. The owner shall be responsible for providing written notice of any change with respect to the name, address, and telephone number of the local manager to the City.

VACANT BUILDINGS ARTICLE II.- APPLICABILITY AND ADMINISTRATION.

- (a) This article shall apply to all vacant structures, as defined herein, which are now in existence or which may hereafter be constructed or converted from other uses and which are located within the boundary the areas below with effective dates of each district
 - 1) April 1, 2025 - effective date for the Downtown Central Business District; vacant historic landmarks
 - 2) July 1, 2025 - effective date for the North Main Historic District
 - 3) October 1, 2025 - effective date for the Hattiesburg Historic Neighborhood
 - 4) January 1, 2026 - effective date for all other historic districts
- (b) The director is authorized to administer and enforce the provisions of this article.
- (c) The director shall have the authority to render interpretations of this title and to adopt policies and procedures in order to clarify the application of its provisions. The director, at his/her sole discretion, may also enter into an agreement with a registered property owner to obtain compliance with this article by a date certain.

Registration required.

- (a) The vacant structure property owner shall have forty-five (45) days in which to register from the date that written notice is issued to the property owner. Written notice shall be issued to the vacant structure property owner by means of personal service, or by first class mail to their last known address and by posting on the property. The Director shall consider evidence provided that the property is listed for sale or lease for fair market value and for a reasonable length of time for purposes of extending the length of time, to a maximum of 12 months, before the property must be registered.
- (b) Upon the issuance of notice to register vacant structure, property owners shall register with the Department and provide the following information:
 - (1) The address, PPIN and Parcel number, and/or legal description of the property;
 - (2) The current name, physical address, mailing address, telephone number, and email information for any owner(s) with an ownership interest in the property. Corporations or corporate entities shall submit the same information pertaining to their registered agent.

(3) The contact information for a local manager of the properties and/or improvements located on said property, as applicable.

(4) Proof of liability insurance, no less than one hundred thousand dollars (\$100,000.00), for the property and/or a surety bond which bond must be approved by the Director and the City Attorney or his designee for the value of structure if insurance cannot be obtained. Said value shall be the appraised value as determined by the Forrest County Tax Assessor.

(5) Complete the comprehensive plan of action form, provided by the department, detailing a timeline for correcting violations, rehabilitation, maintenance while vacant, and future use of the structure. The plan of action must be updated every six (6) months.

(6) A complete floor plan of the property for use by Code Enforcement and by first responders in the event of a fire or other catastrophic event.

(8) Vacant structure property owners shall provide written notice to the director, including a copy of the deed, of a change in: a. Ownership of the property; b. Contact information for either the owner, registered agent or the designated manager. Written notice must be provided to the department no later than 30 days after said changes have occurred.

(c) Continued annual registration of the property by the vacant structure property owner is required until said structure is deemed occupied and in compliance with all relevant code requirements by the director.

Registration fees.

(a) Vacant structure property owners shall tender an annual registration fee and an annual inspection fee. The initial registration fee shall be two hundred fifty dollars (\$250.00) for single-family residential structures or seven hundred fifty dollars (\$750.00) for all other structures. The annual inspection fee shall be one cent (\$0.01) per square foot, as determined by the Director or other data (survey, floor plan, etc.) verified by the Director, or fifty dollars (\$50.00) minimum, whichever is greater. Following the initial registration period and each year thereafter, the registration fee shall double.

Subsequent annual registration fees shall be due and postmarked no later than one (1) year from the date the previous vacant structure was identified and noticed.

(b) If the registration paperwork is submitted in its entirety within forty-five (45) days of the date the written notice was mailed, then the property owner may be entitled to a one hundred dollar (\$100.00) discount. However, failure to submit the registration paperwork in its entirety within the ninety (90) day time period may result in an additional one hundred fifty dollar (\$150.00) fee.

Property manager or agent.

(a) Vacant structure property owners must designate a local manager for said properties and include the relevant contact information for the designated manager upon registering the property with the department. Property managers shall act as agents for the property owner for purposes of accepting legal service, however the vacant property owner remains responsible for code violations.

(b) The property manager or agent must be available at the number listed at all times in the event of an emergency or catastrophe. For all vacant properties except for single-family residential structures: the name and telephone number of the property manager or agent must be posted at the front of the building, in large, legible print.

(c) The property manager or agent shall post "No Trespass" placards on the premises. Additional employment of security services for the property for a specified number of hours every day, may be required by the director on the basis of the property's history of code and/or criminal violations.

Standard of care for vacant property.

The standard of care, subject to approval by the director, shall include, but is not limited to:

(1) Protective treatment: All exterior surfaces, including but not limited to, roof, doors, door and window frames, cornices, porches, trim, balconies, decks and fences, shall be maintained as outlined in the International Property Maintenance Code (currently adopted edition), weather tight and in such condition so as to prevent the entry of rodents and other pests. All exposed wood or metal surfaces subject to rust or corrosion, other than decay resistant woods or surfaces designed for stabilization by oxidation shall be protected from the elements and against decay or rust by periodic application of weather coating materials such as paint or similar surface treatment. All surfaces with rust or corrosion shall be stabilized and coated to inhibit future rust and corrosion. Oxidation stains shall be removed from exterior surfaces. All siding, cladding and masonry joints, as well as those between the building envelope and the perimeter of windows, doors and skylights, shall be maintained weather resistant and water tight.

(2) Premises identification: The property shall have address numbers placed in a position to be plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of four inches (102mm) high with a minimum stroke width of one half inch (12.7mm). All buildings shall display a vacant building identification placard as required by the director.

(3) Structure: All structural members and foundation shall be maintained free from deterioration, and shall be capable of safely supporting the imposed loads.

- (4) Exterior walls: All exterior walls shall be kept in good condition and shall be free from holes, breaks, and loose or rotting materials. Exterior walls shall be maintained weatherproof and properly surface coated where necessary to prevent deterioration.
- (5) Roof and drainage: The roof and flashing shall be sound, tight and not have defects that admit rain. Roof drainage shall be adequate to prevent accumulation, dampness or deterioration. Roof drains, gutters and downspouts shall be maintained in good repair, free from obstructions and operational.
- (6) Decorative features: All cornices, belt courses, corbels, applications, wall facings and similar decorative features shall be maintained in good repair with proper anchorage and in a safe condition.
- (7) Overhang extensions and awnings: All overhang extensions including, but not limited to canopies, marquees, signs, awnings, and fire escapes shall be maintained in good repair and be properly anchored and supported as to be kept in a sound and safe condition.
- (8) Stairways, decks, porches and balconies: Every exterior stairway, deck, porch and balcony, and all appurtenances attached thereto, shall be maintained structurally sound, in good repair, with proper anchorage and capable of supporting the imposed loads.
- (9) Chimneys and towers: All chimneys, cooling towers, smoke stacks and similar appurtenances shall be maintained structurally safe and sound, and in good repair.
- (10) Handrails and guards: Every exterior handrail and guard shall be firmly fastened and capable of supporting normally imposed loads and shall be maintained in good condition.
- (11) Window, skylight and door: Every window, storefront, skylight and exterior door part, including but not limited to the frame, the trim, window screens and hardware shall be kept in sound condition and good repair. All broken or missing windows shall be replaced with glass and secured in a manner so as to prevent unauthorized entry. All broken or missing doors shall be replaced with new doors which shall be secured to prevent unauthorized entry. All glass shall be maintained in sound condition and good repair. All exterior doors, door assemblies and hardware shall be maintained in good condition and secured. Locks at all exterior doors, exterior attic access, windows, or exterior hatchways shall tightly secure the opening. Windows and doors shall not be secured by plywood or other similar means mounted on the exterior except as a temporary securing measure, and the same shall be removed within a period of time designated by the director.
- (12) Basement hatchways and windows: Every basement hatchway shall be maintained to prevent the entrance of rodents, rain and surface drainage water. Every basement window that is operable shall be supplied with rodent shields, storm windows or other approved protection against entry of rodents. (b) All repairs shall be subject to approval by the director. All required permits and final inspections prior to and/or following repairs shall be in accordance with applicable laws and rules.

(b) Historic properties and properties within designated historic districts are additionally subject to all applicable rules and regulations as otherwise codified.

Fee waivers.

All fee waivers must be applied for, using the forms provided by the director, on an annual basis, and are subject to approval by the director. A fee waiver is only valid for twelve (12) months.

(1) Property which has been devastated by a catastrophe such as fire or flood: The owner has thirty (30) days to register from the date of the disaster but may be exempt from the fees. This exemption is for the duration of one (1) year from the date of the catastrophe; thereafter all applicable fees are due.

(2) A property owner who is indigent must register and is otherwise subject to this article but may be exempt from the fees for the first year.

(3) Representatives of a property owner who is deceased or is no longer legally competent must register the property and are otherwise subject to this article but may be exempt from the registration fees. This exemption is for the duration of one (1) year from the date of the property owner becoming deceased or being judged no longer legally competent; thereafter all applicable fees are due.

(4) Where the owner of the property has obtained and maintains an active building permit, the owner shall not be subject to this article and is exempt from the registration fees while there is an active and valid building permit.

(5) Where the property owner of a property that is a single-family residence has maintained the property to the standard of care required under this article, as well as all other applicable ordinances and laws, the owner must register the property but may be exempt from the registration fees.

Jurisdiction.

Enforcement and penalties.

(a) Written notice of violation will precede the issuance of a criminal citation, in which the vacant property owner will be given a reasonable length of time, not to exceed 90 days, as determined by the director, to remedy the violation. Written notice shall be issued to the vacant structure property owner by means of personal service, or by first class mail to their last known address and by posting on the property.

(b) Failure to register with the department after written notice to the vacant structure property owner, as is hereinafter specified, is a violation of this article.

(c) Violation of this chapter is a misdemeanor. (The fine for this offense may not exceed one thousand dollars (\$1,000.00)).

(d) Administrative, civil, and criminal enforcement are alternative remedies which may be sought independently of each other. Criminal prosecution may occur regardless of pursuit of “civil or administrative remedies” and vice versa.

VACANT BUILDINGS ARTICLE III - EFFECTIVE DATE AND CONFLICTS

- (1) That Ordinance Number 3368 adopted February 4, 2025, and any other ordinances in conflict thereof are hereby repealed.
- (2) This ordinance shall take effect immediately upon its passage and publication, as it is deemed necessary to the public health of the city to register and inspect vacant buildings within the above described districts.

The above and foregoing Ordinances, after having been first reduced to writing, was introduced by Council Member , seconded by Council Member , and was adopted by the following, to wit;

YEAS:

NAYS:

ABSENT:

The President thereby declared the motion carried and the Ordinance adopted this the 4th day of **February 2025**.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

COUNCIL PRESIDENT

The above and foregoing Ordinance, having been submitted to and approved by the Mayor, this the 4th day of **February 2025**.

ATTEST:

APPROVED:

CITY CLERK

MAYOR



Memorandum

To: Mayor Toby Barker and Members of City Council

From:

cc:

Date: Tuesday, March 18, 2025

Re: Accept the Planning Commission's recommendation to approve a preliminary plat of a major subdivision request made by John Weeks, Property Owner/Applicant, Lamar Rutland, Engineer, and Rick Sullivan, Surveyor, for a A-1 zoned property, to be known as the Mineral Creek Estates, located on J Ed. Turner Drive (PPIN 9505, Ward 1, Forrest County).
File Number: 2025-214
Minute Book #

Summary

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.



**URBAN
DEVELOPMENT
PLANNING DIVISION**

**Planning Commission
Case Fact Sheet**

Names of Petitioner: John Weeks, Property Owner/Applicant, Lamar Ruthland, Engineer, and Rick Sullivan, Surveyor.

Address of Property:	Tax Parcels	PPIN:	Ward:
J Ed Turner	2-026O-34-001.00	9505	1

Request: Major Subdivision

Purpose of Request: John Weeks, Property Owner/Applicant, Lamar Rutland, Engineer, and Rick Sullivan, Surveyor, request approval for a preliminary plat for a major subdivision for an A-1 zoned property, to be known as the Mineral Creek Estates, located on J Ed. Turner Drive (PPIN 9505, Ward 1, Forrest County).

History / Background: The petitioner is proposing the subdivision of +/- 72.99 acres of land into an estate lot subdivision in the A-1 Zoning District along J. ED. Turner Road. The proposal would divide the properties into 9 separate lots, each with around 7.5 acres of land with lot frontages ranging from 315-351 feet.

The ~73 acres being proposed for a subdivision were recently divided through the minor subdivision process from a +/- 209.38-acre parcel, which fronted J. ED Turner Road, Lake Estates Drive, and Classic Drive. This was formalized and filed with the Chancery Clerk's office of Forrest County on January 28, 2025.

The proposed Mineral Creek Subdivision will extend along the existing roadway of J. ED Turner Road but will require the extension of water and sewer infrastructure. A section of wetlands identified by the National Wetland Inventory Map Layer extends across the property, as shown on the preliminary draft plat.

Applicant Summary: * See Attached *

Applicable Regulations:

SECTION 4 Zoning Districts Established

4.5.1 A-1 General Agricultural: The purpose of the A-1 Agricultural District is to permit agricultural uses and low-density residential development. This district is consistent with the Rural Residential / Agricultural District in the Comprehensive Plan. The district is intended to encourage and protect rural uses from urbanization until such is warranted and the appropriate change in district classification is made.

SECTION 4 Zoning Districts Established

Table 6.1 Dimensional Standards										
District	Minimum Lot Size in SF/ Width at Setback	Max. Dwelling Units	Max. Floor Area Ratio	Setbacks in feet				Max. Height*	Max. Impervious Surface Lot Coverage	Buffer in Feet
				Min. Front	Max. Front	Min. Side	Min. Rear			
A-1	130,680 / 100	1 per lot	-	25	-	15	25	35 feet or 3 stories	35%	-

SECTION 11 Administration and Enforcement

11.10.1.8 Subdivision Violations. The owner of a subdivision shall not transfer title to any lot in such subdivision until such time as the final plat has been approved by the appropriate authority as outlined in this Code and duly recorded in the office of the Chancery Clerk of Forrest County or Lamar County, Mississippi. Transfers prior to such approval and recording shall be deemed a violation of this Code and shall be subject to any and all remedies available to the City.

11.10.1.9 Recording Violations.

The Chancery Clerks of Forrest County and Lamar County, Mississippi shall not receive, file or record a plat of a subdivision

within the jurisdiction of this Land Development Code without prior approval of the appropriate authority as outlined in this Code. Plats recorded prior to such approval shall be deemed unlawful and invalid

SECTION 12

Process and Procedures

Categories of Development Approvals

12.3.2 Preliminary Plat Approval for Major Subdivisions

12.3.2.1 Approval Criteria.

- i. Conformance with the Hattiesburg Comprehensive Plan.
- ii. Conformance with the standards of the zoning district.
- iii. Conformance with other standards and requirements of this Code and other City policies and regulations.
- iv. Determination that adequate public facilities and services will be available concurrent with the impacts of the subdivision.
- v. Determination that the project will have little or no adverse or negative impacts upon the natural environment.

12.3.2.4 Final Plat.

- i. No Significant Change. Final plats of major subdivisions that are substantially the same as the approved preliminary plat, as determined by the Site and Design Review Committee, shall be approved administratively.
- ii. Significant Change. Final plats that exhibit any significant deviation from the approved preliminary plat, as determined by the Site Plan Review Committee, shall require approval by the Planning Commission.

12.3.2.5 Recording. In order to be an official and legal plat, the final approved plat must be recorded along with all applicable covenants, deed restrictions and property owners' association documents with the Chancery Clerk of Forrest or Lamar County, as appropriate. The City Engineer shall ensure that the City records this information within 90 days of submission for acceptance with any applicable bonds.

12.3.2.6 Duration

As this code and state and federal law may change over time, approval of a preliminary plat shall be effective for a maximum period of one (1) year for a permit to be submitted to the city. A six (6) month extension may be granted upon the Planning

Commission's recommendation to the City Council followed by an approval of the Council. An extension request must come in writing by the subdivider before the regularly scheduled Planning Commission hearing in which it is to be heard. The Planning Commission will offer its recommendation under "other business" as notice was given at the original hearing date. If the final plat has not been submitted to Urban Development within this time limit, the preliminary plat process shall begin anew.

12.3.2.7 Improvement Guarantees

Request for the final plat approval may be granted if one or more of the following improvement guarantees is posted with the City and recommended for acceptance by the City Attorney and City Engineer.

Site Stabilization Bond: Before construction permits can be approved, a bond assuring the stabilization of the site must be submitted to the City. This bond will serve as a guarantee that the site will be properly stabilized during and after construction including but not limited to: addressing erosion, sedimentation, other environmental impacts, safety concerns, and unsightly conditions per recommendation of the City Engineer. The bond amount is equal to the estimated cost of returning the site to a stable condition. The developer's engineer shall submit such estimate for approval to the City Engineer. The duration of the bond is a maximum of one (1) year, extendable one (1) time for up six (6) months.

Performance Bond: In place of the completion of improvements before the submission of the final plat for approval the city may accept a bond. The bond amount is equal to the estimated cost of completion plus ten (10) percent. The developer's engineer shall submit such estimate for approval to the City Engineer. The duration of the bond is a maximum of one (1) year, extendable one (1) time for up six (6) months. Where improvements have been installed as permitted and all improvements are deemed to be satisfactory through written notice of acceptance from the city engineer, bonds shall be returned to the subdivider, by action of the City Council. Completion of the improvements then shall transition into a maintenance bond.

Sidewalk Bond: If sidewalks are required for the development,

they must be installed prior to the acceptance of the final plat or they may be assured through a performance bond. The bond amount is equal to the estimated cost of completion plus ten (10) percent. The developer's engineer shall submit such estimate for approval to the City Engineer. The duration of the bond is a maximum of three (3) years. Where improvements have been installed as permitted and all improvements are deemed to be satisfactory through written notice of acceptance from the city engineer, bonds shall be returned to the subdivider, by action of the City Council.

Maintenance Bond: The subdivider must assure that the installation and construction of streets and other improvements are satisfactory, and that the standards prescribed in these regulations have been fulfilled. A maintenance bond is required upon completion of these improvements guaranteeing to the City the reasonable costs resulting from defective workmanship and/or materials. The maintenance bond shall equal ten (10) percent of the construction cost of all improvements as determined by the engineering department. This maintenance bond shall be in effect for one (1) year after acceptance of these improvements by the Governing Authorities.

Sixty (60) to forty-five (45) days prior to the conclusion of the warranty period the City Engineer will perform a final inspection of all improvements.

1. If all improvements are deemed to be satisfactory, written notice of acceptance from the city engineer shall be provided. The city council may release the maintenance bond and the city shall assume perpetual maintenance of all improvements in the subdivision.

2. Improvements that need repairs shall be noticed to the subdivider and city council. The city council may then extend the maintenance bond or draw funds from the bond to complete the necessary repairs.

Satisfactory Completion of Improvements: If any portion of the required improvements shall fail to be accepted for dedication either for reason of incompleteness or for reason of substandard construction, then the City Council shall take the following actions:

1. The subdivider and bonding agent shall be advised that the improvements must be completed or reconstructed under the bond. The City Council shall declare the bond to be

forfeited. Where the City is not already in possession of said bond, it shall immediately take the actions necessary to obtain it.

2. The City Council shall use any bond applicable to finance the completion or construction of improvements to the proper specifications. Unused portions of these securities, consistent with the city's damages and/or costs shall be used as a fine and submitted to the general fund of the city.

12.3.2.8 Utilities

All utilities are required to be installed underground. Crossing of creeks, streams, and rivers shall be done as inconspicuously as possible.

Present Zoning: The property is currently zoned A-1 General Agricultural

Present Use: Vacant/unimproved

Future Land Use: Neighborhood Conservation District 2.

Surrounding Zoning and Land Use:
North: R-1A Single-Family Residential
South: A-2 Agricultural Residential and R-1A Single-Family Residential
East: A-1 General Agricultural and R-1A Single-Family Residential
West: A-1 General Agricultural and I-1 Light Industrial

Letters or Concerns stated: As of finalizing this report, the Planning Division Office had received no calls or letters of concern.

Option: Recommend **Approval** or **Denial** of a preliminary plat for a major subdivision for a A-1 zoned property, to be known as the Mineral Creek Estates, located on J Ed. Turner Drive (PPIN 9505, Ward 1, Forrest County).

Basis for approval: Planning Commission must deem that all of the following approval criteria must be met before granting approval for the Preliminary Plat for a Major Subdivision:

12.3.2 Preliminary Plat Approval for Major Subdivisions **12.3.2.1 Approval Criteria.**

March 2025 HPC Item: C

John Weeks, Property Owner/Applicant, Lamar Rutland, Engineer, and Rick Sullivan, Surveyor

Request for: **Major Subdivision**

- i. Conformance with the Hattiesburg Comprehensive Plan.
- ii. Conformance with the standards of the zoning district.
- iii. Conformance with other standards and requirements of this Code and other City policies and regulations.
- iv. Determination that adequate public facilities and services will be available concurrent with the impacts of the subdivision.
- v. Determination that the project will have little or no adverse or negative impacts upon the natural environment.

SUBJECT PARCEL

J Ed Turner Drive — Major Subdivision

John Weeks, Property Owner/Applicant, Lamar Ruthland, Engineer, and Rick Sullivan, Surveyor, request approval for a preliminary plat for a major subdivision for a A-1 zoned property, to be known as the Mineral Creek Estates, located on J Ed. Turner Drive (PPIN 9505, Ward 1, Forrest County).





Zoning Map

- Subject Property
- A-1
- A-2
- R-1A
- R-1B
- I-1

Major Subdivision Request
J. Ed. Turner Road
PPIN: 9505
Flood Zone: X
Ward 1, Forrest County

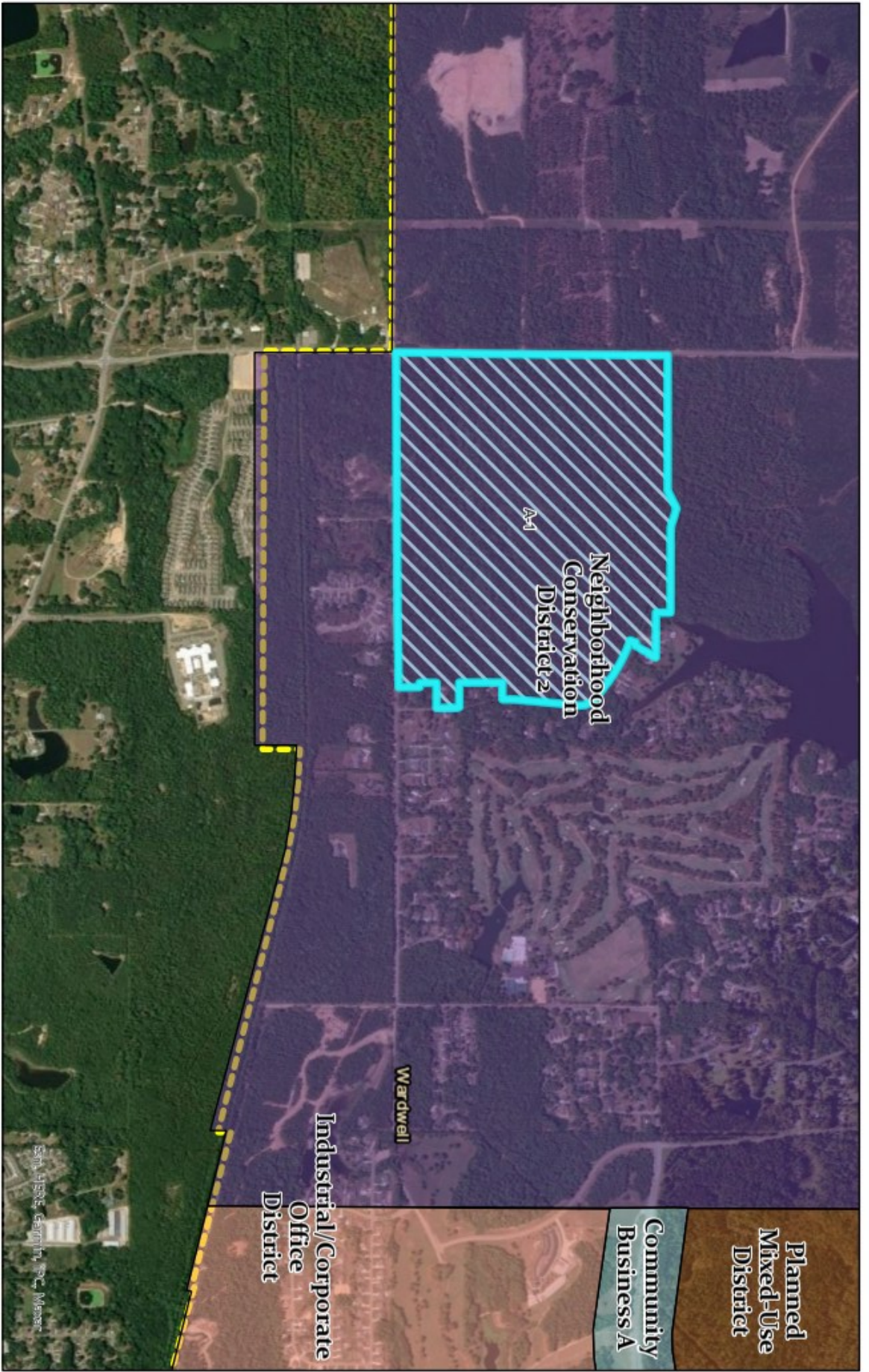
DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data. This information CANNOT be used as a substitute for legal, business, tax or other professional advice.
Map Exported on: 2/10/2025 4:21 PM

00.5 Miles

URBAN DEVELOPMENT

PLANNING DIVISION

Center: 89°23'36"W 31°20'48"N



Future Land Use Map

- Subject Property
- Community Business A
- Industrial/Corporate Office District
- Neighborhood Conservation District 2
- Planned Mixed-Use District
- City Boundaries

Request for a Major Subdivision
Jackson Road
PPIN: 27624
Flood Zone: X
Ward 3, Lamar County

DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data. This information CANNOT be used as a substitute for legal, business, tax or other professional advice. Map Exported on: 2/10/2025 4:21 PM

0 0.4 0.8 Miles

URBAN DEVELOPMENT
PLANNING DIVISION
Center: 89°23'17"W 31°20'52"N

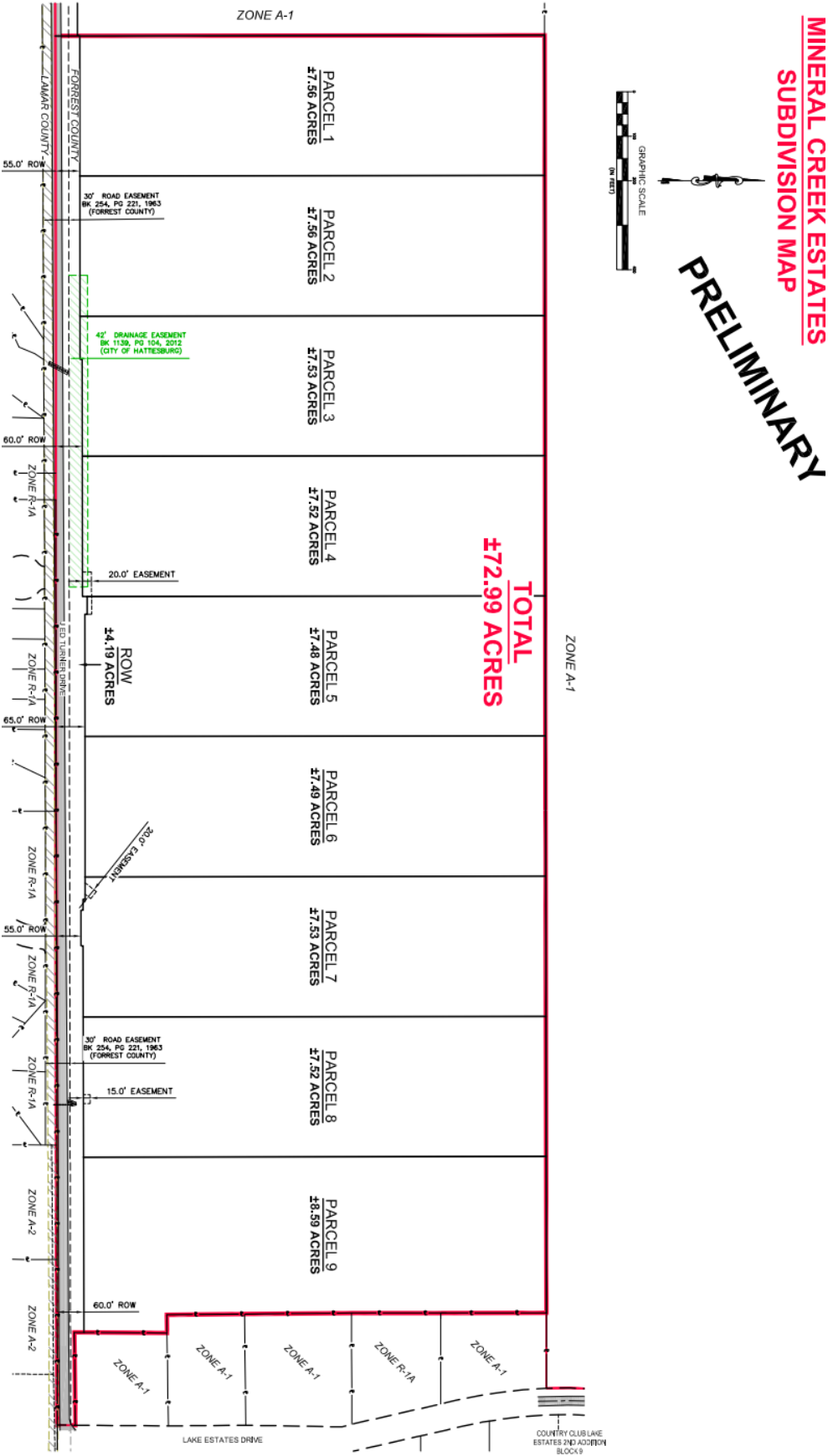
Site Aerial



Surrounding Area



Proposed Plat (Simplified)



SUBD-0125-0023



Application for Public Hearing

City of Hattiesburg – Planning Division

PO BOX 1898 – Hattiesburg, MS 39403-1898 | Phone (601)- 545-4599

NOTE:

- Fill this application out IN FULL with what applies to your application

Applicant Information

Name Applicant: John Weeks Project Name: Mineral Creek Estates

Municipal Address of Site: J Ed Truner Dr PPIN #: 9505 - Forrest Co

Parcel Number(s): 2-0260-34-001.00

Type of Public Hearing	Additional Information Needed:
☐ Variance	☐ Sign ☐ Setback ☐ Off-Site Parking ☐ Lot Width ☐ Lot Coverage Area ☐ Buffer ☐ Open Space ☐ Other: _____
☐ Rezoning	Existing Zoning: _____ Proposed Zoning: _____
☐ Conditional Use	☐ Automotive Filling Station ☐ Digital Billboard, New ☐ Digital Billboard, Replacement ☐ Telecommunications ☐ Restaurant ☐ Solar Farm ☐ Other: _____
☐ Minor Subdivision	
☒ Subdividing of lot, Parcel, or Tract	
☐ Street or Alley Renaming	
☐ Vacating Street or Alley	
☐ Overlay District	
☐ Planned Mixed-Use District (PMU)	
C	

For Staff Only:				
Zoning: <u>F-1</u>	Historic District: <u>N/A</u>	Flood Zone: <u>X</u>	Ward: ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
Project Number: <u>SUBD-0125-0023</u>		Received: 		
PPIN # or Parcel #: <u>9505</u>				

THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE **APPLICANT** OF THIS PETITION,
ONLY IF DIFFERENT FROM THE OWNER(S) OF THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the **APPLICANT(s)** of the subject property located at

J Ed Turner Dr, Hattiesburg, MS

Street Address

City

State

on this the 27 day of January, 2025.


Applicant

Applicant

STATE OF Mississippi

COUNTY OF Forrest

Personally came and appeared before me, the within named

John Weeks

who signed and delivered the above and foregoing instrument as and for their free act and deed on the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 27 day of January,
2025.



NOTARY PUBLIC

My Commission Expires:

August 31, 2026



THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE OWNER(S) OF THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the OWNER(s) of the subject property located at

J Ed Turner Dr, Hattiesburg, MS

Street Address

City

State

on this the 27 day of January, 2025.

In the matter of this request, the property owner further authorizes the following named person to represent them at the public hearing on this petition.

on this the _____ day of _____, 20____.



Property Owner

Property Owner

STATE OF Mississippi

COUNTY OF Forrest

Personally came and appeared before me, the within named

John Weeks

who signed and delivered the above and foregoing instrument as and for their free act and deed on the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 27 day of January, 2025.





NOTARY PUBLIC

My Commission Expires:
August 31, 2026

Subdividing of Lot, Parcel or Tract Information (1_page)

1. Property data:

Parent Parcel / Existing lot/parcel/tract contains 72.99 Ac Square Footage/Acres

Lot Area Requirement: 3 Ac

Lot Frontage Requirement: 100'

Existing use of lot/parcel/tract Agriculture/Woods

To be subdivided into 9 lots/parcels (including parent parcel) – outlined below.

Newly subdivide d Parcels	New lot size in square footage (sf) or acres (A)	New lot has public road frontage (yes / no)	New lot has private road frontage (yes / no)	Indicate name of public or private road(s)	Staff - Lot area & frontage requirements comply?	
					Yes	No
1.	7.56	315'		J Ed Turner Dr		
2.	7.56	315'		J Ed Turner Dr		
3.	7.53	315'		J Ed Turner Dr		
4.	7.52	315'		J Ed Turner Dr		
5.	7.48	315'		J Ed Turner Dr		
6.	7.49	315'		J Ed Turner Dr		
7.	7.53	315'		J Ed Turner Dr		
8.	7.52	315'		J Ed Turner Dr		
9.	8.42	354.4'		J Ed Turner Dr		
10.						
11.						
12.						
Be sure to include information on the remainder of "existing" lot after splits made – identified as "Parent Parcel"						
Parent Parcel	0.17	39.6'		J Ed Turner Dr		
	72.99	Total square footage of new lots (verify total matches existing parcel prior to splits)				

Use extra copies of this form if needed for additional lots.

2. Infrastructure required:

Water/Sewer ☒ Gas ☐ Electric ☐ Telephone ☐ Cable ☐ Streets ☐

MINERAL CREEK ESTATES

A RESUBDIVISION OF LOT 2 IN MINERAL CREEK MANOR

OWNER CERTIFICATION
STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

I, Mineral Creek Estates, LLC, John T Weeks, Owner, do hereby certify that the aforementioned is the Owner of the land described in the foregoing certificate of Richard E Sullivan, a Mississippi Registered Professional Land Surveyor, and that acting as the duly authorized official of the aforementioned have caused the same to be subdivided and platted as shown hereon, and have designated the same as Mineral Creek Estates.

Witness My Signature on this, the Day of 20_25_

DRAFT

Mineral Creek Estates, LLC
John T Weeks, Owner

STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

Personally appeared before me, the undersigned notary in the and for the jurisdiction aforesaid, John T Weeks of the within named Mineral Creek Estates, LLC, the Owner, who has acknowledged to me that he signed and delivered this plat and the Certificate thereon as his own act and deed for the same; and Richard E Sullivan, a Mississippi Registered Professional Land Surveyor, who also acknowledged to me that he signed and delivered this plat and the Certificate thereon.

Given under my hand and seal of office on this, the Day of 20_25_

MY COMMISSION EXPIRES:

NOTARY PUBLIC

SURVEYOR CERTIFICATION
STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

This is to certify that I, Richard E Sullivan, a Mississippi Registered Professional Land Surveyor have surveyed the property described hereon and have subdivided and platted the same at the request of Mineral Creek Estates, LLC, the Owner.

Witness My Signature on this, the Day of 20_25_

DRAFT

Richard E Sullivan PLS 3276

COMPARISON CERTIFICATION
STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

This is to certify that I, Lance Reed, Chancery Clerk, in and for the said State and County, and I, Richard E Sullivan, a Mississippi Registered Professional Land Surveyor, as maker of Mineral Creek Estates have compared this the COPY of Mineral Creek Estates with the ORIGINAL and the DUPLICATE, and find the same to be exact copies of each other.

Witness Our Signatures on this, the Day of 20_25_

CHANCERY CLERK

Richard E Sullivan PLS 3276

DRAFT

FINAL APPROVAL CERTIFICATION
STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

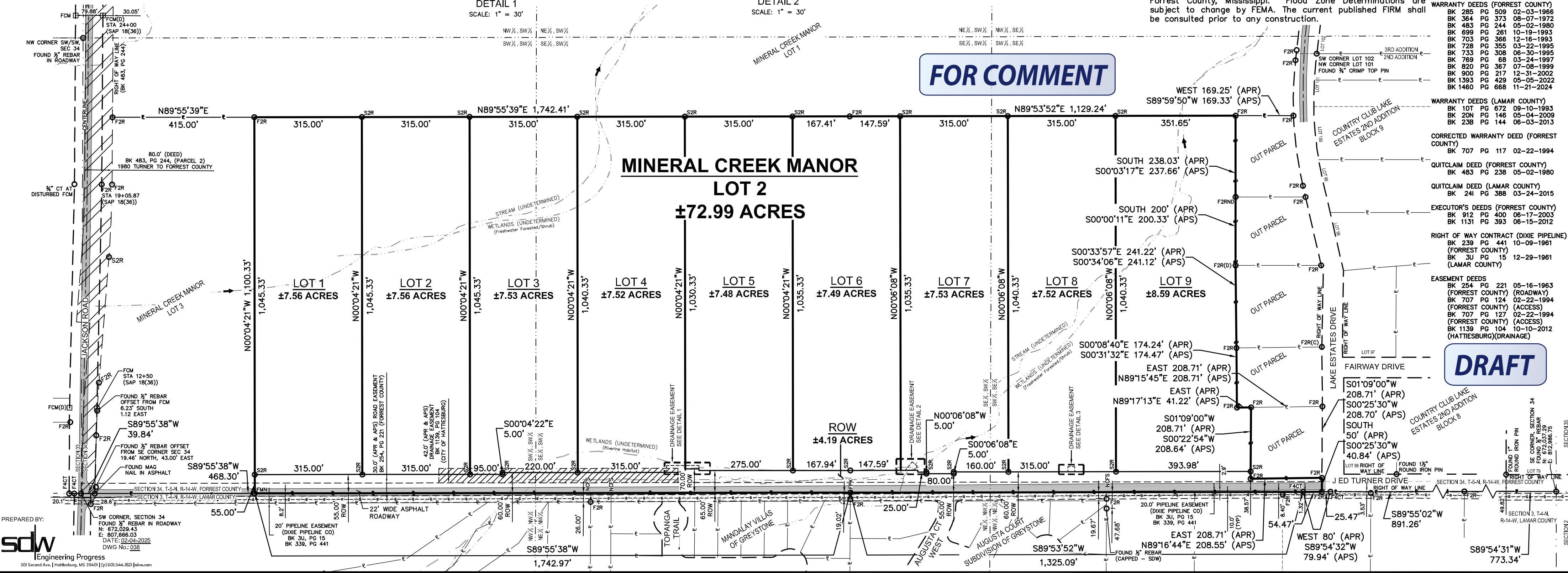
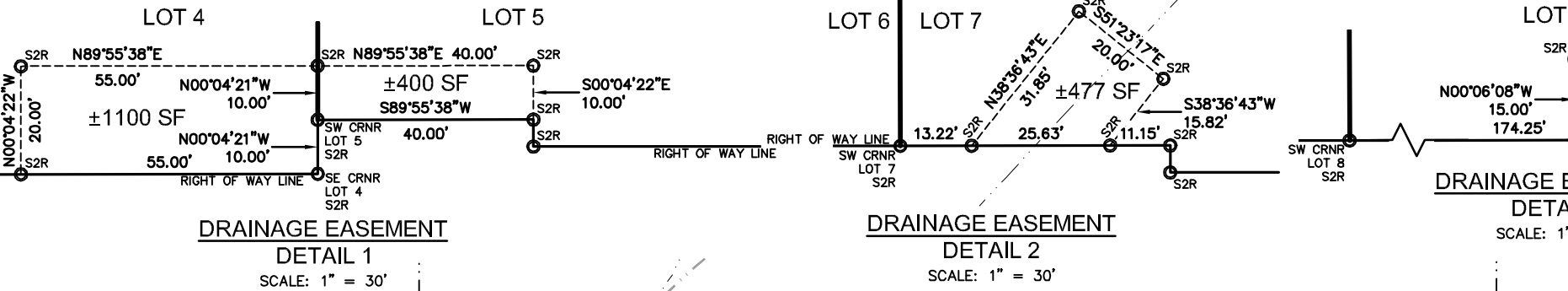
Survey checked on this, the Day of 20_25_ by Richard E Sullivan, PLS and approved by the City Engineer for the City of Hattiesburg on this, the Day of 20_25_

CITY ENGINEER

This, Mineral Creek Estates, is herein approved and accepted, and all improvements contained therein to be dedicated to the by the City of Hattiesburg, are hereby accepted for the City of Hattiesburg on this, the Day of 20_25_

CITY CLERK

MAYOR



COUNTY APPROVAL CERTIFICATION
STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

I hereby certify that this is a copy and this plat was approved by Board of Supervisors for filing purposes only in session on this,

the Day of 20_25_

BOARD OF SUPERVISORS
PRESIDENT

CHANCERY CLERK

CHANCERY CERTIFICATION
STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

I, Lance Reed, Clerk of the Chancery Court in and for said County and State, do hereby certify that the final Plat of Mineral Creek Manor, was filled for record in my office on this, the Day of 20_25_ and was duly recorded in Plat Book Page of the records and maps and plats of land in the Chancery Court of FORREST County, Mississippi.

Witness My Signature on this, the Day of 20_25_

DRAFT

CHANCERY CLERK

SURVEY BOUNDARY DESCRIPTION

State of Mississippi
County of Forrest
City of Hattiesburg

All of Lot 2 in Mineral Creek Manor, a Subdivision in the City of Hattiesburg, County of Forrest, State of Mississippi, as per Map or Plat thereof on file in the Office of the Chancery Clerk of Forrest County, Mississippi and comprising 72.99 Acres, more or less.

SURVEYOR'S NOTES:

- All paved areas are asphalt unless otherwise noted.
- No subsurface utilities are shown hereon. Utilities shown are based on visual evidence only.
- Streams are shown based on the USGS Quadrangle Map and the 2016 LIDAR for Forrest & Lamar Counties. The Surveyor does not guarantee the accuracy of the stream locations nor the determination of stream type.
- Wetland Data shown hereon is based on a data download from the National Wetland Inventory Web Mapper (<https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>) which was developed by the U.S. Fish and Wildlife Service, Division of Ecological Services under the US Department of the Interior in order to map wetlands and deepwater habitats and to produce reconnaissance level information on the location, type and size of these resources. Said Wetland Data was developed using a biological definition of wetlands and may not be consistent with wetland boundaries established according to the federal regulatory definition of wetlands under the Clean Water Act. The wetland data does not account for changes in the landscape that may have occurred after mapping. The Wetland Data Set, as shown hereon, is based on aerial imagery from 1980. The Wetland Data should not be interpreted as representing the presence, absence, or extent of wetlands that may be covered under one or more Federal, State, Tribal, or Local Laws. All development which could affect waters or wetlands should be reviewed and approved by the USACE regulatory office to ensure compliance with applicable Federal Wetland Regulations. Said Wetland Data was projected onto the field data for the Surveyed Parcel, as shown hereon, using the projection parameters provided. The Surveyor cannot and does not warrant, guarantee or certify as to the completeness, accuracy of the location or any definitions of any Wetland Data shown hereon. Any notation of the possible presence of Wetlands or Wetland related biologies, shown hereon, does NOT constitute the creation or conveyance of an easement for any purpose or to any person or entity. Any notation of the possible presence of a stream, regardless of type, as shown hereon, does NOT constitute the creation or conveyance of an easement for any purpose or to any person or entity.

- J Ed Turner Drive appears to be a public roadway. The Surveyed Parcel, shown hereon, appears to have access to a public road. J Ed Turner Road is a public roadway by virtue of a Conveyance of Easement Deed Bk 254, Pg 221, 05-16-1963 to Forrest County.
- This survey was performed with the benefit of a title opinion.
- Record Deeds noted hereon are the latest available based on the County Tax Roll database and County Land Records.
- A complete easement search was not performed. Easements found during records research appear to be broad in nature & are not definitively described with boundaries, other than the whole boundaries of the parcel(s) affected.
- All SIP Corners are Set 1/2"x18" Rebar with Caps, unless otherwise noted.
- The Surveyed Parcel, shown hereon, is located within an Area having a Flood Zone Designation "X", Areas Determined to be Outside the 0.2% Annual Chance of Flood Floodplain by the Federal Emergency Management Agency (FEMA), on Flood Insurance Rate Map (FIRM) No. 280335C0085D, with a Date of Identification of March 2, 2010 for Community No. 280053, in Forrest County, Mississippi. Flood Zone Determinations are subject to change by FEMA. The current published FIRM shall be consulted prior to any construction.

SURVEY DATE: AUGUST 20-21, 27-30, 2024
SEPTEMBER 3-6, 2024
NOVEMBER 13-15, 22-27, 2024

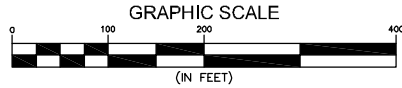
JUDGED TO BE A CLASS 'C' SURVEY
SURVEYED TO CLASS 'B'

BEARINGS ARE BASED ON MS STATE PLANE COORDINATE SYSTEM, ZONE EAST GRID, US SURVEY FEET, AS DETERMINED BY GPS

HORIZONTAL DATUM: NAD 83(2011)
CONTROL STATION: RTCM0008 (USM CAMPUS)
HATTIESBURG, MS

N: 665,022.122
E: 827,206.385
Z: 303.382

AT THE SOUTHEAST CORNER, SECTION 34, TOWNSHIP 5 NORTH, RANGE 14 WEST:
COMBINED SCALE FACTOR: 0.999976185
CONVERGENCE: -01707.43"



LEGEND:

- APR - AS PER RECORD
- APS - AS PER SURVEY
- BK - BOOK
- C - CENTERLINE
- E - EASTING (GRID COORDINATE)
- FCM - FOUND CONCRETE MONUMENT
- FCM(D) - FOUND CONCRETE MONUMENT (DISTURBED)
- FMN - FOUND MAG NAIL IN ASPHALT
- FPK - FOUND PK NAIL
- F2R - FOUND 1/2" REBAR
- F2R(C) - FOUND 1/2" REBAR (CAPPED)
- F2R(D) - FOUND 1/2" REBAR (DISTURBED)
- F2RND - FOUND 1/2" ROUND IRON PIN
- F3RND - FOUND 3/4" ROUND IRON PIN
- F4CT - FOUND 3/4" CRIMP TOP PIN
- N - NORTHING (GRID COORDINATE)
- NCSF - NO CORNER FOUND OR SET
- PG - PAGE
- PARCEL LINE - PARCEL LINE
- QUARTER SECTION LINE - QUARTER SECTION LINE
- SEC - SECTION
- S2R - SET 1/2" REBAR
- SF - SQUARE FEET
- STA - STATION

REFERENCE MATERIALS:

- FORREST COUNTY TAX MAP
LAMAR COUNTY TAX MAP
- PLAT OF MINERAL CREEK MANOR
BK PG
- PLAT OF COUNTRY CLUB LAKE ESTATES
2ND ADDITION (FORREST COUNTY)
BK 10 PG 24 08-19-1968
- PLAT OF AUGUSTA COURT SUBDIVISION OF
GRAYSTONE (LAMAR COUNTY)
BK 3 PG 358 01-16-2008
- PLAT OF MANDALAY VILLES OF
GRAYSTONE (LAMAR COUNTY)
BK 3 PG 359 01-16-2008
- FINAL PLANS OF COMPLETED WORK FOR
STATE AID PROJECT FOR JACKSON ROAD
(FORREST COUNTY)
No. SAP 18(36) 08-28-1982
- WARRANTY DEEDS (FORREST COUNTY)
BK 285 PG 509 02-03-1966
BK 364 PG 373 08-07-1972
BK 483 PG 244 05-02-1980
BK 699 PG 261 10-19-1993
BK 703 PG 366 12-16-1993
BK 728 PG 355 03-22-1995
BK 733 PG 308 06-30-1995
BK 769 PG 68 03-24-1997
BK 820 PG 367 07-08-1999
BK 900 PG 217 12-31-2002
BK 1393 PG 429 05-05-2022
BK 1460 PG 668 11-21-2024
- WARRANTY DEEDS (LAMAR COUNTY)
BK 101 PG 672 09-10-1993
BK 20N PG 148 05-04-2009
BK 238 PG 144 06-03-2013
- CORRECTED WARRANTY DEED (FORREST COUNTY)
BK 707 PG 117 02-22-1994
- QUITCLAIM DEED (FORREST COUNTY)
BK 483 PG 236 05-02-1980
- QUITCLAIM DEED (LAMAR COUNTY)
BK 241 PG 388 03-24-2015
- EXECUTOR'S DEEDS (FORREST COUNTY)
BK 912 PG 400 06-17-2003
BK 1131 PG 393 06-15-2012
- RIGHT OF WAY CONTRACT (DIXIE PIPELINE)
(FORREST COUNTY)
BK 3U PG 15 12-29-1961
(LAMAR COUNTY)
- EASEMENT DEEDS
BK 254 PG 221 05-16-1963
(FORREST COUNTY) (ROADWAY)
BK 707 PG 124 02-22-1994
(FORREST COUNTY) (ACCESS)
BK 707 PG 127 02-22-1994
(FORREST COUNTY) (ACCESS)
BK 1139 PG 104 10-10-2012
(HATTIESBURG) (DRAINAGE)

DRAFT

John T Weeks

PPIN: 9505

Parcel No. 2-026O-34-001.00

SURVEY BOUNDARY DESCRIPTION

State of Mississippi

County of Forrest

City of Hattiesburg

All of Lot 2 in Mineral Creek Manor, a Subdivision in the City of Hattiesburg, County of Forrest, State of Mississippi, as per Map or Plat thereof on file in the Office of the Chancery Clerk of Forrest County, Mississippi and comprising **72.99 Acres**, more or less.



DEED
BK:1460 PAGE:668-685
RCD:11/21/2024 @ 2:44:48 PM
Forrest County, MS
Lance C. Reid Chancery Clerk

Prepared by and Return to:
Luckett Land Title, Inc.
Joseph M. Gianola, Jr. (MSB#101972)
63 98 Place Boulevard
Hattiesburg, MS 39402
(601) 450-0065
File No. 24-2073H

INDEXING INSTRUCTIONS: W ½ of NE ¼, the W ½ of SE ¼, the S ½ of SE ¼ of SE ¼ and the W ½ of
Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi

STATE OF MISSISSIPPI

COUNTY OF FORREST

WARRANTY DEED

FOR AND IN CONSIDERATION of the sum of Ten and No/100 Dollars (\$10.00), cash in hand paid, and other good and valuable consideration, the receipt, adequacy and sufficiency of all of which is hereby irrevocably acknowledged and confessed, the Grantors,

LYNN T. SHAVER,
208 White Oak Rd.
Pine Mountain, GA 31822
(404) 316-7129

MARY S. TURNER,
205 Greenwood Pl.
Hattiesburg, MS 39402
(601) 466-5032

**JAMES EDWARD
TURNER, III,**
347 Cotton Row
Cleveland, MS 38732
(662) 588-7778

RUSSELL B. TURNER,
2820 Reagan St., Apt. 105
Dallas, TX 75219
(601) 467-7478

THOMAS SHAVER,
208 White Oak Rd.
Pine Mountain, GA 31822
(404) 316-7129

CHRIS SHAVER,
2598 Lulworth Lane
Marietta, GA 30062
(770) 361-1973

ERIC B. SHAVER,
508 Ashley Way
Peachtree City, GA 30269
(770) 633-3981

RJCO, LLC,
a MS limited liability company
347 Cotton Row
Cleveland, MS 38732
(662) 588-7778

do hereby grant, bargain, sell, convey and warrant unto the Grantee,

JOHN T. WEEKS
301 Second Ave.
Hattiesburg, MS 39402
(601)270-5260

the following described real property lying and being situated in Forrest County, Mississippi, and being more particularly described as follows, to-wit:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

By way of explanation, the subject property is no part of the homestead of the Grantors herein nor is it adjacent or contiguous thereto.

This conveyance and the warranty hereof is subject to the Right-of-Way Easement to Dixie Pipeline Company recorded January 10, 1962 in Book 239 at Page 441 in the office of the Chancery Clerk of Forrest County, Mississippi.

This conveyance and the warranty hereof is subject to the Easement to Forrest County, Mississippi, recorded May 15, 1963 in Book 254 at Page 221 in the office of the Chancery Clerk of Forrest County, Mississippi.

This conveyance and the warranty hereof is subject to the Drainage Easement to Forrest County, Mississippi, recorded May 2, 1980 in Book 483 at Page 242 in the office of the Chancery Clerk of Forrest County, Mississippi.

This conveyance and the warranty hereof is subject to the Construction and Maintenance Easement to Forrest County, Mississippi recorded May 2, 1980 in Book 483 at Page 247 in the office of the Chancery Clerk of Forrest County, Mississippi.

This conveyance and the warranty hereof is subject to the Easement to Forrest County, Mississippi, recorded in Book 483 at Page 249 in the office of the Chancery Clerk of Forrest County, Mississippi.

This conveyance and the warranty hereof is subject to the Easement recorded February 22, 1994 in Book 707 at Page 127 in the office of the Chancery Clerk of Forrest County, Mississippi.

This conveyance and the warranty hereof is subject to the Easement recorded February 22, 1994 in Book 707 at Page 124 in the office of the Chancery Clerk of Forrest County, Mississippi.

This conveyance and the warranty hereof is subject to the Easement to the City of Hattiesburg recorded October 10, 2012 in Book 1139 at Page 104 in the office of the Chancery Clerk of Forrest County, Mississippi. This conveyance and the warranty hereof is subject to any and all prior and outstanding leases, exceptions, reservation and/or conveyances of oil, gas and/or other minerals and any geothermal energy resources lying in, on and under the above described real property.

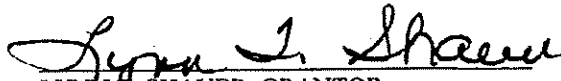
This conveyance and the warranty hereof is subject to any environmental condition existing upon the subject property which would cause said property to be in violation of any State and/or Federal Environmental Protection Act.

This conveyance and the warranty hereof is subject to any and all other easements and rights-of-way, whether of record or of use, which affect the real property hereby conveyed.

This conveyance and the warranty hereof is subject to any and all Covenants and Restrictions of record.

IT IS AGREED and understood that the taxes for the current year have been prorated as of this date on an estimated basis. When said taxes are actually determined, if the pro-ration as of this date is incorrect, then the Grantor(s) agree to pay to the Grantee(s) or their assigns any amount which is deficit on an actual pro-ration and likewise, the Grantee(s) agree to pay to the Grantor(s) any amount overpaid by Grantor(s).

WITNESS MY SIGNATURE on the date of my respective acknowledgment.


LYNN T. SHAVER, GRANTOR

STATE OF GEORGIA

COUNTY OF

Harris

THIS DAY personally came and appeared before me, the undersigned authority in and for the jurisdiction above stated, Lynn T. Shaver, who stated and acknowledged to me that she did execute, sign and deliver the above and foregoing instrument on the date and for the purposes therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 14th of November, 2024.

Leclaire G. Malott
NOTARY PUBLIC

My Commission Expires:

08/18/2025



WITNESS MY SIGNATURE on the date of my respective acknowledgment.

Mary S. Turner
MARY S. TURNER, GRANTOR

STATE OF MISSISSIPPI

COUNTY OF LAMAR

THIS DAY personally came and appeared before me, the undersigned authority in and for the jurisdiction above stated, Mary S. Turner, who stated and acknowledged to me that she did execute, sign and deliver the above and foregoing instrument on the date and for the purposes therein stated.

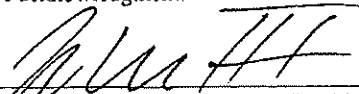
GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 20th of November, 2024.

Y. Bookout
NOTARY PUBLIC

My Commission Expires:



WITNESS MY SIGNATURE on the date of my respective acknowledgment.


JAMES EDWARD TURNER, III, GRANTOR

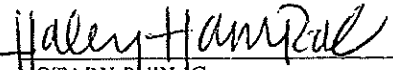
STATE OF MISSISSIPPI

COUNTY OF Bolivar

THIS DAY personally came and appeared before me, the undersigned authority in and for the jurisdiction above stated, James Edward Turner, III, who stated and acknowledged to me that he did execute, sign and deliver the above and foregoing instrument on the date and for the purposes therein stated.

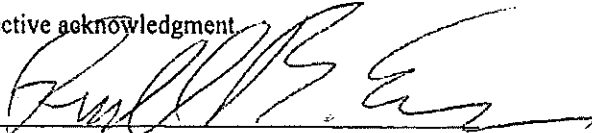
GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 20th of November, 2024.

State of Mississippi
Haley A Hamrick, Notary Public
Bolivar County
My Commission Expires September 25, 2028
Commission Number 117854


NOTARY PUBLIC

My Commission Expires: _____

WITNESS MY SIGNATURE on the date of my respective acknowledgment



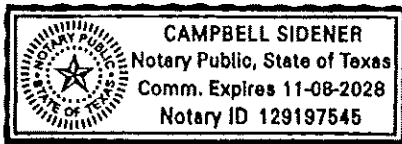
RUSSELL B. TURNER, GRANTOR

STATE OF TEXAS

COUNTY OF DALLAS

THIS DAY personally came and appeared before me, the undersigned authority in and for the jurisdiction above stated, Russell B. Turner, who stated and acknowledged to me that he did execute, sign and deliver the above and foregoing instrument on the date and for the purposes therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 14th of November, 2024.





NOTARY PUBLIC

My Commission Expires: 11/08/2028

WITNESS MY SIGNATURE on the date of my respective acknowledgment.

Thomas Shaver
THOMAS SHAVER, GRANTOR

STATE OF GEORGIA

COUNTY OF Harris

THIS DAY personally came and appeared before me, the undersigned authority in and for the jurisdiction above stated, Thomas Shaver, who stated and acknowledged to me that he did execute, sign and deliver the above and foregoing instrument on the date and for the purposes therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 14th of November, 2024.

Fredarius C. Marshall
NOTARY PUBLIC

My Commission Expires: 08/18/2025



WITNESS MY SIGNATURE on the date of my respective acknowledgment.

Chris Shaver

CHRIS SHAVER, GRANTOR

STATE OF GEORGIA

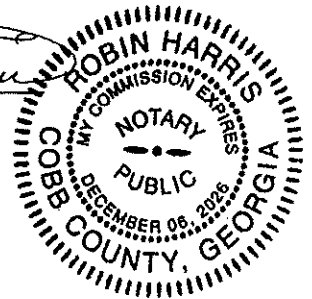
COUNTY OF COBB

THIS DAY personally came and appeared before me, the undersigned authority in and for the jurisdiction above stated, Chris Shaver, who stated and acknowledged to me that he did execute, sign and deliver the above and foregoing instrument on the date and for the purposes therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 14th of November, 2024.

[Signature]
NOTARY PUBLIC

My Commission Expires: 12/06/2026



WITNESS MY SIGNATURE on the date of my respective acknowledgment.

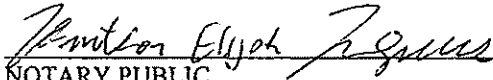

ERIC B. SHAVER, GRANTOR

STATE OF GEORGIA

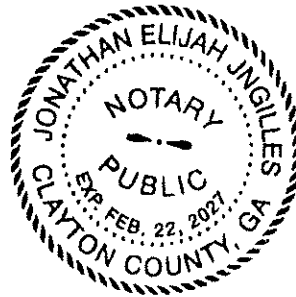
COUNTY OF Fayette

THIS DAY personally came and appeared before me, the undersigned authority in and for the jurisdiction above stated, Eric B. Shaver, who stated and acknowledged to me that they did execute, sign and deliver the above and foregoing instrument on the date and for the purposes therein stated.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 13 of November, 2024.


NOTARY PUBLIC

My Commission Expires: 02/22/2027



WITNESS MY SIGNATURE on the date of my respective acknowledgment.

RJCO, LLC

By: 

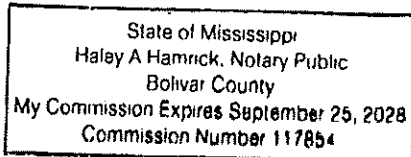
James E. Turner, III, Member

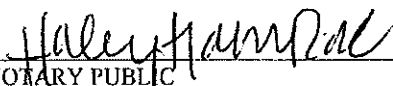
STATE OF MISSISSIPPI

COUNTY OF Bolivar

Personally appeared before me, the undersigned authority in and for the said county and state, within my jurisdiction, the within named, James E. Turner, III, who acknowledged that he is a Member of RJCO, LLC, and that for and on behalf of the said limited liability company, and as its act and deed he executed the above and forgoing instrument, after first having been duly authorized by said limited liability company to do so.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 20th of November, 2024.




NOTARY PUBLIC

My Commission Expires: _____

EXHIBIT "A"

The W ½ of NE ¼ and the W ½ of SE ¼ and the S ½ of SE ¼ of SE ¼ and the W ½ of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi.

AND ALSO, an Easement described in Book 483 at Page 238 in office of the Chancery Clerk of Forrest County, Mississippi, pertaining to the following described property:

Begin at the point of intersection to the West right of way line of proposed State Aid Project No. SAP 18(36) said point being 642 feet North of the Southwest corner of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi; thence Northerly along the said West Line of Section 34, 4668 feet to the northwest corner of said Section 34; thence Easterly along the North line of said Section 34, 13 feet to the said West right of way line of Proposed State Aid Project No. SAP 18(36); thence S00°02'05"W and along the said proposed West right of way line 4400 feet to a point 40 feet West of the centerline station 19+06.15 said point also being the point of tangency on proposed State Aid Project No. SAP 18(36); thence run Southwesterly along said right of way curve having a central angle of 4°11'04" a radius of 2824.79 feet and a degree of curve of 2°01'42" for 206.30 feet said point being 40 feet westerly of the centerline Station 16+96.93 said point being the point of curvature of said curve; thence run S04°13'09"W, 59 feet to the point of beginning.

AND ALSO, an Easement described in Book 707 at Page 127 in office of the Chancery Clerk of Forrest County, Mississippi, pertaining to the following described property:

A part of the SE 1/4 of the NW 1/4 of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, more particularly described as follows: Commence at the Southwest Corner of Lot 127 of Country Club Lake Estates 3rd Addition as per the official plat on file in the office of the Chancery Clerk of Forrest County, Mississippi; thence South 21 degrees 47 minutes 54 seconds West along the Western end of Lake Estates Drive, a public road, 17.34 feet; thence North 67 degrees 56 minutes 39 seconds West, 713.78 feet; thence North 70 degrees 03 minutes 21 seconds West, 296.37 feet to the point of beginning; thence North 89 degrees 45 minutes 51 seconds West, 79.43 feet; thence North 71 degrees 25 minutes 31 seconds West, 179.37 feet; thence North 81 degrees 02 minutes 00 seconds West, 145.95 feet; thence North 59 degrees 29 minutes 14 seconds West; 68.07 feet; thence South 81 degrees 02 minutes 00 seconds East, 243.57 feet; thence South 70 degrees 03 minutes 21 seconds East, 225.18 feet to the point of beginning; said property containing 0.24 acres, more or less.

LESS AND EXCEPT:

A parcel of land located in the Southwest Quarter of the Southeast Quarter of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi and being more particularly described as follows: Commence at the Southeast Corner of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi; thence West 1686.32 feet; thence North 50.0 feet to the point of beginning; said point being where the Northerly margin of Country Club Road and the Westerly margin of Lake Estates Drive intersect; thence North one (01) degree, Nine (09) minutes, zero (00) seconds East along the Westerly margin of Lake Estates Drive, 208.81 feet; thence West 208.71 feet; thence South one (01) degree, nine (09) minutes, zero (00) seconds West to the Northerly margin of Country Club Road; thence East 208.71 feet back to the point of beginning; the above described area contains 1 acre, more or less.

AND ALSO, LESS AND EXCEPT:

A parcel of land located in the Southwest Quarter of the Southeast Quarter of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, and being more particularly described as follows:

Commence at the Southeast Corner of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi; thence West 1686.32 feet; thence North 50.0 feet; thence North one (01) degree, nine (09) minutes, zero (00) seconds East 208.71 feet to the Point of Beginning; said point being on the Westerly margin of Lake Estates Drive; thence North zero (00) degrees, eight (08) minutes, forty (40) seconds East and along the Westerly margin of Lake Estates Drive, 174.24 feet; thence West 250.0 feet; thence South zero (00) degrees, eight (08) minutes, forty (40) seconds West 174.24 feet; thence East 250.0 feet back to the Point of Beginning; the above described area contains 1.00 acre, more or less; together with all improvements thereon and appurtenances thereunto belonging.

AND ALSO, LESS AND EXCEPT:

A part of the NE $\frac{1}{4}$ of SW $\frac{1}{4}$ of SE $\frac{1}{4}$ of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi and more particularly described as follows: Commence at the Southeast Corner of above said NE $\frac{1}{4}$ of SW $\frac{1}{4}$ of SE $\frac{1}{4}$ and run West for 364.3 feet to the Point of Beginning, said point being on the westerly margin of Lake Estates Drive; thence continue West for 250 feet; thence north 200 feet; thence East 204.6 feet to the westerly margin of Lake Estates Drive; thence run South 12 degrees 47 minutes East and along said westerly margin of Lake Estates Drive for 205.2 feet to the Point of Beginning, and containing 1 acre, more or less.

AND ALSO, LESS AND EXCEPT:

A part of the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi being more particularly described as follows:

Commence at the SE Corner of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi; thence West 1686.32 feet along the South line of Section 34; thence North 50 feet to the intersection at the North Right of Way Line of Country Club Road and the West Right of Way Line of Lake Estates Drive; thence North 580.20 feet along the West Right of Way Line of Lake Estates Drive; thence North 12 degrees 47 minutes 00 seconds West, 227.71 feet along the West Right of Way Line of Lake Estates Drive to the point of beginning; thence West 204.62; thence North 238.03 feet; thence East 169.25 feet back to the West Right of Way Line of Lake Estates Drive; thence in a Southwesterly direction along a curve to the Left having a radius of 1176.50 feet and an arc length 206.94 feet (chord bearing and distance of South 07 degrees 44 minutes 21 seconds East 206.67 feet) along the West Right of Way line of Lake Estates Drive; thence South 12 degrees 47 minutes 00 seconds, East 34.09 feet along the West Right of Way line of Lake Estates Drive Back to the Point of Beginning; said property containing 1.00 acre (43,560 square feet), more or less.

AND ALSO, LESS AND EXCEPT:

Lots 76, 77, 78 and 79, Block Seven (7) of Country Club Lake Estates 2nd Addition in the County of Forrest, State of Mississippi, as per the map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi, in Plat Book 10 at Page 24;

AND ALSO, LESS AND EXCEPT:

Lots 80, 81, 82, 83, 84, 85, 86, 87 and 88, Block Eight (8) of Country Club Lake Estates 2nd Addition in the County of Forrest, State of Mississippi, as per the map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi, in Plat Book 10 at Page 24;

AND ALSO, LESS AND EXCEPT:

Lots 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 and 101, Block Nine (9) of Country Club Lake Estates 2nd Addition in the County of Forrest, State of Mississippi, as per the map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi, in Plat Book 10 at Page 24; together with all improvements thereon and appurtenances thereunto belonging.

AND ALSO, LESS AND EXCEPT:

A part of the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 35 and a part of the S $\frac{1}{2}$ of the SE $\frac{1}{4}$ of Section 34 and more particularly described as follows: Begin at the SE corner of said Section 34 and run West along the South boundary of said Section 34 for 1686.32 feet; thence run North for 632.2 feet; thence run North 12 degrees 47 minutes West for 261.8 feet to the beginning of a curve to the right of radius 11.76.5 feet; thence run Northerly and along said curve to the right for 369.5 feet to the end of said curve; thence run North 5 degrees 13 minutes West for 25.5 feet; thence run East for 437.9 feet to the East boundary of the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of said Section 34; thence run South along said East boundary of said 40 acres for 620 feet; thence run East 1332 feet to a point on the East boundary of said Section 34, said point being also the Northwest corner of the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of said Section 35; thence run South 89 degrees 41 minutes along the North boundary of said 10 acres for 165 feet; thence run South 0 degrees 19 minutes West for 660 feet to the South boundary of said Section 35; thence run North 89 degrees 41 minutes along said South boundary of Section 35 for 165 feet to the point of beginning; all the above described property being in Township 5 North, Range 14 West, Forrest County, Mississippi.

AND ALSO, LESS AND EXCEPT:

A subdivision of a part of the W $\frac{1}{2}$ of the SE $\frac{1}{4}$ and a part of the SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, and more particularly described as beginning at the Southeast Corner of the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of said Section 34, and run North for 2380.9 feet; thence North 56 degrees 42 minutes West for 106 feet; thence South 52 degrees 00 minutes West for 90 feet; thence North 9 degrees 30 minutes West for 97 feet; thence North 48 degrees 30 minutes West for 108 feet; thence North 3 degrees, 00 minutes East for 69 feet; thence North 63 degrees 00 minutes West for 133 feet; thence South 8 degrees 00 minutes West for 75 feet; thence South 20 degrees 00 minutes East for 88 feet; thence South 84 degrees 09 minutes West for 59.3 feet; thence South 50 degrees 01 minute West for 77 feet; thence North 6 degrees 58 minutes West for 227 feet; thence South 34 degrees 32 minutes West for 330 feet; thence South 16 degrees 02 minutes West for 242 feet; thence South 17 degrees 28 minutes East for 100 feet; thence South 44 degrees 07 minutes West for 101 feet; thence South 6 degrees 17 minutes East for 124.9 feet; thence South 43 degrees 21 minutes East for 134.3 feet; thence South 44 degrees 20 minutes West for 49.1

feet; thence South 33 degrees 29 minutes East for 98.5 feet; thence North 53 degrees 18 minutes East for 95 feet; thence South 9 degrees 22 minutes East for 100.6 feet; thence South 68 degrees 27 minutes West for 54.3 feet; thence South 30 degrees 19 minutes East for 173.1 feet; thence South 36 degrees 20 minutes East for 325.2 feet; thence South 24 degrees 23 East for 152.1 feet; thence South 62 degrees 12 minutes East for 34.6 feet thence South 50 degrees 21 minutes East for 82.5 feet; thence South 4 degrees 58 minutes West for 31.8 feet; thence South 81 degrees 47 minutes West for 77.8 feet; thence North 58 degrees 17 minutes West for 99.8 feet; thence North 14 degrees 54 minutes West for 85.1 feet; thence North 31 degrees 30 minutes West for 50 feet; thence North 39 degrees 45 minutes West for 151.2 feet; thence South 6 degrees 46 minutes West for 90.7 feet; thence North 41 degrees 05 minutes West for 45.3 feet; thence North 13 degrees 54 minutes East for 85.5 feet; thence North 43 degrees 07 minutes West for 142.6 feet; thence South 38 degrees 32 minutes West for 65.9 feet; thence North 22 degrees 37 minutes West for 46.2 feet; thence South 50 degrees 19 minutes West for 398.4 feet; thence South 22 degrees 27 minutes West for 60 feet; thence South 67 degrees 34 minutes East for 62.4 feet to the point of beginning of a curve to the right with a radius of 1372.7 feet; thence run Southeasterly and along said curve for 360 feet to the end of said curve; thence run South 52 degrees 34 minutes East for 195.2 feet to the beginning of a curve to the right with a radius of 226.8 feet; thence run Southeasterly and along said curve for 227.3 feet to the end of said curve; thence South 5 degrees 13 minutes West for 580 feet; thence East for 437.9 feet to the east boundary of the SW ¼ of the SE ¼ of said Section 34; thence run North along said East boundary of said 40 acres for 40 feet to the Point of Beginning.

AND ALSO, LESS AND EXCEPT:

Country Club Lake - Part of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi. A 56 acre (more or less) lake, located in the NE ¼ of the NW ¼ and the SE ¼ of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, and being bordered on the east side by Country Club Lake Estates First Addition according to the official map and plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi, and recorded in Plat Book 10 at Page 25 and on the east and south sides by Country Club Lake Estates Third Addition according to the official map thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi, and recorded in Plat Book 11 at Page 24 and being bordered on the north by an existing dam and on the west by undeveloped property owned by J. Ed Turner which was conveyed to him by T. J. Rester, T. J. Rester, Jr., Shirley Rester Konrad on February 1, 1966, and recorded in the office of the Chancery Clerk of Forrest County, Mississippi in Book 285 at Pages 509-514 and recorded in the office of the Chancery Clerk of Lamar County, Mississippi, in Book 4-F on Pages 463-468.

AND ALSO, LESS AND EXCEPT:

A part of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, being more particularly described as follows: Commence at the Northwest Corner of said Section 34 and run South 89 degrees 17 minutes 35 seconds East along the North line of said Section 34, 60.0 feet to the East right of way of Jackson Road (a public road) and the point of beginning of the property herein described; thence continue South 89 degrees 17 minutes 35 seconds East along the said North line of Section 34, 3,135.22 feet; thence South 00 degrees 42 minutes 25 seconds West, 186.93 feet to the waters edge of Country Club Lake as defined by mean sea level elevation of 218.00; thence run a Southwesterly direction along the waters edge of Country Club Lake a distance of 5,165 feet, more or less, to an iron pipe; thence North 89 degrees 45 minutes 51 seconds West, 1,015.17 feet; thence North 71 degrees 56 minutes 35 seconds West, 152.11 feet; thence North 78 degrees 07 minutes 47 seconds West, 38.90 feet; thence South 73 degrees 33

minutes 46 seconds West, 189.61 feet; thence North 89 degrees 45 minutes 51 seconds West, 1,367.93 feet to the East right of way line of the above said Jackson Road; thence along the said East right of way line of Jackson Road the following courses and distances; North 0 degrees 06 minutes 10 seconds West, 1,306.12 feet to a right of way marker North 0 degrees 55 minutes 51 seconds East, 865.08 feet to a right of way marker, North 0 degrees 03 minutes 04 seconds West, 337.94 feet to the point of beginning; said property containing 159.0 acres, more or less.

AND ALSO, LESS AND EXCEPT that section of Mineral Creek crossing the above described property being more particularly described as follows: Commence at the Northwest Corner of said Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, and run South 89 degrees 17 minutes 35 seconds East along the North line of said Section 34, 60.0 feet to the East right of way line of the above said Jackson Road; thence along the said East right of way line of Jackson Road the following courses and distances: South 0 degrees 03 minutes 04 seconds East 337.94 feet to a right of way marker; South 0 degrees 55 minutes 51 seconds West, 865.08 feet to a right of way marker; South 0 degrees 06 minutes 10 seconds East, 1,306.12 feet to an iron pipe; thence South 89 degrees 45 minutes 51 seconds East, 1,367.93 feet; thence North 73 degrees 33 minutes 46 seconds East, 189.61 feet to the point of beginning of the property herein described; thence North 37 degrees 23 minutes 32 seconds East, 97.75 feet; thence North 20 degrees 06 minutes 28 seconds West, 36.76 feet; thence North 31 degrees 00 minutes 18 seconds East, 128.11; thence in a Northeasterly direction along a curve to the left having an arc length of 11.23 feet (chord bearing of North 0 degrees 46 minutes 43 seconds West); thence in a Northeasterly direction along a curve to the right having an arc length of 105.34 feet (chord bearing of North 12 degrees 32 minutes 55 seconds East); thence North 62 degrees 50 minutes 33 seconds East, 17.91 feet; thence North 62 degrees 50 minutes 33 seconds East, 34.04 feet; thence North 52 degrees 46 minutes 09 seconds East, 74.91 feet; thence South 76 degrees 05 minutes 17 seconds East, 57.86 feet; thence North 60 degrees 38 minutes 03 seconds East, 82.25 feet; thence North 42 degrees 33 minutes 37 seconds East, 86.48 feet; thence North 56 degrees 14 minutes 31 seconds East, 54.23 feet; thence South 70 degrees 32 minutes 30 seconds East, 54.54 feet; thence North 12 degrees, 28 minutes 47 seconds East, 70.47 feet; thence North 34 degrees 13 minutes 05 seconds East, 47.47 feet; thence North 08 degrees 58 minutes 05 seconds East, 94.39 feet; thence North 14 degrees 40 minutes 39 seconds East, 58.49 feet; thence North 16 degrees 21 minutes 15 seconds West, 24.22 feet; thence North 70 degrees 08 minutes 15 seconds West, 27.83 feet; thence North 44 degrees 48 minutes 36 seconds West, 75.32 feet; thence North 39 degrees 36 minutes 04 seconds West, 128.29 feet to the edge of Country Club Lake at normal pool elevation of 218.00 mean sea level; thence along the edge of said Country Club Lake the following courses and distances: South 70 degrees 15 minutes 07 seconds East, 7.48 feet; North 89 degrees 32 minutes 56 seconds East, 22.14 feet, North 18 degrees 49 minutes 27 seconds West, 57.31 feet; thence South 40 degrees 15 minutes 16 seconds East, 163.15 feet; thence South 38 degrees 25 minutes 52 seconds East, 53.06 feet; thence South 65 degrees 16 minutes 43 seconds East, 44.45 feet; thence South 08 degrees 45 minutes 17 seconds East, 59.11 feet; thence South 13 degrees 58 minutes 04 seconds West, 53.76 feet; thence South 08 degrees 38 minutes 25 seconds West, 102.42 feet; thence South 36 degrees 04 minutes 34 seconds West, 48.73 feet; thence South 12 degrees 28 minutes 47 seconds West, 99.25 feet; thence North 70 degrees 32 minutes 30 seconds West, 76.64 feet; thence South 57 degrees 55 minutes 04 seconds West, 32.21 feet; thence South 42 degrees 10 minutes 44 seconds West, 90.35 feet; thence South 60 degrees 38 minutes 03 seconds West, 93.09 feet; thence North 78 degrees 09 minutes 14 seconds West, 56.87 feet; thence South 53 degrees 12 minutes 44 seconds West, 67.84 feet; thence South 62 degrees 55 minutes 17 seconds West, 43.23 feet; thence South 55 degrees 55 minutes 26 seconds West, 8.45 feet; thence in a Southwesterly direction along a curve to the left having arc length of 57.68 feet (chord bearing of South 07 degrees 45 minutes 51 seconds West); thence in a Southeasterly direction along a curve to the right having an arc length of 34.17 feet (chord bearing of South 08 degrees 09 minutes 17 seconds East); thence

South 31 degrees 00 minutes 18 seconds West, 125.34 feet; thence South 17 degrees 15 minutes 23 seconds East, 36.52 feet; thence South 32 degrees 38 minutes 12 seconds West, 97.06 feet; thence North 78 degrees 07 minutes 47 seconds West 38.90 feet the point of beginning; said property containing 1.0 acre, more or less.

Together with an easement for the purpose of traversing by any means any portion of the above described section of Mineral Creek.

Together with the right of way and easement for the purpose of ingress and egress, on, over and across the earthen dam end spillway of the Country Club Lake Estates Lake adjacent to the said property which right of way and easement is more particularly described as follows, to-wit:

Ingress-Egress Easement

A part of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi being more particularly described as a strip of land 20 feet in width lying to feet on either side of the following described centerline: Commence at the Northwest Corner of Country Club Lake Estates First Addition, said point also being the Northwest Corner of Lake Estates Drive; thence South 03 degrees 12 minutes West, 34.60 feet to the point of beginning of the easement herein described; thence South 84 degrees 23 minutes 36 seconds West 43.88 feet; thence South 66 degrees 32 minutes 24 seconds West, 62.98 feet; thence South 58 degrees 21 minutes 16 seconds West, 74.51 feet; thence South 69 degrees 13 minutes 23 seconds West, 60.85 feet; thence 75 degrees 09 minutes 59 seconds West, 56.56 feet; thence South 81 degrees 33 minutes 05 seconds West, 50.02 feet; thence South 85 degrees 01 minute 41 seconds West, 50.17 feet; thence South 89 degrees 39 minutes 00 seconds West, 671.44 feet to the end of said easement; said Easement containing 0.49 acres, more or less.

AND ALSO, LESS AND EXCEPT:

A part of Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, containing 6.26 acres, more or less, and particularly described as follows: Begin at the Southwest Corner of Lot 127 of Country Club Lake Estates 3rd Addition as per the official plat of such addition on file in the Forrest County Chancery Clerk's Office; thence run South 21 degrees 47 minutes 54 seconds West along the western end of Lake Estates Drive, a public road, 17.34 feet; thence run North 67 degrees 56 minutes 39 seconds West 713.78 feet; thence run North 70 degrees 03 minutes 21 seconds West, 296.37 feet; thence run South 89 degrees 45 minutes 51 seconds East, 692.16 feet; thence run North 60.41 feet to the edge of Country Club Lake; thence run in a Northerly and Easterly direction along the edge of said Country Club Lake, which is defined as mean sea level elevation of 218.00 feet, a distance of 916.5 feet, more or less, to an iron pipe; thence run South 31 degrees 59 minutes, 12 seconds West 319.08 feet; thence run South 11 degrees 16 minutes 48 seconds West 173.55 feet back to the point of beginning.

AND ALSO, LESS AND EXCEPT:

A part of the Northwest Quarter of the Southeast Quarter (NW ¼ of the SE ¼) and a part of the Southwest Quarter of the Northeast Quarter (SW ¼ of the NE ¼) of Section 34, Township 5 North, range 14 West, in the County of Forrest, State of Mississippi, and more particularly described as follows, to-wit:

Beginning at the southwesternmost corner of Lot 127, Block 10 of the Country Club Lake Estates 3rd Addition, in the County of Forrest, State of Mississippi, as per the map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi, in Plat Book 11 at Page 24, thence North 12 degrees 4 minutes East for a distance of 174.0 feet; thence North 32 degrees 40 minutes East for a distance of 319.22 feet; thence South 42 degrees 16 minutes 30 seconds East for a distance of 193.48 feet; thence South 38 degrees 1 minute West for a distance of 52.75 feet; thence South 50 degrees 19 minutes West and along the westerly line of above said Lot 127 for a distance of 398.4 feet to the southwesternmost corner of above said Lot 127 and the point of beginning; together with all improvements thereon and appurtenances thereunto belong.

AND ALSO, LESS AND EXCEPT:

A strip of land 40 feet wide lying East or right of the centerline of proposed State Aid Project No. SAP 18(36) and being in Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, and being more particularly described as follows:

Begin at Sta. 10+00 and run N01°05'16"E and along the said centerline for 171.70 feet to Sta. 11+71.70 said point also being the point of curvature having a central angle of 03°07'53" to the right and a radius of 2,864.79 feet; thence, continue along the said centerline curve for 156.57 feet to Sta. 13+28.27 said point also being the point of tangency of said curve; thence run N04°13'09"E and along said centerline for 171.73 feet to Station 15+00. Said parcel of land contains 0.46 acre, less and except 0.21 acre now being utilized and maintained as a county road.

AND ALSO, LESS AND EXCEPT:

A strip of land 30 feet wide lying 40 feet East or right and 40 feet West or left of proposed State Aid Project No. SAP 18(36) and being in Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, and being more particularly described as follows:

Begin at Sta. 15+00 and run N04°13'09"E and along said centerline for 368.66 feet to Sta. 16+96.93 said point being the point of curvature having a central angle of 04°11'04" to the left and a radius of 2,864.79 feet; thence continue along said centerline of curve for 209.22 feet to Sta. 19+06.15 said point also being the point of tangency; thence run N00°02'05"E and along said centerline for 4416.85 feet to Sta. 63+23 said point being the North line of said Section 34; Said parcel of land contains 8.86 acres, less and except 1.01 acres now being utilized and maintained as a county road.

AND ALSO, LESS AND EXCEPT:

LEGAL DESCRIPTION:

A parcel of land located in the SW ¼ of the SE ¼, Section 34, Township 5 North, Range 14 West, Forrest County, Mississippi, having bearings based upon Grid North derived from GPS observations and referenced to Mississippi State Plane Coordinate System (East Zone, NAD 83), with a convergence angle of (-)00°17'19.15" and using grid distances with a combined factor of 0.999984384 (determined at the Point of Beginning) and being more particularly described as follows:

Commence at an iron pin found at the Northwest Corner of Section 34, Township 5 North, range 14 West, Forrest County, Mississippi, thence run South 4,665.92 feet; thence run East 3,289.72 feet to iron pin found at the SW corner of property described in Deed Book 987, Page 327 as recorded on file at the Chancery Clerk's office of Forrest County, also being the Point of Beginning; thence run along the south line of said parcel North 89°55'08" East for 250.28 feet to an iron pin set on the west right-of-way line of Lake Estates Drive; thence run along said right-of-way for the following calls; thence run South 15°08'21" East for 22.53 feet to an iron pin found; thence run South 01°00'21" West for 216.67 feet to an iron pin set; thence leaving said right-of-way, run South 89°16'18" West along the North line of property described in Deed Book 1314, Page 414 to an iron pin found; thence run North 00°33'57" West for 241.22 feet back to the Point of Beginning. Said parcel contains 1.39 acres, more or less.

FORREST COUNTY, MS. LANCE C. REID
I CERTIFY THIS INSTRUMENT WAS FILED ON 11/21/2024 2:44:48 PM AND RECORDED IN DEED BOOK: 1460 PAGE: 685



Memorandum

To: Mayor Toby Barker and Members of City Council

From:

cc:

Date: Tuesday, March 18, 2025

Re: Accept the Board of Adjustment's recommendation to approve variance requests made by LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant, for a property located at 3509 Hardy Street (PPIN 23227, Ward 1, Forrest County).

Requested Variances:

- The requirement of active use of the drive-through area to be no closer than 300ft to a lot containing a legal, conforming residential use to instead allow for 260ft (LDC 5.4.36.4),
- The requirement of Drive-through facilities located closer than 300 feet to a residential to operate no earlier than 6:00 a.m. or later than 12:00 a.m. to instead allow for operation at 5:30am (LDC 5.4.36.3).

File Number: 2025-217
Minute Book #

Summary

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.

March 2025 BOA Item: A

Drive Thru Buffer and Operating Time Variances

LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant



**URBAN
DEVELOPMENT
PLANNING DIVISION**

**Board of Adjustment
Case Fact Sheet**

Names of Petitioner: LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant

Address of Property:
3509 Hardy Street

Tax Parcels
2-028L-07-174.00

PPIN:
23227

Ward:
1

Request: Drive Thru Buffer and Operating Time Variances

Purpose of Request: LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant, request a variance from the requirement of active use of the drive-through area to be no closer than 300ft to a lot containing a legal, conforming residential use to instead allow for 260ft (LDC 5.4.36.4), and a variance from the requirement of Drive-through facilities located closer than 300 feet to a residential to operate no earlier than 6:00 a.m. or later than 12:00 a.m. to instead allow for operation at 5:30am (LDC 5.4.36.3) for a property located at 3509 Hardy Street (PPIN 23227, Ward 1, Forrest County).

History / Background: The applicants met with staff in Pre-Application meetings to discuss a second proposed location for a 7 Brew Coffee Shop. The applicants are proposing the demolition of the former "Raising Cane's" building and the construction of a new 7 Brew Coffee at 3509 Hardy Street. Staff reviewed the required design standards and regulations from the Land Development Code and discussed the variances the applicants plan to seek.

The proposed active area of the drive-thru is located closer than 300 ft to residential properties. Two apartment

March 2025 BOA Item: A

Drive Thru Buffer and Operating Time Variances

LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant

complexes are located within the 300ft buffer, prohibiting the drive-through component without legislative relief. The applicants are also requesting to operate outside of the allowable times for drive-through facilities with residential properties within the 300-ft buffer, to open 30 minutes earlier than what is allowed (05:30 instead of 06:00).

This quick-service restaurant primarily targets vehicular traffic, where there will be no indoor dining options. The applicants proposed a potential walk-up window addition for this location, as this location is in an area the City desires for more pedestrian-friendly development and infrastructure. As part of the redevelopment of this site, the city is also requiring an 8-ft sidewalk along the Hardy Street frontage. This portion of Hardy Street is also within MDOT's Right-of-way. Any improvements, including curb-cut access modification, will need to be permitted by MDOT.

The Board of Adjustment should consider the impact a drive-through has on neighboring residential properties including sound, smell, as well as visual impact. Additionally, drive-throughs will add an increase in vehicular traffic to this corridor. Traffic maneuvers should also be considered at this location as well given the existing drive-through restaurants along this corridor.

The Board of Adjustment should also consider the implications of an additional drive-through on this commercial corridor. There are currently 9 restaurants with active drive-throughs, and 10 additional drive-through facilities from the I-59 interchange and the start of the Form-Based Code Districts/University of Southern Mississippi. Drive-throughs create challenges in creating pedestrian-friendly environments. As the City of Hattiesburg grows and expands to accommodate new businesses, the Board of Adjustments should consider the impact that individual site design plays within a larger context for the overall benefit of the city and all modes of transportation.

Applicant Summary: See Attached

Applicable Regulations:

March 2025 BOA Item: A

Drive Thru Buffer and Operating Time Variances

LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant

SECTION 4 Zoning Districts Established

4.5.10 B-3 Community Business District: The purpose of the B-3 District is to provide for retail, personal service, and offices in locations with convenient access to the community consistent with comprehensive planning policies. This district is consistent with the Community Business District in the Comprehensive Plan.

SECTION 6

Dimensional Standards and Measurements

6.1 District Dimensions and Standards

Table 6.1 Dimensional Standards										
District	Minimum Lot Size in SF/ Width at Setback	Max. Dwelling Units	Max. Floor Area Ratio	Setbacks in feet				Max. Height*	Max. Impervious Surface Lot Coverage	Buffer in Feet
				Min. Front	Max. Front	Min. Side	Min. Rear			
B-3	No minimum/ 100	-	1.00	30	-	0 or 10	0	40 feet or 3 stories	80%	30

SECTION 5

Use Regulations

5.4.36 Restaurants With and Without Drive-Through Service.

5.4.36.3 Drive-through facilities located closer than 300 feet to a residential use shall operate no earlier than 6:00 a.m. or later than 12:00 a.m.

5.4.36.4 No part of the active use area of a drive-through restaurant, including the drive through, menu, and window, may be located closer than 300 feet to a lot containing a legal, conforming residential use

Present Zoning: B-3 Community Business

Present Use: Vacant

Future Land Use: Community Business Corridor

Surrounding Zoning

March 2025 BOA Item: A

Drive Thru Buffer and Operating Time Variances

LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant

and Land Use: North: B-2 Neighborhood Business
South: B-3 Community Business
East: B-2 Neighborhood Business
West: B-3 Community Business

Letters or

Concerns stated:

The Planning Division Office has not received any letters or other written communications regarding this case as of finalizing this report.

Option:

Recommend approval or denial of the variance from the requirement of active use of the drive-through area to be no closer than 300ft to a lot containing a legal, conforming residential use to instead allow for 260ft (LDC 5.4.36.4), and a variance from the requirement of Drive-through facilities located closer than 300 feet to a residential to operate no earlier than 6:00 a.m. or later than 12:00 a.m. to instead allow for operation at 5:30am (LDC 5.4.36.3) for a property located at 3509 Hardy Street (PPIN 23227, Ward 1, Forrest County).

Basis for Approval (12.4.1.1):

Approval Criteria. A variance is not a right, but a privilege that property owners meeting the following criteria may request. These criteria are to be used to consider all variance requests. It shall be the burden of the applicant to prove that the request meets these criteria:

I. Hardship.

- The hardship is unique to the property and is not or will not be caused by the actions or inactions of the applicant.
- There are exceptional conditions creating an undue hardship applicable only to the property involved or the intended use which do not apply generally to the other land areas or uses within the same zoning district.

II. Special Privilege. A variance shall not confer any special privilege that is denied to other lands or structures in the same zoning district.

III. Literal Interpretation. The literal interpretation of the provisions of the regulations would deprive the applicant of

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Drive Thru Buffer and Operating Time Variances

LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant

rights commonly enjoyed by other properties in the same zoning district and would cause unnecessary and undue hardship on the applicant.

IV. Reasonable Use. The applicant cannot make reasonable use of the property without the requested variance.

V. Minimum Required. The granting of a variance is the minimum variance that will make possible the reasonable use of the land or structure.

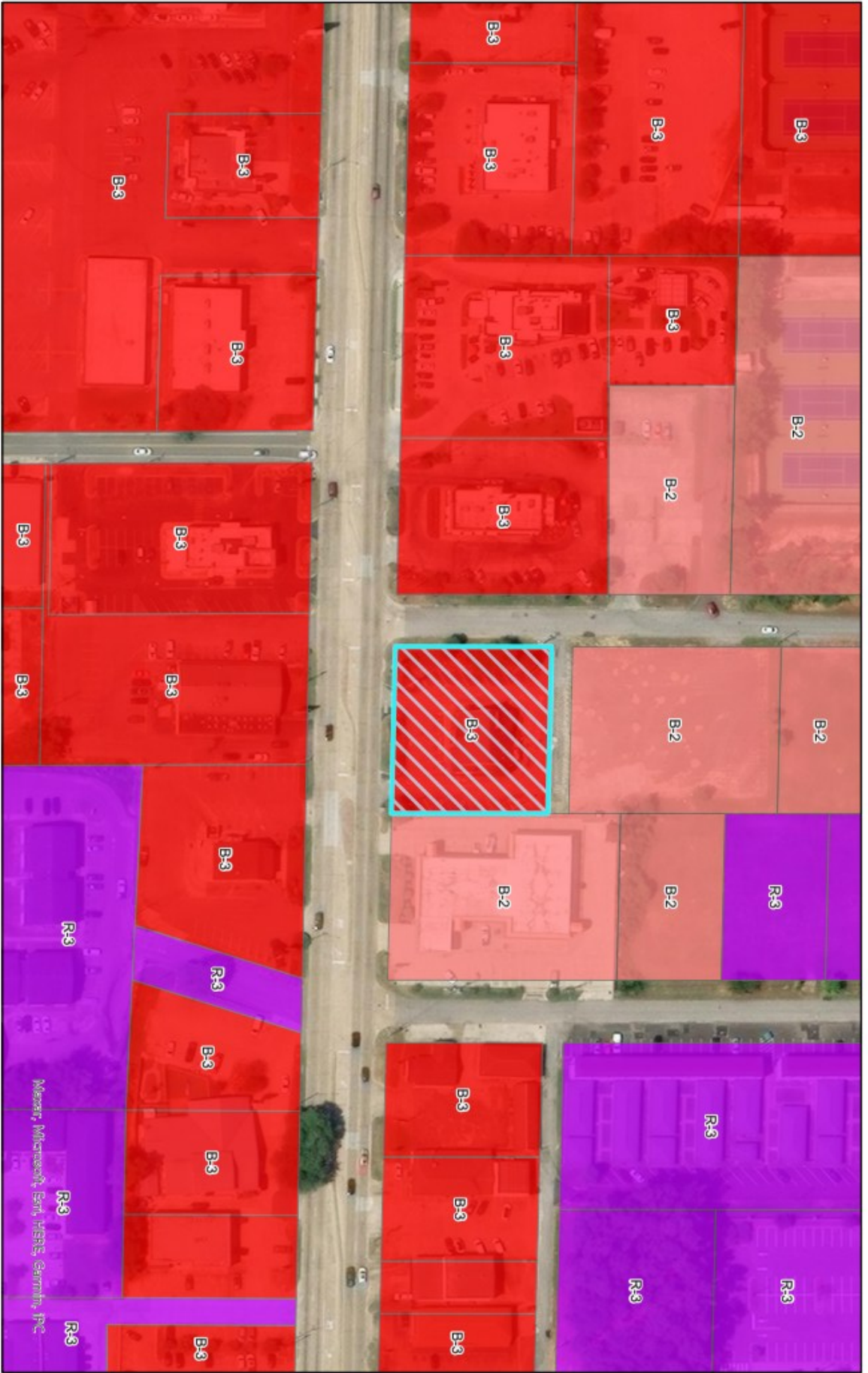
VI. Conformance with the Purposes of this Code. The granting of a variance will not conflict with the purposes and intent expressed or implied in the Land Development Code.

SUBJECT PARCEL

3509 Hardy Street — Variance Requests

LB Interests, LLC, Property Owner/Applicant, Brew Crew MS, LLC, Applicant, and Brian Evens, Applicant, request a variance from the requirement of active use of the drive-through area to be no closer than 300ft to a lot containing a legal, conforming residential use to instead allow for 260ft (LDC 5.4.36.4), and a variance from the requirement of Drive-through facilities located closer than 300 feet to a residential to operate no earlier than 6:00 a.m. or later than 12:00 a.m. to instead allow for operation at 5:30am (LDC 5.4.36.3) for a property located at 3509 Hardy Street (PPIN 23227, Ward 1, Forrest County).





Zoning Map

-  Subject Property
-  B-2
-  R-3

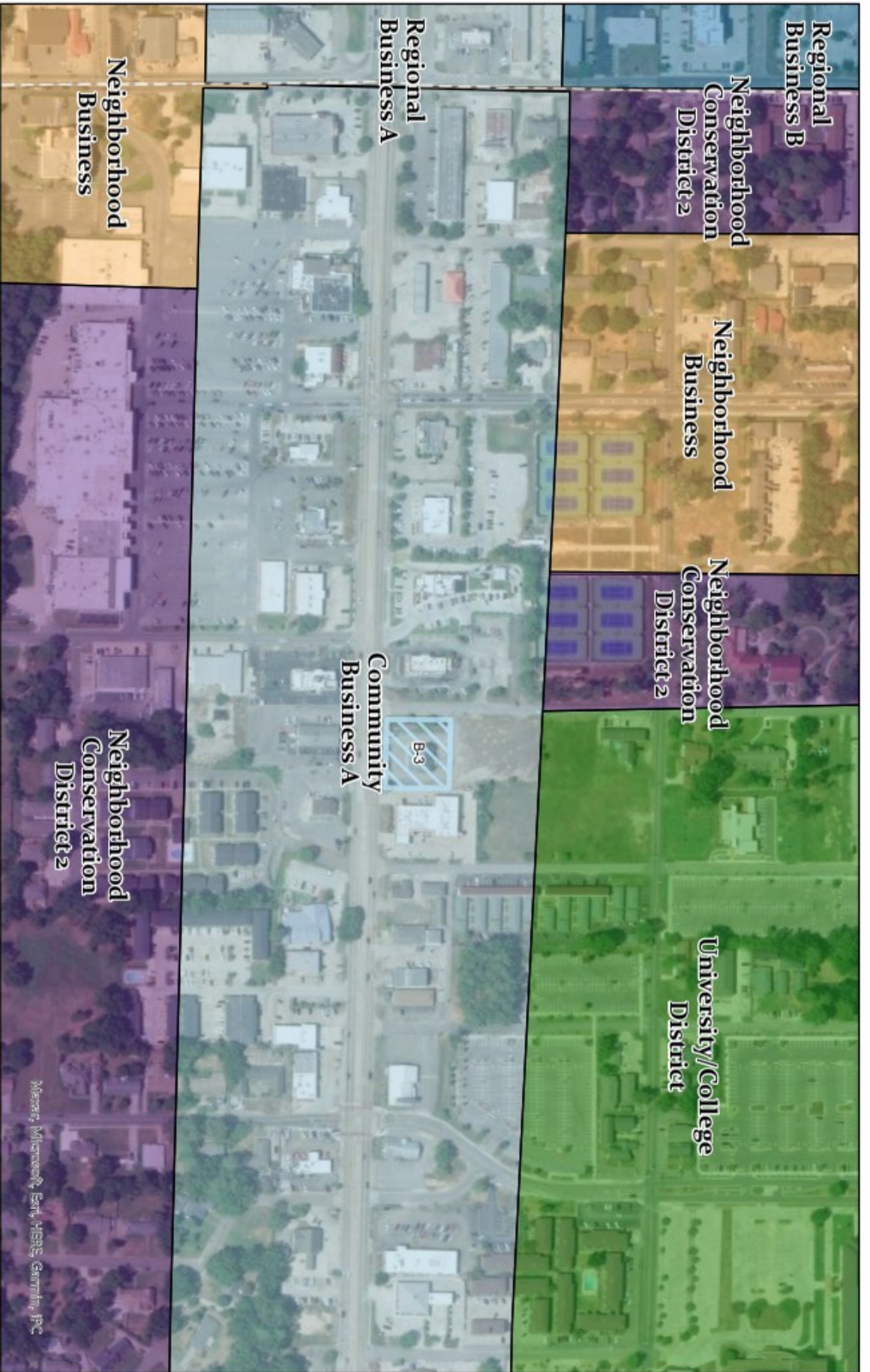
Variance Request for Drive-through Buffer
3509 Hardy Street
PPIN: 23227
Flood Zone: X
Ward 1, Forrest County



**URBAN
DEVELOPMENT**
PLANNING DIVISION

DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data.
This information CANNOT be used as a substitute for legal, business, tax or other professional advice.
Map Exported on: 2/10/2025 4:45 PM

Center: 89°20'35"W 31°19'30"N



- Future Land Use Map**
- Subject Property
 - Community Business A
 - Neighborhood Business
 - Neighborhood Conservation District 2

Variance Request for Drive-through Buffer
3509 Hardy Street
PPIN: 23227
Flood Zone: X
Ward 1, Forrest County



URBAN DEVELOPMENT
PLANNING DIVISION
Center: 89°20'36"W 31°19'31"N

DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data.
This information CANNOT be used as a substitute for legal, business, tax or other professional advice.
Map Exported on: 2/10/2025 4:48 PM

Site Aerial



Surrounding Area



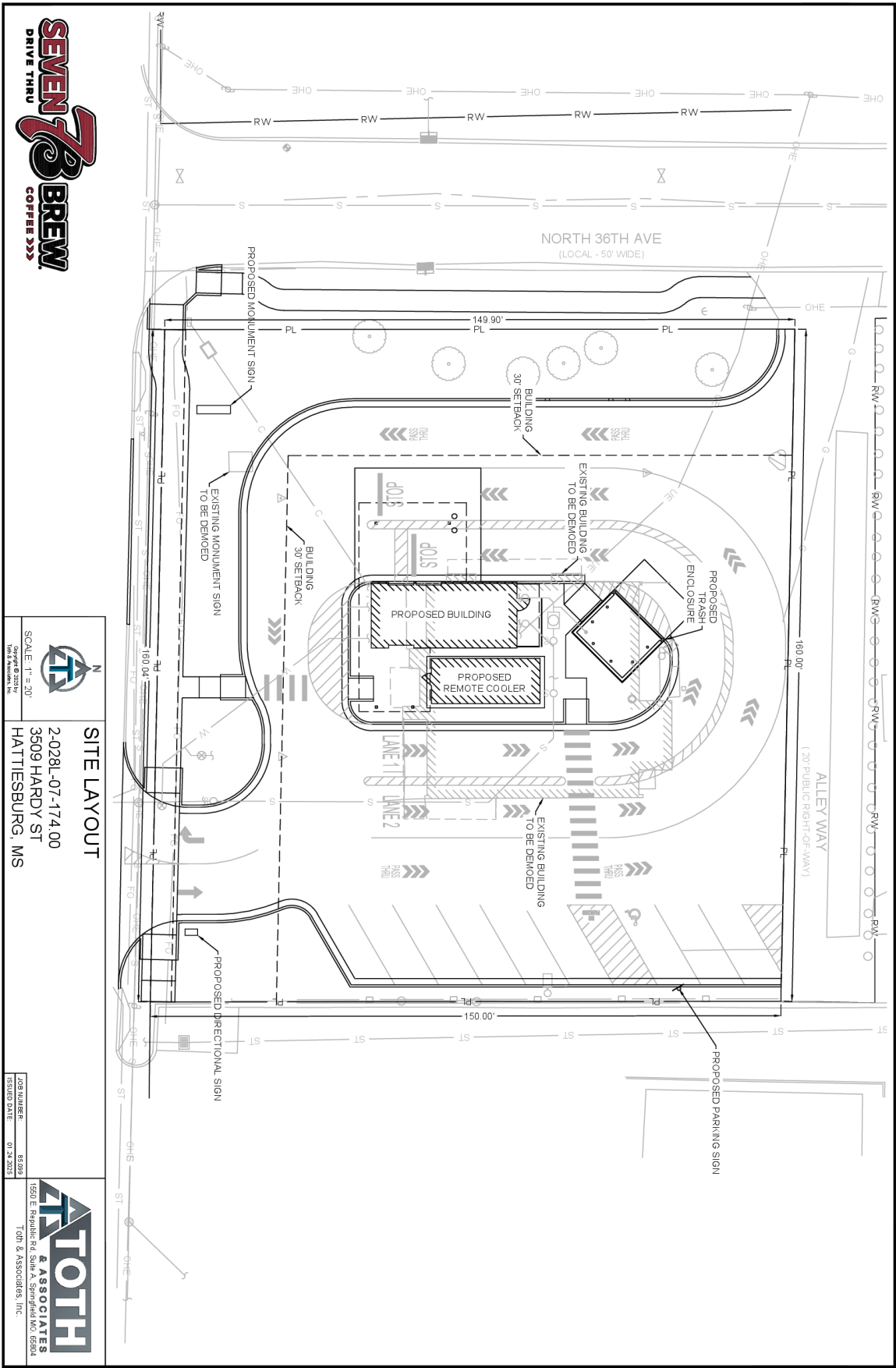
Surrounding Area



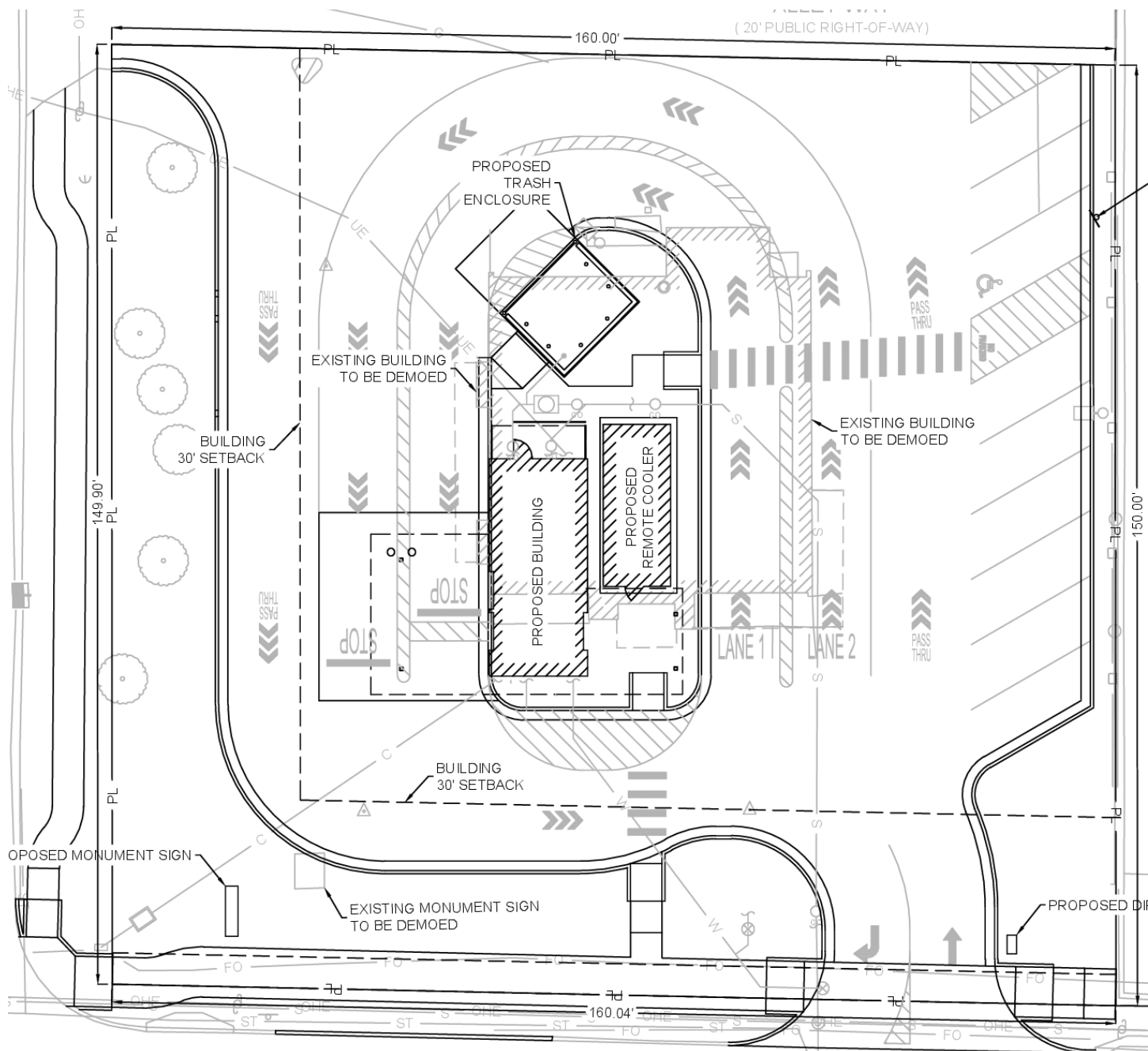
Surrounding Area



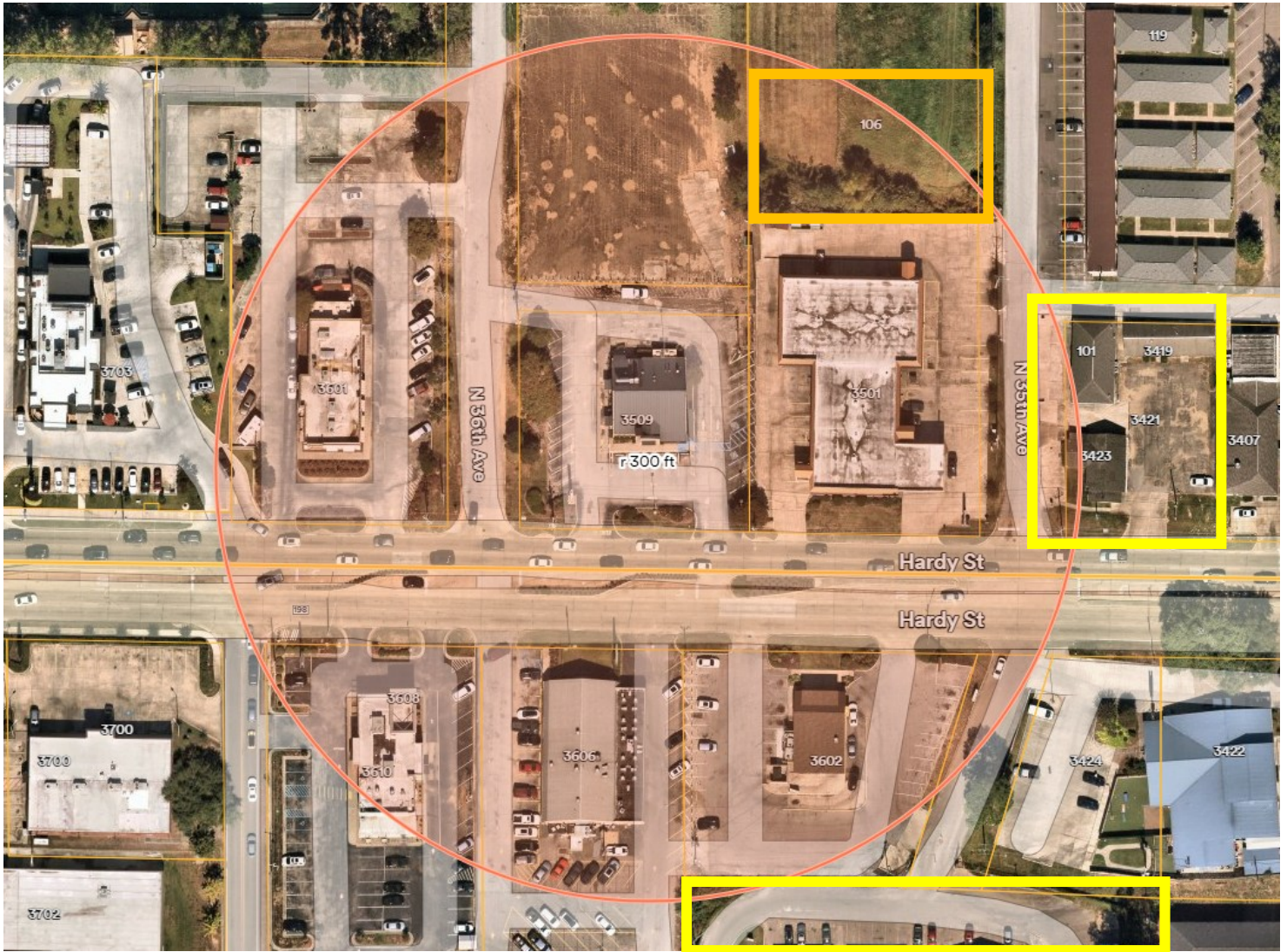
Proposed Site Plan



Proposed Site Plan (Focused)



Proposed Site Plan (Focused)



**Active Residential properties within
the 300 ft buffer**



**Undeveloped Residential properties
within the 300 ft buffer**





URBAN DEVELOPMENT PLANNING DIVISION

Public Hearing Application

P.O. BOX 1898 (200 Forrest Street/39401)

Hattiesburg, MS 39403-1898

Department of Urban Development

(601) 545-4599 or FAX (601) 545-1962

APPLICANT:

Applicant Name: Brew Crew MS, LLC

Project Name: 7 Brew Coffee

Proposed Use(s): Coffee Shop

Project Street Address: 3509 Hardy Street

PPIN Number(s) (if unknown, can be found on tax receipt): 23227

PLEASE BE SURE TO FILL OUT PP. 1-5 AND SEE FEES ON P. 6

Application for (check all appropriate types):

- | | |
|---|--|
| ☒ Variance (see below) | ☐ Conditional Use (see below) |
| ☐ Subdividing of Lot, Parcel, or Tract (see p. 12) | ☐ Re-Zoning (see below) |
| ☐ Street or Alley Renaming (see pp. 13-14) | ☐ Overlay District |
| ☐ Vacating Street or Alley (see pp. 13-14) | ☐ Planned Mixed-Use District |

For Variance Only (check all appropriate variance types), see pp. 7 & 8:

- | | | |
|---|---|---|
| ☐ Sign | ☐ Setback (front, side, or rear _____) | ☐ Off-Site Parking |
| ☐ Lot Width | ☐ Lot Coverage Area | ☐ Buffer |
| ☐ Lot Coverage Area | ☐ Buffer | ☐ Open Space |
| ☒ Other: <u>5.4.36.3 and 5.4.36.4</u> | | |

For Conditional Use Permit Only (check applicable type), see pp. 9 & 10:

- | | |
|---|---|
| ☐ Automotive Filling Station | ☐ Telecommunications |
| ☐ Digital Billboard, New | ☐ Digital Billboard, Replacement |
| ☐ Restaurant | ☐ Solar Farm |
| ☐ Other: _____ | |

For Re-Zoning Only, see p. 11:

Existing Zoning: _____

Proposed Zoning: _____

STAFF USE ONLY – Do Not Complete:

Pre-Application Date: _____ Planner: _____

Parcel Number(s): _____ Historic District(s): _____

Flood Zone(s): _____ Zoning District(s): _____

Project No.: _____

Code Sections:

LDC Section No. _____

Section No. _____

Section No. _____

Section No. _____

Section No. _____

RECIVED DATE & INITIALS:

OWNER AFFIDAVIT PAGE

THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE OWNER(S) OF
THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the OWNER(s) of the subject property located at

3509 Hardy St Hattiesburg MS
Street Address City State

on this the 27th day of January, 20 25.

In the matter of this request, the property owner further authorizes the following named person(s)
to represent them at the public hearing on this petition.

Brew Crew MS, LLC
on this the 27th day of January, 20 25.

Robert Daigrept, Jr.
Property Owner (print)

[Signature]
Property Owner (signature)

STATE OF Louisiana
COUNTY OF E. Baton Rouge

Personally came and appeared before me, the within named

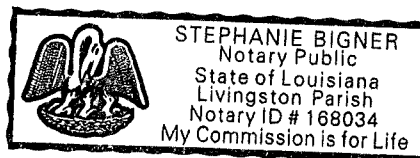
Robert Daigrept Jr,
who signed and delivered the above and foregoing instrument as and for their free act and deed on
the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the
subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 27th day of
January, 20 25.

Stephanie Bigner
NOTARY PUBLIC

My Commission Expires:

Life



APPLICANT AFFIDAVIT PAGE

THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE **APPLICANT** OF THIS PETITION, **ONLY** IF DIFFERENT FROM THE OWNER(S) OF THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the **APPLICANT(s)** of the subject property located
at
3509 Hardy Street Hattiesburg PA
Street Address City State
on this the 24th day of January, 2025.

Brian Evans

Applicant (print)



Applicant (signature)

STATE OF Kentucky
COUNTY OF Oldham

Personally came and appeared before me, the within named

Brian Evans
who signed and delivered the above and foregoing instrument as and for their free act and deed on the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 24th day of January, 2025.

Theresa M. Whalen
NOTARY PUBLIC

Theresa M. Whalen
NOTARY PUBLIC Id KYNP57202
State at Large Kentucky
My Commission Exp. August 27, 2026

My Commission Expires:

August 27, 2026.

FOR VARIANCE APPLICANTS:

The Board of Adjustment has the responsibility to hear and make recommendation on requests for variances to the requirements of this Code (per Section 11.4). **Section 12.4.1** Variances are departures from the standards of the Land Development Code, except land use, which will not be contrary to the public interest and where, owing to conditions peculiar to the property and not as a result of the action of the applicant, a literal enforcement of this Code would result in unnecessary and undue hardship.

The following conditions must be met before a variance can be recommended.

Approval Criteria.

A variance is not a right, but a privilege that property owners meeting the following criteria may request. These criteria are to be used to consider all variance requests. It shall be the burden of the applicant to prove that the request meets these criteria. Use this worksheet or format your own to demonstrate the following criteria.

1. **Hardship.** (a) the hardship is unique to the property and is not or will not be caused by the actions or inactions of the applicant. (b) There are exceptional conditions creating an undue hardship applicable only to the property involved or the intended use which do not apply generally to the other land areas or uses within the same zoning district.

Granting of the proposed variances will allow the proposed drive thru restaurant use to
locate closer than 300 feet to residential use and allow hours of operation to begin at 5:30 am instead
of 6:00 am. The proposed drive thru use does NOT have a traditional order board and speaker system.
Order are taken directly by Baristas face to face at the customers vehicle and not over a
speaker system like traditional drive thru establishments.

2. **Special Privilege.** A variance shall not confer any special privilege that is denied to other lands or structures in the same zoning district.

There are no other drive thru establishments that do not have a traditional order menu and
speaker system.

3. **Literal Interpretation.** The literal interpretation of the provision of the regulation would deprive the applicant of rights commonly enjoyed by other properties in the same zoning district and would cause unnecessary and undue hardship on the applicant.

Other restaurant properties that also do not use a traditional menu board and speaker system
are not held to these standards.

4. **Reasonable Use.** The applicant cannot make reasonable use of the property without the requested variance.

The proposed use is a drive thru only facility. Without the approved variances, the
business model does not work here.

5. **Minimum Required.** The granting of a variance is the minimum variance that will make possible the reasonable use of the land or structure.

Granting of the variances is the minimum relief necessary for the applicants proposed
use of the property

6. **Conformance with Purpose of this Code.** The granting of a variance will not conflict with the purposes and intent expressed or implied in the Land Development Code.

Since the proposed use does not use a speaker system for order, the granting of the
variances will still protect the residential uses from undue noises associated with
traditional drive thru establishments.

12.4.1.2 Conditions of Approval. In recommending the granting of a variance, the Board of Adjustment may require appropriate conditions and safeguards in conformity with this Code. Violation of such conditions and safeguards, when made a part of the terms under which a variance is granted, shall be deemed a violation of the Code. The recommendation of the Board Adjustment shall be presented to the City Council for final action.



Space Above Line for Official Use Only

Instrument Prepared by and Return To:	Grantor's Name, Address and Phone Number	Grantee's Name, Address and Phone Number:
Butler Snow LLP Attn: Corey A. Aiken MS Bar No.: 104444 Suite 1400 1020 Highland Colony Parkway Ridgeland, Mississippi 39157 (601) 948-5711	Raising Cane's Restaurants, L.L.C. Attn: Real Estate Department 6800 Bishop Rd Plano, TX 75024 (469) 863-4499	LB Interests, L.L.C. Attn: Robert Daigrepoint, Jr. 910 S Acadian Thruway Baton Rouge, LA 70806 (225) 927-3760
Indexing Instructions to the Chancery Clerk of Forrest County, Mississippi: Lots 4, 5, and 6 in Block 26 of the Pine Crest Second Survey of the City of Hattiesburg, Forrest County, Mississippi, as per the map or plat thereof on file and of record in the Office of the Chancery Clerk of Forrest County, Mississippi.		

SPECIAL WARRANTY DEED

FOR AND IN CONSIDERATION of the sum of Ten and No/100 Dollars (\$10.00), cash in hand paid, and other good and valuable consideration, the receipt, adequacy and sufficiency of all of which is hereby acknowledged, **RAISING CANE'S RESTAURANTS, L.L.C.**, a Louisiana limited liability company (the "Grantor"), does hereby sell, convey and warrant specially unto **LB INTERESTS, L.L.C.**, a Louisiana limited liability company (the "Grantee"), the property (the "Property") lying and being situated in the City of Hattiesburg, Forrest County, Mississippi, and being more particularly described on Exhibit A attached hereto.

The Property is conveyed subject to, and there is excepted from the special warranty of this conveyance, those certain liens, encumbrances and other matters set forth on Exhibit B attached hereto, and all applicable laws including zoning, building ordinances, and land use regulations that lawfully affect the Property or any part thereof.

Ad valorem taxes for the year 2022 have been prorated between the Grantor and the Grantee, and the Grantee assumes and agrees to pay the same when they become due and payable.

Grantor hereby covenants with Grantee that Grantor will warrant the title to the Property and will defend the same against the lawful claims of all persons claiming by, through, or under Grantor.

[Signature Page Follows]

WITNESS THE SIGNATURE OF THE GRANTOR, to be effective as of the 30th
day of September, 2022, although actually executed on the date set forth in the
acknowledgment below.

-GRANTOR-

RAISING CANE'S RESTAURANTS, L.L.C.

By: [Signature]
Bryan L. Brown, Chief Development Officer

STATE OF TX
COUNTY OF COLLIN

Personally appeared before me, the undersigned authority in and for the said county and
state, on this 28th day of SEPTEMBER, 2022, within my jurisdiction, the within named
Bryan L. Brown who proved to me on the basis of satisfactory evidence to be the person whose
name is subscribed in the above and foregoing instrument and acknowledged that she/he executed
the same in his representative capacity, and that by his/her signature on the instrument, and as the
act and deed of the entity upon behalf of which she/he acted, executed the above and foregoing
instrument, after first having been duly authorized so to do.

[Signature]
(NOTARY PUBLIC)

My Commission Expires:

6/23/25
[AFFIX NOTARIAL SEAL]



EXHIBIT A
Legal Description

Lots 4, 5, and 6 in Block 26 of the Pine Crest Second Survey of the City of Hattiesburg, Forrest County, Mississippi, as per the map or plat thereof on file and of record in the Office of the Chancery Clerk of Forrest County, Mississippi.

EXHIBIT B
List of Permitted Exceptions

1. Ad valorem taxes for the year 2022 and subsequent years which are not yet due and payable.
2. Any prior reservation or conveyance, together with release of damages, of minerals of every kind and character, including, but not limited to, oil, gas, sand and gravel in, on and under the Property.
3. Matters as shown on map or plat of Pine Crest Second Survey Addition to the City of Hattiesburg, Forrest County.
4. Easement to the City of Hattiesburg to dig, construct and maintain a Water Main recorded May 14, 1960 in Book 220 at Page 560.
5. Standard Form of Agreement between Owner and Contractor recorded April 25, 2006 in Book 1490 at Page 428.
6. Certificate of Substantial Completion recorded August 22, 2006 in Book 994 at Page 217.

65846894.v2

9589 0710 5270 1333 8693 47

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Thomasville, NC 27360

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☐ Certified Mail Restricted Delivery	\$0.00
☐ Adult Signature Required	\$0.00
☐ Adult Signature Restricted Delivery	\$0.00
Postage	\$0.73

\$9.68

COOK OUT-HATTIESBURG INC
15 LAURA LANE SUITE 300
THOMASVILLE, NC 27360

Postmark Here
JAN 24 2025
01/24/2025
69004

For Instructions

9589 0710 5270 1333 8693 30

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Hattiesburg, MS 39404

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Extra Services & Fees (check box, add fee as appropriate)	\$4.10
☐ Return Receipt (hardcopy)	\$0.00
☐ Return Receipt (electronic)	\$0.00
☐ Certified Mail Restricted Delivery	\$0.00
☐ Adult Signature Required	\$0.00
☐ Adult Signature Restricted Delivery	\$0.00
Postage	\$0.73

\$9.68

CYPPRESS PROPERTIES LLC
PO BOX 15609
HATTIESBURG, MS 39404

Postmark Here
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01/24/2025

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Hattiesburg, MS 39402

Certified Mail Fee	\$4.85
Extra Services & Fees (check box, add fee as appropriate)	\$4.10
☐ Return Receipt (hardcopy)	\$0.00
☐ Return Receipt (electronic)	\$0.00
☐ Certified Mail Restricted Delivery	\$0.00
☐ Adult Signature Required	\$0.00
☐ Adult Signature Restricted Delivery	\$0.00
Postage	\$0.73

\$9.68

ZHOU INVESTMENT LLC
15 NORTHSORE COURT
HATTIESBURG, MS 39402

Postmark Here
JAN 24 2025
01/24/2025

For Instructions

9589 0710 5270 1333 8693 78

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Hattiesburg, MS 39401

Certified Mail Fee	\$4.85
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☐ Return Receipt (electronic)	\$0.00
☐ Certified Mail Restricted Delivery	\$0.00
☐ Adult Signature Required	\$0.00
☐ Adult Signature Restricted Delivery	\$0.00
Postage	\$0.73

\$9.68

BAKER-HARDY REAL ESTATE LP
C/O MARTIN BAKER
202 HILLENDAL
HATTIEBURG, MS 39401

Postmark Here
JAN 24 2025
01/24/2025

For Instructions

9589 0710 5270 1333 8693 69

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Petal, MS 39465

Certified Mail Fee	\$4.85
Extra Services & Fees (check box, add fee as appropriate)	\$4.10
☐ Return Receipt (hardcopy)	\$0.00
☐ Return Receipt (electronic)	\$0.00
☐ Certified Mail Restricted Delivery	\$0.00
☐ Adult Signature Required	\$0.00
☐ Adult Signature Restricted Delivery	\$0.00
Postage	\$0.73

\$9.68

SHAI SAI LLC
106 MORRIS ST
PETAL, MS 39465

Postmark Here
JAN 24 2025
01/24/2025

For Instructions



Brew Crew MS, LLC | 7 Brew Franchisee | 3538 N Hwy 112, Suite 1 – Fayetteville, AR 72703

01/24/25

Via: Certified Mail

**Adjacent Property Owner of
3509 Hardy Street in
Hattiesburg, MS**

RE: 7 Brew Coffee – 3509 Hardy Street

Brew Team MS, LLC has filed an application with the City of Hattiesburg, Department of Urban Planning – Planning Division, for a variance request associated with the redevelopment of the property to a 7 Brew drive thru coffee shop. The Planning Division requires a letter of approval/denial from all adjoining property owners.

Brew Team MS, LLC is requesting two variances for the proposed project:

1. To allow a drive thru use to be located within 300 feet of a residential use
2. To allow the hours of operation to begin at 5:30am instead of 6:00am.

Variance application materials are on file with the Planning Division. You may request a copy from them at 601-545-4609, or I would be happy to provide copies of the submitted materials. A public hearing to discuss this project will be schedule at a later date.

I have included a simple form letter stating either your approval or denial of the requested variances that can either be mailed to the Planning Division or scanned and emailed to me and I will submit to them.

I am happy to answer any questions or concern that you may have about this request. Please feel free to contact me at brian.evans@7brewteam.com or 502-528-1798.

Best,

Brian Evans
Director of Entitlements

Enclosures



City of Hattiesburg
Department of Urban Development – Planning Division
200 Forrest St
Hattiesburg, MS 39401

RE: 7 Brew - 3509 Hardy Street
Drive Thru Variance Request

To Whom it May Concern,

The below Owner of an adjacent property to 3509 Hardy Street hereby ☐ Approves or ☐ Denies of
Brew Team MS, LLC's request for variances on the subject property.

Property Owner

Printed Name & Title

Signature

Date



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Nathan Satcher, Planner II, Wiley Quinn, Urban Development Director
cc: Ann Jones, Chief Administrative Officer
Date: Tuesday, March 18, 2025
Re: Adopt a Resolution approving the adoption and implementation of the 2025-2030 Regional Hazard Mitigation Plan. Prepared by the MEMA District 8 Regional Hazard Mitigation Council, which includes the counties of Covington, Forrest, Jefferson Davis, Jones, Marion, Perry, and Wayne.
File Number: 2025-173
Minute Book #

Summary

Review and adoption of the MEMA District 8 Regional Hazard Mitigation Plan for Adoption by the City of Hattiesburg. The 2025-2030 Regional Hazard Mitigation Plan is an update to the previously adopted 2020-2025 plan.

The MEMA District 8 Regional Hazard Mitigation Plan has been prepared in coordination with FEMA Region IV and the Mississippi Emergency Management Agency, District 8. Adoption of the plan allows the City of Hattiesburg to maintain grant eligibility for federal mitigation funds both before and after a disaster. The City may also receive credit through the Community Rating System for adopting the Hazard Mitigation Plan. The City of Hattiesburg held a work session on March 3, 2025, for public review until the adoption of the document.

Recommendation Statement

Please place this on the March 18, 2025 City Council meeting for consideration.

There came for consideration at a duly constituted meeting of the Mayor and Members of the City Council of the City of Hattiesburg, Mississippi, held on the **18th** day of **March 2025**, the following Resolution:

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY OF HATTIESBURG, MISSISSIPPI,
FOR THE ADOPTION OF THE
2025-2030 MEMA DISTRICT 8 REGIONAL HAZARD MITIGATION PLAN**

WHEREAS, various natural hazards pose a continuing threat to the lives, property, and welfare of the citizens of the City of Hattiesburg; and

WHEREAS, the implementation of hazard mitigation policies and strategies before disasters occur can protect citizens, significantly reduce the loss of life and property from natural hazards, and reduce the burden upon taxpayer dollars; and

WHEREAS, a concerted effort should be made to address hazard mitigation in the City of Hattiesburg's respective policies and programs; and

WHEREAS, hazard mitigation goals and objectives can be effectively developed through participation in the development of a regional mitigation plan; and

WHEREAS, the City of Hattiesburg has participated in the development of the 2025-2030 MEMA District 8 Regional Hazard Mitigation Plan (the "Plan") in collaboration with other jurisdictions to assess risks, identify vulnerabilities, and establish mitigation strategies from the impacts of natural hazards; and

WHEREAS, the Plan includes appendices and jurisdiction-specific sections that outline mitigation strategies, risk assessments, and action plans tailored specifically for the City of Hattiesburg;

WHEREAS, a public comment period from March 3rd to March 18th, 2025, was authorized by the City of Hattiesburg City Council for additional feedback and input on the plan before adoption;

NOW, THEREFORE, BE IT RESOLVED that the Mayor and City Council of the City of Hattiesburg:

1. Adopts in its entirety, the 2025-2030 MEMA District 8 Hazard Mitigation Plan in its entirety, along with the City of Hattiesburg-specific appendices, as the City's hazard mitigation framework.
2. Will use the adopted and approved portions of the Plan to guide pre- and post-disaster mitigation of the hazards identified.
3. Will coordinate the strategies identified in the Plan with other planning programs and mechanisms under its jurisdictional authority.

4. Will continue its support of the Hazard Mitigation Planning Committee as described within the Plan.
5. Will help to promote and support the mitigation successes of all participants in this Plan.
6. Will incorporate mitigation planning as an integral component of government and partner operations.
7. Will update and maintain the City-specific appendices as necessary to reflect new risks, changing conditions, and completed mitigation actions.
8. Will review and revise the Plan, including City-specific appendices, at least once every five years as required by FEMA regulations.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council Member _____, seconded by Council Member _____, and was adopted by the following vote, to wit:

YEAS:

NAYS:

ABSENT:

ABSTAIN:

The motion having received the affirmative vote of a majority of the Council members present, the President declared the motion carried and the resolution adopted, on this the **18th** day of **March 2025**

ATTEST:

Clerk of Council, City of Hattiesburg

ADOPTED:

City Council President

This the above and foregoing Resolution having been submitted to and approved by the mayor, this the **18th** day of **March 2025**.

ATTEST:

City Clerk, City of Hattiesburg

APPROVED:

City Council President

SECTION 1

INTRODUCTION

This section provides a general introduction to the MEMA District 8 Regional Hazard Mitigation Plan. It consists of the following five subsections:

- ✦ Background
- ✦ 1.2 Purpose
- ✦ 1.3 Scope
- ✦ 1.4 Authority
- ✦ 1.5 Summary of Plan Contents

1.1 BACKGROUND

Natural hazards, such as hurricanes, floods, and tornadoes, are a part of the world around us. Their occurrence is natural and inevitable, and there is little we can do to control their force and intensity. We must consider these hazards to be legitimate and significant threats to human life, safety, and property.

The *MEMA District 8 Region* is located in the southeastern part of Mississippi and includes the counties of Covington, Forrest, Greene, Jefferson Davis, Jones, Marion, Perry, and Wayne. This area is vulnerable to a wide range of natural hazards such as floods, drought, hurricanes, severe thunderstorms, and wildfires. It is also vulnerable to human-caused hazards, such as chemical releases, hazardous material spills, pipeline damage, meth houses, and cyberthreats. These hazards threaten the life and safety of residents in the *MEMA District 8 Region* and have the potential to damage or destroy both public and private property, disrupt the local economy, and impact the overall quality of life of individuals who live, work, and vacation in the *MEMA District 8 Region*.

While the threat from hazardous events may never be fully eliminated, there is much we can do to lessen their potential impact upon our community and our citizens. By minimizing the impact of hazards upon our built environment, we can prevent such events from resulting in disasters. The concept and practice of reducing risks to people and property from known hazards is generally referred to as ***hazard mitigation***.



FEMA Definition of Hazard Mitigation:

"Any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards."

Hazard mitigation techniques include both structural measures (such as strengthening or protecting buildings and infrastructure from the destructive forces of potential hazards) and non-structural measures (such as the adoption of sound land use policies and the creation of public awareness programs). It is widely accepted that the most effective mitigation measures are implemented at the local government level, where decisions on the regulation and control of development are ultimately made. A comprehensive mitigation approach addresses hazard vulnerabilities that exist today and in the foreseeable future. Therefore, it is essential that projected patterns of future development are evaluated and considered in terms of how that growth will increase or decrease a community's overall hazard vulnerability.

A key component in the formulation of a comprehensive approach to hazard mitigation is to develop, adopt, and update a local hazard mitigation plan as needed. A hazard mitigation plan establishes the broad community vision and guiding principles for reducing hazard risk, and further proposes specific mitigation actions to eliminate or reduce identified vulnerabilities.

Each of the eight counties participating in the development of the *MEMA District 8 Hazard Mitigation Plan* has an existing hazard mitigation plan that has evolved over the years, as described in *Section 2: Planning Process*. This regional plan draws from each of the county plans and documents the region's sustained efforts to incorporate hazard mitigation principles and practices into routine government activities and functions. At its core, the Plan recommends specific actions to minimize hazard vulnerability and protect residents from losses to those hazards that pose the greatest risk. These mitigation actions go beyond simply recommending structural solutions to reduce existing vulnerability, such as elevation, retrofitting, and acquisition projects. Local policies on community growth and development, incentives for natural resource protection, and public awareness and outreach activities are examples of other actions considered to reduce the *MEMA District 8 Region's vulnerability* to identified hazards. The Plan remains a "living document", with implementation and evaluation procedures established to help achieve meaningful objectives and successful outcomes over time.

1.1.1 The Disaster Mitigation Act and the Flood Insurance Reform Act

In an effort to reduce the Nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000 (DMA 2000) in order to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Section 322 of DMA 2000 emphasizes the need for state and local government entities to closely coordinate on mitigation planning activities and makes the development of a hazard mitigation plan a specific eligibility requirement for any local government applying for federal mitigation grant funds. These funds include the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation (PDM) program, both of which are administered by the Federal Emergency Management Agency (FEMA) under the Department of Homeland Security. Communities with an adopted and federally-approved hazard mitigation plan thereby become pre-positioned and more apt to receive available mitigation funds before and after the next disaster strikes.

The Flood Insurance Reform Act of 2004 (P.L. 108-264) created two new grant programs, Severe Repetitive Loss (SRL) and Repetitive Flood Claim (RFC), and modified the existing Flood Mitigation Assistance (FMA) program. One of the requirements of this Act is that a FEMA-approved Hazard Mitigation Plan is now required if communities wish to be eligible for these FEMA mitigation programs. However, as of mid-2013, guidance has not been released for the RFC and SRL programs and it is likely that these programs will be folded into a single, unified FMA program.

In addition, major federal flood insurance legislation was passed in 2012 under the Biggert-Waters Flood Insurance Reform Act (P.L. 112-141). This act made several changes to the way the National Flood Insurance Program is to be run, including raises in rates to reflect true flood risk and changes in how Flood Insurance Rate Map (FIRM) updates impact policyholders.

The *MEMA District 8 Regional Hazard Mitigation Plan* has been prepared in coordination with FEMA Region IV and the Mississippi Emergency Management Agency (MEMA) to ensure that the Plan meets all applicable FEMA and state requirements for hazard mitigation plans. A Local Mitigation Plan Review Tool, found in Appendix C, provides a summary of federal and state minimum standards and notes the location where each requirement is met within the Plan.

1.1.2 Building Resilient Infrastructure and Communities (BRIC)

FEMA's Building Resilient Infrastructure and Communities (BRIC) competitive annual grant program supports state, local, tribal, and territorial governments as they implement hazard mitigation projects to reduce the risks from disasters and natural hazards. The program is authorized by the Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

The BRIC program aims to categorically shift the federal focus away from reactive disaster spending and toward proactive investment in community resilience. FEMA funds BRIC with a 6% set-aside from federal post-disaster grant funds, such as Public Assistance and Individual Assistance grants. As a competitive grant program, applicants can apply on a yearly basis.

FEMA's priorities for the FY 2022 BRIC program are to:

- 1) Incentivize natural hazard risk reduction activities that mitigate risk to public infrastructure and disadvantaged communities as referenced in Executive Order 14008 – Tackling the Climate Crisis at Home and Abroad;
- 2) Incorporate nature-based solutions, including those designed to reduce carbon emissions;
- 3) Enhance climate resilience and adaptation;
- 4) Increase funding for the adoption and enforcement of the latest published editions of building codes; and
- 5) Encourage mitigation projects that meet multiple program priorities.

Through BRIC, FEMA continues to invest in a variety of mitigation activities with an added focus on infrastructure projects benefiting disadvantaged communities, nature-based solutions, climate resilience and adaption, and adopting hazard resistant building codes.

Management costs allow FEMA to provide financial assistance to reimburse the recipient and subrecipient for eligible and reasonable indirect costs, direct administrative costs, and other administrative expenses associated with a specific mitigation project or Capacity and Capability-Building (C&CB) activity. Management Costs can be submitted under the State/Territory Allocation, Tribal Set-Aside, and national competition.

The BRIC Program also offers non-financial Direct Technical Assistance (DTA) and encourages communities to participate. BRIC DTA gives full support to communities that may not have the resources to begin climate resilience planning and project solution design on their own. FEMA will give wide-ranging support to BRIC DTA communities including climate risk assessments, community engagement, partnership building, mitigation and climate adaptation planning, and BRIC program requests throughout the grant lifecycle.

1.2 PURPOSE

The purpose of the *MEMA District 8 Regional Hazard Mitigation Plan* is to:

- ✦ Update the existing Covington, Forrest, Greene, Jefferson Davis, Jones, Marion, Perry, and Wayne County hazard mitigation plans into one regional plan;
- ✦ Complete update of existing plans to demonstrate progress and reflect current conditions;
- ✦ Increase public awareness and education;
- ✦ Maintain grant eligibility for participating jurisdictions; and
- ✦ Maintain compliance with state and federal legislative requirements for local hazard mitigation plans.

1.3 SCOPE

The focus of the *MEMA District 8 Regional Hazard Mitigation Plan* is on those hazards determined to be “high” or “moderate” risks to the *MEMA District 8 Region*, as determined through a detailed hazard risk assessment. Other hazards that pose a “low” or “negligible” risk will continue to be evaluated during future updates to the Plan, but they may not be fully addressed until they are determined to be of high or moderate risk. This enables the participating counties to prioritize mitigation actions based on those hazards which are understood to present the greatest risk to lives and property.

The geographic scope (i.e., the planning area) for the Plan includes the counties of Covington, Forrest, Greene, Jefferson Davis, Jones, Marion, Perry, and Wayne, as well as their incorporated jurisdictions. **Table 1.1** identifies the participating areas.

TABLE 1.1: PARTICIPATING JURISDICTIONS IN THE MEMA DISTRICT 8 REGIONAL HAZARD MITIGATION PLAN

<i>Covington County</i>		<i>Jones County</i>	
Collins	Mount Olive	Ellisville	Laurel
Seminary		Sandersville	Soso
<i>Forrest County</i>		<i>Marion County</i>	
Hattiesburg	Petal	Columbia	
<i>Greene County</i>		<i>Perry County</i>	
Leakesville	McLain	Beaumont	New Augusta
State Line		Richton	
<i>Jefferson Davis County</i>		<i>Wayne County</i>	
Bassfield	Prentiss	Waynesboro	

1.4 AUTHORITY

The *MEMA District 8 Regional Hazard Mitigation Plan* has been developed in accordance with current state and federal rules and regulations governing local hazard mitigation plans and has been adopted by each participating county and local jurisdiction in accordance with standard local procedures. Copies of the adoption resolutions for each participating jurisdiction are provided in **Appendix A**. The Plan shall be routinely monitored and revised to maintain compliance with the following provisions, rules, and legislation:

- ★ Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (P.L. 106-390);
- ★ FEMA's Mitigation Planning Final Rule published in the Federal Register on September 16, 2009, at 44 CFR Part 201; and
- ★ Flood Insurance Reform Act of 2004 (P.L. 108-264) and the Biggert-Waters Flood Insurance Reform Act of 2012 (P.L. 112-141)

1.5 SUMMARY OF PLAN CONTENTS

The contents of this Plan are designed and organized to be as reader-friendly and functional as possible. While significant background information is included on the processes used and studies completed (i.e., risk assessment, capability assessment), this information is separated from the more meaningful planning outcomes or actions (i.e., mitigation strategy, mitigation action plan).

Section 2, Planning Process, provides a complete narrative description of the process used to prepare the Plan. This includes the identification of participants on the planning team and describes how the public and other stakeholders were involved. It also includes a detailed summary for each of the key meetings held, along with any associated outcomes.

The **Community Profile**, located in **Section 3**, provides a general overview of the *MEMA District 8 Region*, including prevalent geographic, demographic, and economic characteristics. In addition, building characteristics and land use patterns are discussed. This baseline information provides a snapshot of the planning area and helps local officials recognize those social, environmental, and economic factors that ultimately play a role in determining the region's vulnerability to hazards.

The Risk Assessment is presented in three sections: **Section 4, Hazard Identification**; **Section 5, Hazard Profiles**; and **Section 6, Vulnerability Assessment**. Together, these sections serve to identify, analyze, and assess hazards that pose a threat to the *MEMA District 8 Region*. The risk assessment also attempts to define any hazard risks that may uniquely or exclusively affect specific areas of the *MEMA District 8 Region*.

The Risk Assessment begins by identifying hazards that threaten the *MEMA District 8 Region*. Next, detailed profiles are established for each hazard, building on available historical data from past hazard occurrences, spatial extent, and probability of future occurrence. This section culminates in a hazard risk ranking based on conclusions regarding the frequency of occurrence, spatial extent, and potential impact highlighted in each of the hazard profiles. In the vulnerability assessment, FEMA's HAZUS@MH loss estimation methodology is used to evaluate known hazard risks by their relative long-term cost in expected damages. In essence, the information generated through the risk assessment serves a critical function as the *MEMA District 8 Region* seeks to determine the most appropriate mitigation actions to pursue and implement—enabling it to prioritize and focus its efforts on those hazards of greatest concern and those structures or planning areas facing the greatest risk(s).

The Capability Assessment, found in **Section 7**, provides a comprehensive examination of the *MEMA District 8 Region's* capacity to implement meaningful mitigation strategies and identifies opportunities to increase and enhance that capacity. Specific capabilities addressed in this section include planning and regulatory capability, staff and organizational (administrative) capability, technical capability, fiscal capability, and political capability. Information was obtained through the use of a detailed survey questionnaire and an inventory and analysis of existing plans, ordinances, and relevant documents. The purpose of this assessment is to identify any existing gaps, weaknesses, or conflicts in programs or activities that may hinder mitigation efforts and to identify those activities that should be built upon in establishing a successful and sustainable local hazard mitigation program.

The **Community Profile**, **Risk Assessment**, and **Capability Assessment** collectively serve as a basis for determining the goals for the *MEMA District 8 Regional Hazard Mitigation Plan*, each contributing to the development, adoption, and implementation of a meaningful and manageable Mitigation Strategy that is based on accurate background information.

The **Mitigation Strategy**, found in **Section 8**, consists of broad goal statements as well as an analysis of hazard mitigation techniques for the *MEMA District 8 Region* to consider in reducing hazard vulnerabilities. The strategy provides the foundation for a detailed **Mitigation Action Plan**, found in **Section 9**, which links specific mitigation actions for each county department or agency to locally assigned implementation mechanisms and target completion dates. Together, these sections are designed to make the Plan both strategic, through the identification of long-term goals, and functional, through the identification of immediate and short-term actions that will guide day-to-day decision-making and project implementation.

In addition to the identification and prioritization of possible mitigation projects, emphasis is placed on the use of program and policy alternatives to help make the *MEMA District 8 Region* less vulnerable to the damaging forces of hazards while improving the economic, social, and environmental health of the community. The concept of multi-objective planning was emphasized throughout the planning process, particularly in identifying ways to link, where possible, hazard mitigation policies and programs with complimentary community goals related to disaster recovery, housing, economic development, recreational opportunities, transportation improvements, environmental quality, land development, and public health and safety.

Plan Maintenance, found in **Section 10**, includes the measures that the *MEMA District 8 Region* will take to ensure the Plan's continuous long-term implementation. The procedures also include the manner in which the Plan will be regularly evaluated and updated to remain a current and meaningful planning document.

County-specific Annexes have been created for each of the Counties participating in this plan. Each **Annex** contains information relevant to the County and the participating municipal jurisdictions in the County. Information included in each **County-level Annex** includes **Community Profile**, **Risk Assessment**, and **Capability Assessment information**. The **Mitigation Actions** identified for that County and its municipal jurisdictions are also included in the County's Annex. This allows each County and jurisdiction to quickly locate the information contained in the plan that is most relevant for them.

SECTION 2

PLANNING PROCESS

This section describes the planning process undertaken by the Mississippi Emergency Management Agency (MEMA) *District 8 counties and jurisdictions* in the development of its 2025 Regional Hazard Mitigation Plan. It consists of the following seven subsections:

- ✦ 2.1 Overview of Hazard Mitigation Planning
- ✦ 2.2 History of Hazard Mitigation Planning in the MEMA District 8 Region
- ✦ 2.3 The MEMA District 8 Regional Hazard Mitigation Council
- ✦ 2.4 Community Meetings and Workshops
- ✦ 2.5 Involving the Public
- ✦ 2.6 Involving the Stakeholders
- ✦ 2.7 Documentation of Plan Progress

44 CFR Requirement

44 CFR Part 201.6(c)(1): The plan shall include documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process and how the public was involved.

2.1 OVERVIEW OF HAZARD MITIGATION PLANNING

Local hazard mitigation planning is the process of organizing community resources, identifying and assessing hazard risks, and determining how to best minimize or manage those risks. This process culminates in a hazard mitigation plan that identifies specific mitigation actions, each designed to achieve both short-term planning objectives and a long-term community vision.

To ensure the functionality of a hazard mitigation plan, responsibility is assigned for each proposed mitigation action to a specific individual, department, or agency along with a schedule or target completion date for its implementation (see *Section 10: Plan Maintenance*). *Plan maintenance procedures* are established for the routine monitoring of implementation progress, as well as the evaluation and enhancement of the mitigation plan itself. These plan maintenance procedures ensure that the Plan remains a current, dynamic, and effective planning document over time that becomes integrated into the routine local decision-making process.

Communities that participate in hazard mitigation planning have the potential to accomplish many benefits, including:

- saving lives and property,
- saving money,
- speeding up recovery following disasters,
- reducing future vulnerability through wise development and post-disaster recovery and reconstruction,
- expediting the receipt of pre-disaster and post-disaster grant funding, and
- demonstrating a firm commitment to improving community health and safety.

Typically, mitigation planning is described as having the potential to produce long-term and recurring benefits by breaking the repetitive cycle of disaster loss. A core assumption of hazard mitigation is that the investments made before a hazard event will significantly reduce the demand for post-disaster assistance by lessening the need for emergency response, repair, recovery, and reconstruction. Furthermore, mitigation practices will enable local residents, businesses, and industries to re-establish themselves in the wake of a disaster, getting the community economy back on track sooner and with less interruption.

The benefits of mitigation planning go beyond solely reducing hazard vulnerability. Measures such as the acquisition or regulation of land in known hazard areas can help achieve multiple community goals, such as preserving open space, maintaining environmental health, and enhancing recreational opportunities. Thus, it is vitally important that any local mitigation planning process be integrated with other concurrent local planning efforts, and any proposed mitigation strategies must take into account other existing community goals or initiatives that will help complement or hinder their future implementation.

2.2 HISTORY OF HAZARD MITIGATION PLANNING IN MEMA DISTRICT 8 REGION

One of the Counties in *MEMA District 8* (Lamar) chose not to participate in the development of this plan. The county had recently completed updates to their existing plans and wanted to maximize the approval time they had already received for the plan. They plan to join the regional plan at some point in the future.

All of the jurisdictions that participated in previous planning efforts have participated in the development of this regional plan along with the inclusion of Greene County to this plan.

2.3 THE MEMA DISTRICT 8 REGIONAL HAZARD MITIGATION COUNCIL

In order to guide the development of this **Plan**, the counties in *MEMA District 8* (Covington, Forrest, Greene, Jefferson Davis, Jones, Marion, Perry, and Wayne) and representatives from their participating municipal jurisdictions created the *MEMA District 8 Regional Hazard Mitigation Council (RHMC)*. The *RHMC* represents a community-based planning team made up of representatives from various county departments and municipalities and other key stakeholders identified to serve as critical partners in the planning process.

Beginning in May of 2024, the *RHMC* members engaged in regular discussions as well as local planning workshops to discuss and complete tasks associated with preparing the **Plan**. This working group coordinated on all aspects of plan preparation and provided valuable input to the process. In addition to regular meetings, committee members routinely communicated and were kept informed through an e-mail distribution list.

Specifically, the tasks assigned to the *RHMC* members included:

- participate in *RHMC* meetings and workshops
- provide best available data as required for the risk assessment portion of the **Plan**
- help review the local Capability Assessment information and provide copies of any mitigation or hazard-related documents for review and incorporation into the **Plan**
- support the development of the Mitigation Strategy, including the design and adoption of regional goal statements
- help design and propose appropriate mitigation actions for their department/agency for incorporation into the Mitigation Action Plan
- review and provide timely comments on all study findings and draft plan deliverables
- support the adoption of the *2025 MEMA District 8 Hazard Mitigation Plan*

Each step involved in creating this document built upon the efforts of previous steps to ensure that the mitigation actions outlined at the end of this document have a valid basis for their implementation and truly address actions that will reduce the individual vulnerabilities identified throughout *District 8*.

The planning process carried out by the Mitigation Council is detailed below with a listing of basic steps completed during each task, as well as the project timeline:

1. Organizing the Planning Process/Building the Planning Team

- Engage local Leadership
- Engage Whole Community as well as the vulnerable populations
- Establish a Mitigation Council
- Develop and implement an outreach strategy
- Develop a project timeline.

2. Community Assessment

- Review existing plans and policies
- Develop community profiles
- Identify critical facilities
- Identify *District 8's overall capabilities*
- Identify participation in the National Flood Insurance Program
- Identify Repetitive Loss properties for each area

3. Conduct Risk/Vulnerability Assessment

- Identify hazards
- Develop hazard profiles
- Identify community assets
- Analyze the risks to determine individual vulnerabilities
- Summarize District 8's overall vulnerabilities

4. Develop Goals and Objectives

- Develop long-term outcomes through goal statements
- Develop specific objectives for each long-term goal.

5. Develop a Mitigation Strategy

- Document progress implementing previous actions
- Identify an action plan specific to each community

6. Plan Review, Approval, and Adoption

- Draft plan review
- Plan amendments as needed
- Final plan review
- Plan adoption

Table 2.1 lists the members of the *RHMC* who were responsible for participating in the development of the Plan. Council members are listed in alphabetical order by last name.

TABLE 2.1: MEMBERS OF THE MEMA DISTRICT 8 REGIONAL HAZARD MITIGATION COUNCIL

Name Title	Department/ Agency
EMA Director Brennon Chancellor	Covington County
City Clerk Suzette Davis	Collins
Mayor Billy Roberts	Mt. Olive
Mayor Rick Hux	Seminary
Corey Proctor, Planning Director	Forrest County
Marybeth Bergin, Engineering Manager	Hattiesburg
Alderman Drew Brickson	Petal
EMA Director Trent Richardson	Greene County
Mayor James Ragcliff	Leakesville
Ashley Williams, City Clerk	McLain
Mayor Willie Miller	State Line
EMA Director Jocelyn M. Ragsdale	Jefferson Davis County & Prentiss
Jason Wambolt, Water Sewer Admin.	Bassfield
Kim Mason, City Clerk	Bassfield
EMA Director Paul G. Sheffield	Jones County, Ellisville, Laurel, Sandersville, & Soso
EMA Director Aaron Greene	Marion County
Marie Temples, Representative	Marion County
Mayor Justin McKenzie	Columbia
EMA Director Chase Dewitt	Perry County
Mayor Scotty L. Daily	Beaumont
Sherry Burns, City Clerk	New Augusta
Keith Stringer, Representative	Richton
EMA Angela Atchison	Wayne County
Dwayne Rawson, City Clerk	Waynesboro
Tim Gordy, Area Coordinator	MEMA
Calvin Williams, Mitigation Planner	MEMA
Kandice McNamee, Mitigation Planner	MEMA
Frank Hill, Planning Bureau Director	MEMA

Some of the Regional Hazard Mitigation Council Members listed above were designated to represent more than one jurisdiction.

2.3.1 Multi-Jurisdictional Participation

The *MEMA District 8 Hazard Mitigation Plan* includes eight counties and nineteen incorporated municipalities. To satisfy multi-jurisdictional participation requirements, each county and its participating jurisdictions were required to perform the following tasks:

- Participate in mitigation planning workshops.
- Identify completed/new mitigation projects, if applicable; and
- Develop and adopt (or update) their local Mitigation Action Plan.

Each jurisdiction participated in the planning process and has developed a local Mitigation Action Plan unique to their jurisdiction. Each jurisdiction will adopt their Mitigation Action Plan separately. This provides the means for jurisdictions to monitor and update their Plan on a regular basis.

2.4 COMMUNITY MEETINGS AND WORKSHOPS

The preparation of this Plan required a series of meetings and workshops for facilitating discussion, gaining consensus and initiating data collection efforts with local government staff, community officials, and other identified stakeholders. More importantly, the meetings and workshops prompted continuous input and feedback from relevant participants throughout the drafting stages of the Plan. Following the initial meeting, over the course of several phone calls, mail, and email exchanges, MEMA Mitigation Planners gathered the data needed to complete this plan. The following is a summary of the key meetings and community workshops held during the development of the plan update. In many cases, routine discussions and additional meetings were held by local staff to accomplish planning tasks specific to their department or agency, such as the approval of specific mitigation actions for their department or agency to undertake and include in the Mitigation Action Plan. All meeting materials are located in **Appendix A**, and surveys and results are located in **Appendix B**.

TABLE 2.2: HAZARD MITIGATION PLANNING MEETINGS

Meeting Dates	Meeting Notes
May 3, 2024	MEMA Region 8 HMP Kickoff Meeting- Discussed project background and purpose, overview of the project, completed a hazard identification exercise, and discussed next steps.
September 2024	MEMA Region 8 HMP Mitigation Strategy Meeting- discussed plan goals and potential updates to those goals. Also sent out the Hazard Identification Survey.
October 2024	MEMA Region 4 HMP Mitigation Strategy Meeting- discussed plan goals and potential updates to those goals. Also, discussed mitigation actions within the region. Also sent out Vulnerability Assessments to the Mitigation Council, and they sent them to the locals in the communities.
November – December 2024	Individual County/municipality will go over their Annexes to make sure they agree with all the information and to update existing mitigation actions as well as new mitigation actions
January 14-16 2025	Mitigation Planning Class/Workshop
January— February 2025	Reviewing of the HMP Draft at the local level.
January 13, 2025	Send HMP Draft to FEMA

2.5 INVOLVING THE PUBLIC

44 CFR Requirement

44 CFR Part 201.6(b)(1): The planning process shall include an opportunity for the public to comment on the plan during the drafting stage and prior to plan approval.

An important component of the mitigation planning process involves public participation. Individual citizen and community-based input provides the entire planning team with a greater understanding of local concerns and increases the likelihood of successfully implementing mitigation actions by developing community “**buy-in**” from those directly affected by the decisions of public officials. As citizens become more involved in decisions that affect their safety, they are more likely to gain a greater appreciation of the hazards present in their community and take the steps necessary to reduce their impact. Public awareness is a key component of any community's overall mitigation strategy aimed at making a home, a neighborhood, schools, businesses, and/or entire city safer from the potential effects of hazards.

The Public was provided two opportunities to be involved in the actual plan development at two distinct periods during the planning process: (1) during the drafting stage of the Plan; and (2) upon completion of a final draft Plan, but prior to official plan approval and adoption.

Each of the participating jurisdictions will hold public meetings before the final plan is officially adopted by the local governing bodies. These meetings will occur at different times once FEMA has granted conditional approval of the Plan. Adoption resolutions will be included in **Appendix C**.

2.6 INVOLVING THE STAKEHOLDERS

44 CFR Requirement

44 CFR Part 201.6(b)(2): The planning process shall include an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other non-profit interests to be involved in the planning process.

At the beginning of the planning process for the development of this plan the *MEMA Mitigation Planning Staff* worked with the *MEMA District 8 Area Coordinator* and each of the eight County Emergency Management leads to initiate outreach to stakeholders, academia, and non-profits in their jurisdiction to be involved in the planning process. This allowed for a wide range of stakeholders to be involved in the planning process by providing requested data needed to update the plan. Each of the eight County Emergency Management leads invited stakeholders from their counties to participate in the planning process.

Additionally, the MEMA Mitigation Planning Staff and the County EM leads contacted Mississippi Automated Resources Information System (MARIS), Mississippi Forestry Commission, Mississippi Department of Environmental Quality, and Local Red Cross, to ask them to participate in the planning process and provide data that was used in the development of this plan.

2.6.1 Public Participation and Additional Stakeholder Involvement

Mitigation Staff took an active approach to engaging the public and other that hold a stake in mitigation planning in the update of this mitigation plan. The following review of steps taken in the development of previous plans; staff devised a public outreach strategy that provided several opportunities for participants as well as the general public throughout the development of this plan. The opportunities included:

- MEMA's Website
- Local and County Websites and Facebook Pages
- Surveys and Questionnaires sent out using the Whole Community Approach by placing them in places that are assessable to all, for example, placing them at public local utility departments, City Halls, local churches...
- Reviewing and commenting on the draft document

2.7 DOCUMENTATION OF PLAN PROGRESS

Progress in hazard mitigation planning for the participating jurisdictions in the *MEMA District 8 Region* is documented in this plan update. Since hazard mitigation planning efforts officially began in the participating counties with the development of the initial Hazard Mitigation Plans in the late 1990's/early 2000s, many mitigation actions have been completed and implemented in the participating jurisdictions. These actions will help reduce the overall risk to natural hazards for the people and property in the Region. The actions that have been completed are documented in the *Mitigation Action Plan found in Section 9*.

In addition, community capability continues to improve with the implementation of new plans, policies and programs that help to promote hazard mitigation at the local level. The current state of local capabilities for the participating jurisdictions is captured in *Section 7: Capability Assessment*. The participating jurisdictions continue to demonstrate their commitment to hazard mitigation and hazard mitigation planning and have proven this by reconvening the Hazard Mitigation Planning Team to update the Plan and by continuing to involve the public in the hazard mitigation planning process.

2.7.1 News Articles

See *Appendix A*

2.7.2 Local Community Websites and Facebook Posts

See *Appendix A*

2.7.3 Review and Commenting Opportunities

The public was given the opportunity to review copies of the plan and to provide comments on the District 4 regional plan on multiple occasions. The first opportunity took place during the draft stage of the plan, and another opportunity took place just prior to the formal adoption of the plan. The notices of these public viewings and comment opportunities were placed on the Community's or County's Websites and posted at various community buildings. Copies of the plan were also made available to the public at various locations listed in below in **Table 2.3**

SECTION 3

COMMUNITY PROFILE

This section of the Plan provides a general overview of the MEMA District 8 Region. It consists of the following four subsections:

- 3.1 Geography and the Environment
- 3.2 Population and Demographics
- 3.3 Housing, Infrastructure, and Land Use
- 3.4 Employment and Industry

The County-specific annexes provide more detailed community profile information about each County.

3.1 GEOGRAPHY AND THE ENVIRONMENT

The *MEMA District 8 Region* was named based on the Mississippi Emergency Management Agency’s district lines and is one of nine MEMA regions throughout the state. The Region is located in the southeastern portion of the state. It is bordered by the Mississippi/Alabama State Line to the east. The *MEMA District 8 Region* includes the counties of Covington, Forrest, Greene, Jefferson Davis, Jones, Marion, Perry, and Wayne. Lamar is also in *MEMA District 8* but is not a participant in the development of this plan. An orientation map is provided as **Figure 3.1**.

The region surrounds the metropolitan area of Hattiesburg which is home to The University of Southern Mississippi and has traditionally been a major hub of transportation intersections (rail and road). The *MEMA District 8 Region* is often associated with the Civil Rights movement of the 1960s, and there are many important historic sites throughout the region. During the Civil War, Jones County was known as a haven of anti-secessionism and came to be known as “The Free State of Jones.” The region is also home to a number of naturally protected areas that attract tourists to the area, such as the De Soto National Forrest in Wayne County.

The total area of each of the participating counties is presented in **Table 3.1**.

TABLE 3.1: TOTAL AREAS OF PARTICIPATING COUNTIES

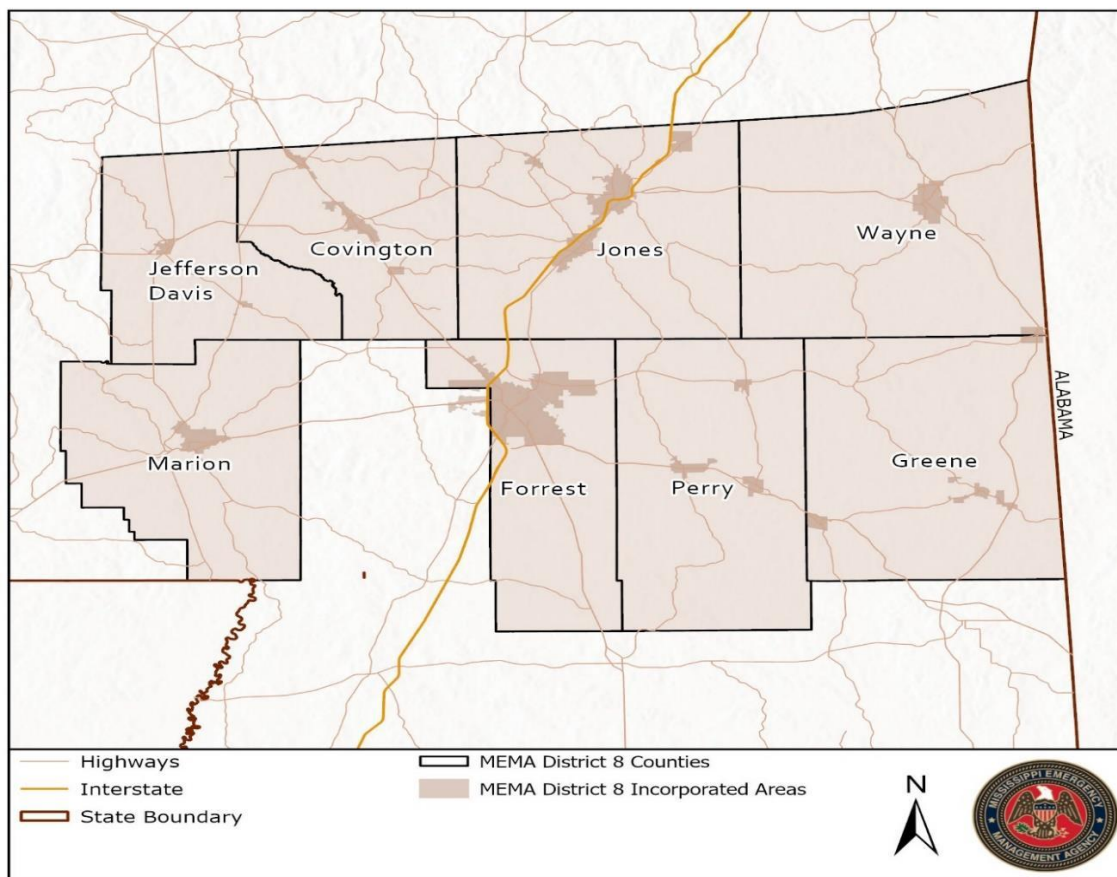
County	Total Area
Covington County	415 square miles
Forrest County	470 square miles
Greene County	728 square miles
Jefferson Davis County	409 square miles
Jones County	700 square miles
Marion County	549 square miles
Perry County	650 square miles
Wayne County	814 square miles

Source: US Census Bureau

The *MEMA District 8 Region* enjoys four distinct seasons but the climate in the region is generally hot and humid compared to much of the rest of the United States given its latitude and relative proximity to the Gulf Coast. The region generally receives steady precipitation throughout the year, averaging between 4 and 5 inches per month. The hottest months of the year tend to be July and August when average high temperatures reach the low to mid 90s and the coldest month is typically January with average low temperatures dropping to the mid-thirties.

The region is also often susceptible to turbulent weather when warm, wet air from the Gulf of Mexico is pushed up into the region and mixes with cooler air coming down from across the continent resulting in severe weather conditions. This is particularly true in the spring and fall when seasons are changing, and diverse weather patterns interact.

FIGURE 3.1: MEMA DISTRICT 8 REGION ORIENTATION MAP



3.2 POPULATION AND DEMOGRAPHICS

Although Wayne County is the largest participating county by area, Forrest County has the largest population. Between 2010 and 2020, the majority of participating jurisdictions experienced little to no growth, and most experienced a notable decline in population. Forrest County had the only rate of growth at 4.2% percent. Due to the overall decline in population in District 8, an overall decline in vulnerability could occur. Population counts from the US Census Bureau for 2010 and 2020 for each of the participating counties and jurisdictions are presented in **Table 3.2**.

TABLE 3.2: POPULATION COUNTS FOR PARTICIPATING COUNTIES

Jurisdiction	2010 Census Population	2020 Census Population	% of Change 2010-2020
Covington County	19,568	18,335	-6.3%
Forrest County	75,007	78,162	+4.2%
Greene County	14,400	13,601	-5.5%
Jefferson Davis County	12,487	11,320	-9.3%
Jones County	67,761	66,244	-2.2%
Marion County	27,088	24,439	-9.8%
Perry County	12,250	11,508	-6%
Wayne County	20,747	19,778	-4.7%

Source: US Census Bureau

Based on the 2020 Census, the median age for residents of the participating counties ranges from 37 to 43 years. The racial characteristics of the participating counties are presented in **Table 3.3**. Generally, whites make up the majority of the population in the region, however, blacks make up a significant population throughout the region as well and in some cases represent the majority. **Table 3.4** shows the Social Vulnerability Index Rankings for Each County.

TABLE 3.3: DEMOGRAPHICS OF PARTICIPATING COUNTIES

Jurisdiction	White Persons Percent 2020	Black Persons, Percent 2020	American Indian or Alaska Native, Percent 2020	Other Races Percent 2020	Persons of Hispanic Origin, Percent 2020
Covington County	60%	36%	0%	1%	3%
Forrest County	57%	37%	0%	1%	3%
Greene County	72%	26%	0%	1%	2%
Jefferson Davis County	38%	59%	0%	1%	2%
Jones County	65%	29%	0%	1%	5%
Marion County	65%	32%	0%	1%	2%
Perry County	78%	19%	1%	0%	2%
Wayne County	57%	40%	0%	1%	2%

Source: US Census Bureau

TABLE 3.4: SOCIAL VULNERABILITY INDEX RANKINGS

Jurisdiction	Risk Rating	Social Vulnerability Index Rating	Resilience Rating
Covington County	Relatively Low	Relatively High	Very Low
Forrest County	Relatively Moderate	Very High	Relatively Moderate
Greene County	Relatively Low	Relatively High	Very Low
Jefferson Davis County	Very Low	Relatively High	Very Low
Jones County	Relatively Moderate	Very High	Relatively Low
Marion County	Relatively Low	Very High	Very Low
Perry County	Relatively Low	Relatively High	Very Low
Wayne County	Relatively Low	Very High	Very Low

3.3 HOUSING, INFRASTRUCTURE, AND LAND USE

3.3.1 Housing

According to the 2020 US Census, there are 98,544 housing units in the *MEMA District 8 Region*, most of which are single family homes. Housing information for the seven participating counties is presented in **Table 3.5**. Although some counties have an increase in housing units there has been no mention of it increasing vulnerability, the overall median home value increase could lead to an increase of vulnerability.

TABLE 3.5: HOUSING CHARACTERISTICS OF PARTICIPATING COUNTIES

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2020)	Median Home Value (2020)
Covington County	8,501	\$78,900	8,415	\$76,700
Forrest County	29,913	\$144,000	33,831	\$114,000
Greene County	5123	\$82,000	5,104	\$97,500
Jefferson Davis County	5,876	\$69,500	5,693	\$87,800
Jones County	28,424	\$85,000	28,905	\$120,100
Marion County	11,838	\$82,800	11,201	\$104,100
Perry County	5,519	\$82,200	5,505	\$126,400
Wayne County	9,213	\$64,400	9,145	\$89,100

Source: US Census Bureau

3.3.2 Infrastructure

TRANSPORTATION

There are several major thoroughfares that traverse the *MEMA District 8 Region*. US Interstate 59 runs roughly northeast to southwest through Jones and Forrest County, connecting with US Interstate 10 to the south and running into New Orleans. It is intersected by US Highway 84 which traverses across Wayne, Jones, Covington, and Jefferson Davis Counties from east to west, connecting Waynesboro, Laurel, and Collins. US Highway 98 runs through Perry, Greene, and Marion Counties from east to west and connects both of these counties with Hattiesburg. Highway 49 runs through Forrest and Covington Counties.

There are several small general aviation airports within the *MEMA District 8 Region*, including the Columbia-Marion County Airport in Columbia and the Richton-Perry County Airport in Richton. The major airport nearest to the region is the Hattiesburg-Laurel Regional Airport in Hattiesburg which offers non-stop commercial flights to destinations across the eastern US and Midwest and is generally less than 50 miles from anywhere in the region.

Another major nearby airport that is often used by residents in the region is the Jackson-Medgar Wiley Evers International Airport, located in Jackson, Mississippi, which is used for longer flights into and out of the region.

UTILITIES

Electric power in the MEMA District 8 Region is provided by several electricity cooperatives, many of which are provided with power by Mississippi Power Company. Dixie Electric Power Association (EPA) serves Jones, Wayne, and Perry Counties. Meanwhile, Southern Pine EPA serves much of Covington and Jefferson Davis Counties and Pearl River Valley EPA is the primary provider to Marion County.

Water and sewer service is generally provided by all of the participating towns, but unincorporated areas rely on septic systems and wells in the MEMA District 8 Region.

COMMUNITY FACILITIES

There are a number of public buildings and community facilities located throughout the *MEMA District 8 Region*. According to the data collected for the vulnerability assessment (*Section 6.4.1*), there are 93 fire stations, 33 police stations, 8 medical care facilities, 7 EOCs, and 111 schools located within the study area.

Seven hospitals are located in the *MEMA District 8 Region*. The largest is Forrest General Hospital is a 545 inpatient bed facility with a 400-bed medical-surgical hospital located in the City of Hattiesburg. The second largest is the South Central Regional Medical Center, a 285-bed, not-for-profit hospital located in Laurel. Wayne General Hospital follows with 85 beds and Perry County General Hospital has 60 beds.

The *MEMA District 8 Region* contains numerous local, state, and national parks and recreation areas, the largest of which is the De Soto National Forest in Wayne and Perry Counties. These facilities offer recreational opportunities to area residents and hundreds of thousands of visitors each year.

3.3.3 Land Use

Many areas of the *MEMA District 8 Region* are undeveloped or sparsely developed due to the region's location just off the Gulf Coast and the conservation of land in state and national parks. As shown in **Figure 3.1** above, there are a few incorporated municipalities located throughout the study area, and these areas are where the region's population is generally concentrated. The incorporated areas are also where many of the businesses, commercial uses, and institutional uses are located. Land uses in the balance of the study area generally consist of rural residential development, agricultural uses, and recreational areas.

3.4 EMPLOYMENT AND INDUSTRY

Like many other parts of Mississippi, the *MEMA District 8 Region's economy* has traditionally been heavily reliant on the manufacturing industries. However, the region has suffered from numerous plant closings during the 1990s and 2000s. As a result, many of the communities are now working to develop place-based economies that will rely on the *MEMA District 8 Region's* cultural traditions and natural resources. Agriculture also continues to play a major role in the local economy and there are cattle, poultry, and other operations located throughout the region. As the construction sector continues to recover, this area of employment is also expected to pick back up.

According to the Mississippi Employment Security Commission (MESC), in 2024, **Covington County** had an average annual employment of 8,100 workers and an average unemployment rate of 2.2 percent (compared to 6.0 percent for the state). In 2023, Education Services and Health Care employed 29.6 percent and the Manufacturing industry employed 19.3 percent of the County's workforce followed by Retail Trade (17.2%), and Construction (6.7%). The average annual wage in 2023 for **Covington County** was \$40,164 compared to \$52,985 for the State of Mississippi.

In 2024, **Forrest County** had an average annual employment of 33,020 workers and an average unemployment rate of 2.4 percent. According to the MESC, in 2023, the Education Services and Health Care employed 25.2% percent of the workforce followed by Retail Trade (15.1%) and Art, Entertainment, and Food Service (13.4%). The average annual wage in **Forrest County** was \$ 49,340 compared to \$52,985 for the State of Mississippi.

In 2024, **Greene County** had an average annual employment of 4,220 workers and an average unemployment rate of 2.7 percent. According to the MESC, in 2023, the Education Services and Health Care employed 23 percent of the workforce followed by Construction (18.5%) and Manufacturing (10.3%). The average annual wage in 2023 for **Greene County** was \$ 50,000 compared to \$52,985 for the State of Mississippi.

In 2024, **Jefferson Davis County** had an average annual employment of 3,830 workers and an average unemployment rate of 3.5 percent. According to the MESC, in 2023, the Education Services and Health Care employed 29.1 percent of the workforce followed by Manufacturing (13.9%) and Retail Trade (13.8 %) and Transportation, Warehousing, and Utilities (11.3%). The average annual wage in **Jefferson Davis County** was \$36,473 compared to \$52,985 for the State of Mississippi.

Jones County had an average annual employment of 24,760 workers in 2024 and an average unemployment rate of 2.7 percent. According to the MESC, in 2023, the Health Care and Social Assistance employed the most people, with 20 percent of the workforce, followed by Manufacturing (18.9%) and Retail Trade (13.7%), and Construction (11.5%). The average annual wage in **Jones County** was \$49,451 compared to \$52,985 for the State of Mississippi.

In 2024, **Marion County** had an average annual employment of 10,010 workers and an average unemployment rate of 2.6 percent. In 2023, according to the MESC, Education Services and Health Care employed 24.2 percent of the workforce. Construction was the second largest industry, employing (11.5%) of workers, and Retail Trade followed closely behind (10.9%). The average annual wage in **Marion County** was \$38,399 compared to \$52,985 for the State of Mississippi.

In 2024, **Perry County** had an average annual employment of 4,190 workers and an average unemployment rate of 3.1 percent. According to the MESC, in 2023, Health Care and Social Assistance employed 22.5 percent of the workforce followed by a tie between Manufacturing and Construction (12.5 %), and Retail Trade (10.7%). The average annual wage in **Perry County** was \$48,333 compared to \$52,985 for the State of Mississippi.

In 2024, **Wayne County** had an average annual employment of 6,840 workers and an average unemployment rate of 2 percent (compared to 6.0 percent for the state). In 2023, the Health Care and Social Assistance industry continues to lead by employing the most people, with 26.7 percent of the workforce, followed by Manufacturing (19.4%) and Retail Trade (12.4%). The average annual wage in 2023 for **Wayne County** was \$34,875 compared to \$52,985 for the State of Mississippi.

SECTION 4

HAZARD IDENTIFICATION

This section describes how the planning team identified the hazard to be included this plan. It consists of the following five subsections:

- ★ 4.1 Overview
- ★ 4.2 Description of Full Range of Hazards
- ★ 4.3 Disaster Declarations
- ★ 4.4 Hazard Evaluation
- ★ 4.5 Hazard Identification Results

44 CFR Requirement

44 CFR Part 201.6(c)(2)(i): The risk assessment shall include a description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

The *MEMA District 8 Region* is vulnerable to a wide range of natural and human-caused hazards that threaten life and property. Current FEMA regulations and guidance under the Disaster Mitigation Act of 2000 (DMA 2000) require, at a minimum, an evaluation of a full range of natural hazards. An evaluation of human-caused (i.e., terrorism) and technological hazards (i.e., hazardous materials incident) is encouraged, though not required, for plan approval. The *MEMA District 8 Region* has included a comprehensive assessment of all hazards. It should be noted however, that this list may not be all-inclusive and will be revisited with each plan update.

Upon a review of the full range of natural hazards suggested under FEMA planning guidance, the participating jurisdictions in the *MEMA District 8 Regional Hazard Mitigation Plan* have identified a number of hazards that are to be addressed in this plan including natural, technological, and human-caused disasters. These hazards were identified through an extensive process that utilized input from the *MEMA District 8 Hazard Mitigation Council (MEMA District 8 HMC)* members, research of past disaster declarations in the participating counties, review of past *MEMA District 8 Regional Hazard Mitigation Plan*, review of studies and reports, and review of the Mississippi State Hazard Mitigation Plan (2023). Readily available information from reputable sources (such as federal and state agencies) were also evaluated to supplement information from these key sources.

Table 4.1 lists the full range of hazards initially identified for inclusion in the Plan and provides a brief description for each. This table includes 27 individual hazards. Some of these hazards are considered to be interrelated or cascading (one hazard event may cause another, i.e. – hurricanes cause flooding), but for preliminary hazard identification purposes these individual hazards are broken out separately.

Table 4.2 lists the disaster declarations in the *MEMA District 8 Region*.

Table 4.3 documents the evaluation process used for determining which of the initially identified hazards are considered significant enough to warrant further evaluation in the risk assessment. For each hazard considered, the table indicates whether or not the hazard was identified as a significant hazard to be further assessed, how this determination was made, and why this determination was made. The table works to summarize not only those hazards that were identified (and why) but also those that were not identified (and why not). Hazard events not identified for inclusion at this time may be addressed during future evaluations and updates of the risk assessment if deemed necessary by the *MEMA District 8 RHMC* during the plan update process.

Lastly, **Table 4.4** provides a summary of the hazard identification and evaluation process noting that 22 of the 29 initially identified hazards are considered significant enough for further evaluation in this Plan’s Risk Assessment (marked with a “☑”)

4.2 DESCRIPTION OF FULL RANGE OF HAZARDS

In this section, hazards are classified into groups including atmospheric hazards, hydrological hazards, geologic hazards, and other hazards (a catch-category of hazards all that typically includes human-caused and technological hazards). As noted above, several sources were consulted to determine a list of hazard to be considered by *MEMA District 8*. These include the *MEMA District 8 HMC members*, research of past disaster declarations in the participating counties, the review of studies and reports, and review of the State of Mississippi Hazard Mitigation Plan (2023). Readily available information from reputable sources (such as federal and state agencies) was also evaluated to supplement information from these key sources.

TABLE 4.1: DESCRIPTIONS OF THE FULL RANGE OF INITIALLY IDENTIFIED HAZARDS

Hazards	Hazard Description
ATMOSPHERIC HAZARDS	
Avalanche	A rapid fall or slide of a large mass of snow down a mountainside.
Climate Change	Climate change is a long-term change in the average weather patterns that have come to define Earth's local, regional and global climates.
Drought	A prolonged period of less than normal precipitation such that the lack of water causes a serious hydrologic imbalance. Common effects of drought include crop failure, water supply shortages, and fish and wildlife mortality. High temperatures, high winds, and low humidity can worsen drought conditions and also make areas more susceptible to wildfire. Human demands and actions have the ability to hasten or mitigate drought-related impacts on local communities.
Hailstorm	Any storm that produces hailstones that fall to the ground; usually used when the amount or size of the hail is considered significant. Hail is formed when updrafts in thunderstorms carry raindrops into parts of the atmosphere where the temperatures are below freezing.
Heatwave	A heat wave may occur when temperatures hover 10 degrees or more above the average high temperature for the region and last for several weeks. Humid or muggy conditions, which add to the discomfort of high temperatures, occur when a "dome" of high atmospheric pressure traps hazy, damp air near the ground. Excessively dry and hot conditions can provoke dust storms and low visibility. A heat wave combined with a drought can be very dangerous and have severe economic consequences on a community.
Hurricane/ Tropical Storm	Hurricanes and tropical storms are classified as cyclones and defined as any closed circulation developing around a low-pressure center in which the winds rotate counterclockwise in the Northern Hemisphere (or clockwise in the Southern Hemisphere) and with a diameter averaging 10 to 30 miles across. When maximum sustained winds reach or exceed 39 miles per hour, the system is designated a tropical storm, given a name, and is closely monitored by the National Hurricane Center. When sustained winds reach or exceed 74 miles per hour the storm is deemed a hurricane. The primary damaging forces associated with these storms are high-level sustained winds, heavy precipitation and tornadoes. Coastal areas are also vulnerable to the additional forces of storm surge, wind-driven waves and tidal flooding which can be more destructive than cyclone wind. The majority of hurricanes and tropical storms form in the Atlantic Ocean, Caribbean Sea and Gulf of Mexico during the official Atlantic hurricane season, which extends from June through November.
Lightning	Lightning is a discharge of electrical energy resulting from the buildup of positive and negative charges within a thunderstorm, creating a "bolt" when the buildup of charges becomes strong enough. This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning can reach temperatures approaching 50,000 degrees Fahrenheit. Lightning rapidly heats the sky as it flashes, but the surrounding air cools following the bolt. This rapid heating and cooling of the surrounding air causes thunder. On average, 28 people are killed each year by lightning strikes in the United States, and 73% of lightning deaths occur in June, July, and August according to the CDC.
Nor'easter	Similar to hurricanes, nor'easters are ocean storms capable of causing substantial damage to coastal areas in the Eastern United States due to their associated strong winds and heavy surf. Nor'easters are named for the winds that blow in from the northeast and drive the storm up the East Coast along the Gulf Stream, a band of warm water that lies off the Atlantic coast. They are caused by the interaction of the jet stream with horizontal temperature gradients and generally occur during the fall and winter months when moisture and cold air are plentiful. Nor'easters are known for dumping heavy amounts of rain and snow, producing hurricane-force winds, and creating high surf that causes severe beach erosion and coastal flooding.
	A tornado is a violently rotating column of air that has contact with the ground and is often visible

Tornado	as a funnel cloud. Its vortex rotates cyclonically with wind speeds ranging from as low as 40 mph to as high as 300 mph. Tornadoes are most often generated by thunderstorm activity when cool, dry air intersects and overrides a layer of warm, moist air forcing the warm air to rise rapidly. The destruction caused by tornadoes ranges from light to catastrophic depending on the intensity, size and duration of the storm.
Severe Thunderstorm	Thunderstorms are caused by air masses of varying temperatures meeting in the atmosphere. Rapidly rising warm moist air fuels, the formation of thunderstorms. Thunderstorms may occur singularly, in lines, or in clusters. They can move through an area very quickly or linger for several hours. Thunderstorms may result in hail, tornadoes, or straight-line winds. Windstorms pose a threat to lives, property, and vital utilities primarily due to the effects of flying debris and can down trees and power lines.
Winter Storm/ Freeze	Winter storms may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Blizzards, the most dangerous of all winter storms, combine low temperatures, heavy snowfall, and winds of at least 35 miles per hour, reducing visibility to only a few yards. Ice storms occur when moisture falls and freezes immediately upon impact on trees, power lines, communication towers, structures, roads and other hard surfaces. Winter storms and ice storms can down trees, cause widespread power outages, damage property, and cause fatalities and injuries to human life.
GEOLOGIC HAZARDS	
Earthquake	A sudden, rapid shaking of the Earth caused by the breaking and shifting of rock beneath the surface. This movement forces the gradual building and accumulation of energy. Eventually, strain becomes so great that the energy is abruptly released, causing the shaking at the earth's surface which we know as an earthquake. Roughly 90 percent of all earthquakes occur at the boundaries where plates meet, although it is possible for earthquakes to occur entirely within plates. Earthquakes can affect hundreds of thousands of square miles; cause damage to property measured in the tens of billions of dollars; result in loss of life and injury to hundreds of thousands of persons; and disrupt the social and economic functioning of the affected area.
Expansive Soils	Soils that will exhibit some degree of volume change with variations in moisture conditions. The most important properties affecting degree of volume change in a soil are clay mineralogy and the aqueous environment. Expansive soils will exhibit expansion caused by the intake of water and, conversely, will exhibit contraction when moisture is removed by drying. Generally speaking, they often appear sticky when wet and are characterized by surface cracks when dry. Expansive soils become a problem when structures are built upon them without taking proper design precautions into account with regard to soil type. Cracking in walls and floors can be minor or can be severe enough for the home to be structurally unsafe.
Landslide	The movements of a mass of rock, debris, or earth down a slope when the force of gravity pulling down the slope exceeds the strength of the earth materials that comprise to hold it in place. Slopes greater than 10 degrees are more likely to slide, as are slopes where the height from the top of the slope to its toe is greater than 40 feet. Slopes are also more likely to fail if vegetative cover is low and/or soil water content is high.
Land Subsidence	The gradual settling or sudden sinking of the Earth's surface due to the subsurface movement of earth materials. Causes of land subsidence include groundwater pumpage, aquifer system compaction, drainage of organic soils, underground mining, hydro compaction, natural compaction, sinkholes, and thawing permafrost.
Sinkhole	Sinkholes are a natural and common geologic feature in areas with underlying limestone and other rock types that are soluble in natural water. Most limestone is porous, allowing the acidic water of rain to percolate through their strata, dissolving some limestone and carrying it away in solution. Over time, this persistent erosional process can create extensive underground voids and drainage systems in much of the carbonate rocks. Collapse of overlying sediments into the underground cavities produces sinkholes.
Tsunami	A series of waves generated by an undersea disturbances such as an earthquake. The speed of a tsunami traveling away from its source can range from up to 500 miles per hour in deep water to approximately 20 to 30 miles per hour in shallower areas near coastlines. Tsunamis differ from regular ocean waves in that their currents travel from the water surface all the way down to the sea floor. Wave amplitudes in deep water are typically less than one meter; they are often barely detectable to the human eye. However, as they approach shore, they slow in shallower water, basically causing the waves from behind to effectively "pile up", and wave heights to increase dramatically. As opposed to typical waves which crash at the shoreline, tsunamis bring with them a continuously flowing 'wall of water' with the potential to cause devastating damage in coastal areas located immediately along the shore.

Volcano	A mountain that opens downward to a reservoir of molten rock below the surface of the earth. While most mountains are created by forces pushing up the earth from below, volcanoes are different in that they are built up over time by an accumulation of their own eruptive products: lava, ash flows, and airborne ash and dust. Volcanoes erupt when pressure from gases and the molten rock beneath becomes strong enough to cause an explosion.
HYDROLOGIC HAZARDS	
Dam and Levee Failure	Dam failure is the collapse, breach, or other failure of a dam structure resulting in downstream flooding. In the event of a dam failure, the energy of the water stored behind even a small dam is capable of causing loss of life and severe property damage if development exists downstream of the dam. Dam failure can result from natural events, human-induced events, or a combination of the two. The most common cause of dam failure is prolonged rainfall that produces flooding. Failures due to other natural events such as hurricanes, earthquakes or landslides are significant because there is generally little or no advance warning.
Erosion	Erosion is the gradual breakdown and movement of land due to both physical and chemical processes of water, wind, and general meteorological conditions. Natural, or geologic, erosion has occurred since the Earth's formation and continues at a very slow and uniform rate each year.
Flood	The accumulation of water within a water body which results in the overflow of excess water onto adjacent lands, usually floodplains. The floodplain is the land adjoining the channel of a river, stream, ocean, lake or other watercourse or water body that is susceptible to flooding. Most floods fall into the following three categories: riverine flooding, coastal flooding, or shallow flooding (where shallow flooding refers to sheet flow, ponding and urban drainage).
Storm Surge	A storm surge is a large dome of water often 50 to 100 miles wide and rising anywhere from four to five feet in a Category 1 hurricane up to more than 30 feet in a Category 5 storm. Storm surge heights and associated waves are also dependent upon the shape of the offshore continental shelf (narrow or wide) and the depth of the ocean bottom (bathymetry). A narrow shelf, or one that drops steeply from the shoreline and subsequently produces deep water close to the shoreline, tends to produce a lower surge but higher and more powerful storm waves. Storm surge arrives ahead of a storm's actual landfall and the more intense the hurricane is, the sooner the surge arrives. Storm surge can be devastating to coastal regions, causing severe beach erosion and property damage along the immediate coast. Further, water rise caused by storm surge can be very rapid, posing a serious threat to those who have not yet evacuated flood-prone areas.
OTHER HAZARDS	
Hazardous Materials Incident	Hazardous material (HAZMAT) incidents can apply to fixed facilities as well as mobile, transportation-related accidents in the air, by rail, on the nation's highways and on the water. HAZMAT incidents consist of solid, liquid and/or gaseous contaminants that are released from fixed or mobile containers, whether by accident or by design as with an intentional terrorist attack. A HAZMAT incident can last hours to days, while some chemicals can be corrosive or otherwise damaging over longer periods of time. In addition to the primary release, explosions and/or fires can result from a release, and contaminants can be extended beyond the initial area by persons, vehicles, water, wind and possibly wildlife as well.
Pipeline Incident	In the case of this plan, a pipeline incident generally refers to a spill, explosion, or fire caused in the transport of flammable liquid or gas being carried by fixed pipes across the United States. These pipes often carry petroleum-based products that are dangerous to health and safety of people as well as the environment if exposed in large quantities.
Meth Lab Incident	A meth lab incident most often occurs as an explosion or fire that results from an unwanted chemical reaction that occurs during the production of the illegal drug, methamphetamine. Unlike a typical structural fire, the chemicals involved in meth production can create explosions and the release of toxic chemical gases which present additional risk of harm to anyone in the vicinity. Exposure to these chemicals can cause anything from eye/skin irritation to long term respiratory diseases and death.
Pandemic	Pandemics are infectious and contagious outbreaks typically caused by a virus that originated in animals and spreads to humans. Common sources are swine and avian. There are several definitions of pandemic depending on the severity of the outbreak. It can be defined generally as an epidemic occurring over a large geographic area. Pandemic viruses reproduce and mutate rapidly. Unlike seasonal influenza, humans have no immunity to the mutated strains, making it especially deadly in populations.
Terror Threat	Terrorism is defined by FEMA as, "the use of force or violence against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion, or ransom." Terrorist acts may include assassinations, kidnappings, hijackings, bomb scares and bombings, cyber-attacks (computer-based), and the use of chemical, biological, nuclear and radiological weapons.

Wildfire	An uncontrolled fire burning in an area of vegetative fuels such as grasslands, brush, or woodlands. Heavier fuels with high continuity, steep slopes, high temperatures, low humidity, low rainfall, and high winds all work to increase risk for people and property located within wildfire hazard areas or along the urban/wildland interface. Wildfires are part of the natural management of forest ecosystems, but most are caused by human factors. Over 80 percent of forest fires are started by negligent human behavior such as smoking in wooded areas or improperly extinguishing campfires. The second most common cause for wildfire is lightning.
Cyber Attack	A cyber-attack is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems.

4.3 DISASTER DECLARATIONS

Disaster declarations provide initial insight into the hazards that may impact the MEMA District 8 Regional planning area. Since 1969, 38 residential disaster declarations have occurred in the region. This includes 20 events related to flooding, 20 events related to tornadoes, and 7 events related to hurricane and tropical storms, 1 related to winter weather, and 1 related to a pandemic (COVID-19). (Source: FEMA Disaster Declarations.)

TABLE: 4.2: MEMA DISTRICT 8 DISASTER DECLARATIONS BY COUNTY

SECTION 4: HAZARD IDENTIFICATION

Disaster Declaration Number	Year	Description	Covington	Forrest	Greene	Jefferson Davis	Jones	Marrion	Perry	Wayne
271	1969	Hurricane Camille	X	X	X	X	X	X	X	X
302	1971	Storms and Tornadoes					X		X	
318	1972	Heavy Rains and Flooding						X		
368	1973	Heavy Raines, Tornadoes, and Flooding					X	X		X
430	1974	Heavy Rains and Flooding	X	X	X	X	X	X	X	X
577	1979	Storms, Tornadoes, and Floods						X		
599	1979	Hurricane Frederic	X	X	X		X		X	X
618	1980	Storms, Flood, Mudslides, and Tornadoes		X				X		
678	1983	Severe Storms, Tornadoes, and Floods	X	X	X			X	X	
787	1987	Severe Storms, Tornadoes, and Floods					X			
859	1990	Severe Storms, Tornadoes, and Floods	X	X	X		X	X	X	
968	1992	Severe Storms, High Winds, and Tornadoes	X			X				
1251	1998	Hurricane Georges	X	X	X	X	X	X	X	X
1360	2001	Severe Storms and Tornadoes		X			X	X	X	
1459	2003	Severe Storms, Tornadoes, and Floods				X		X		X
1550	2004	Hurricane Ivan	X	X	X	X	X	X	X	X
1594	2005	Hurricane Dennis	X	X	X	X	X		X	X
1604	2005	Hurricane Katrina	X	X	X	X	X	X	X	X
1974	2008	Hurricane Gustav		X		X		X		
1837	2009	MS Severe Storms, Tornadoes, and Flooding			X	X				X
1972	2011	MS Severe Storms, Tornadoes, Straight-line Winds, and Associated Flooding			X					
4081	2012	Hurricane Isaac	X	X	X	X	X	X	X	X
4101	2013	MS Severe Storms, Tornadoes, and Flooding		X	X	X		X	X	X
4175	2014	MS Severe Storms, Tornadoes, and Flooding					X			X
4205	2015	MS Severe Storms and Tornadoes						X		
4268	2016	MS Severe Storms and Flooding	X	X	X	X	X	X	X	X
4295	2017	MS Severe Storms, Tornadoes, Straight-line Winds, and Associated Flooding		X					X	
4350	2017	Hurricane Nate			X					
4415	2018	MS Severe Storms, Tornadoes, and Flooding	X	X	X		X	X	X	X
4470	2019	MS Severe Storms, Straight-line Winds, and Flooding								
4528	2020	Covid-19	X	X	X	X	X	X	X	X
4536	2020	MS Severe Storms, Tornadoes, Straight-line Winds, and Flooding	X			X		X		
4538	2020	MS Severe Storms, Flooding, and Mudslides						X		
4551	2020	MS Severe Storms, Tornadoes, Straight-line Winds, and Flooding	X			X	X			X
4576	2020	Hurricane Zeta			X				X	X
4598	2021	MS Severe Winter Storms	X			X				
4626	2021	Hurricane Ida	X	X	X	X	X	X	X	X
4727	2023	MS Severe Storms, Tornadoes, and Straight-line Winds	X			X	X		X	X
Total: 38		TOTAL NUMBER OF DECLARATIONS PER COUNTY	19	19	19	19	20	23	20	20

Source: Declared Disasters: FEMA.gov

4.4 HAZARD EVALUATION

TABLE 4.3: DOCUMENTATION OF THE HAZARD EVALUATION PROCESS

Hazard Considered	Potential in District 8 (YES or NO)	How was this determination made?	Why was the determination made?
Avalanche	NO	* Review of US Forest Service National Avalanche Center Website * Review of State and District 8 HMP	* There is not risk or history of avalanche events in Mississippi, nor was it included in previous District 8 or the State HMP
Drought	YES	* Review of the US Drought Monitor website. * Review of the State HMP and Previous District 8 HMP	* The US Drought Monitor shows the area has experienced extreme droughts. * The State HMP and Previous District 8 HMP included drought
Hailstorm	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP	* NOAA NCEI reports several hail events in the area * Previous District 8 HMP included hailstorms
Heat Wave	YES	* Review of NOAA NCED Storm Events Database * Review of the State HMP and Previous District 8 HMP	* NOAA NCEI reports extreme heat events in the area * The State HMP and Previous District 8 HMP included extreme heat events
Hurricane & Tropical Storm	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP * Review of Presidential Disaster Declarations	* The State HMP and Previous District 8 HMP included Hurricanes and/or tropical storms * NCDC reports hurricane and tropical storm events in the MEMA District 8 * There have also been 11 disaster declarations in District 8 related to hurricanes and/or tropical storms
Lightning	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP * Review of Vaisala's National Lightning Detection Network's lightning statistics	* Previous District 8 HMP included Lightning * NCEI reports multiple lightning events for District 8 * According to Vaisala's U.S. NLDN, MEMA District 8 experiences an average of 12 to 20 lightning flashes per square miles per year.
Nor'easter	NO	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP	* Nor'easters are not profiled in the State HMP and Previous District 8 HMP * NCEI does not report any nor'easter activity in the area.
Tornado	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP * Review of Presidential Disaster Declarations	* The State HMP and Previous District 8 HMP included Tornadoes * NCEI reports over 200 tornado events in District 8 which has resulted in deaths, injuries, and millions in property damages. * District 8 has had 20 disaster declarations related to tornado events.
Severe Thunderstorm	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP * Review of Presidential Disaster Declarations	* Previous District 8 HMP included Severe Thunderstorm & high wind events. * NCEI reports approximately over 1000 thunderstorm events in District 8 * District 8 has had 28 disaster declarations related to severe storm events.
Hazard	Potential	How was this determination	Why was the determination

Considered	in District 8 (YES or NO)	made?	made?
Winter Storm & Freeze	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP * Review of Presidential Disaster Declarations	* The State HMP and Previous District 8 HMP included winter weather. * NCEI reports that District 8 counties have been effected by winter storms. * District 8 has had 1 disaster declarations related to winter weather.
Climate Change	YES	* Review of the State HMP	* Climate Change was included in the State HMP, but was not in the previous District 8 HMP.
Earthquake	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP * USGS Earthquake Hazards Program website	* The State HMP and Previous District 8 HMP included earthquakes * Earthquakes have occurred in and around the State in the past. The New Madrid and White River Fault lines which run through or near Mississippi have generated a magnitude 8.0 earthquake within the last 200 years. * USGS seismic hazard maps, show peak ground acceleration with 10% probability of exceedance in 50 years for District 8 is around 2-3%g.
Expansive Soils	YES	* Review of the State HMP and Previous District 8 HMP * Review of USGS Swelling Clays Map	* Expansive soils were addressed in the previous MEMA District 8 hazard mitigation plan. * According to USGS, the MEMA District 8 Region is located in an area that is underlain with “generally less than 50%” clay having high swelling potential.
Landslide	YES	* Review of the State HMP and Previous District 8 HMP * Review of USGS Landslide Incidence and Susceptibility Hazard Map	* The previous District 8 HMP includes landslide. * USGS landslide hazard maps indicate “low incidence” (less than 1.5% of the area is involved in land sliding) for all counties. However, local conditions may become more favorable for landslides due to heavy rain (Disaster Declarations; 618 and 4528).
Land Subsidence	NO	* Review of the State HMP and Previous District 8 HMP	* The previous District 8 HMP does not include land subsidence. The hazard was not chosen due geology of the region.
Sinkhole	NO	* Review of the State HMP and Previous District 8 HMP	* The previous District 8 HMP does not include sinkhole as a hazard because there is no significant historical record of the hazard in the region. * The hazard was not chosen due geology of the region.
Tsunami	NO	* Review of the State HMP and Previous District 8 HMP * Review of USGS Regional Assessment of Tsunami potential in the Gulf of Mexico	* The tsunami hazard is excluded from the state plan and previous District 8 HMP. * There is no historical record of tsunamis in the Gulf of Mexico.

Hazard	Potential	How was this determination	Why was the determination
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Considered	in District 8 (YES or NO)	made?	made?
Volcano	NO	* Review of the State HMP and Previous District 8 HMP * Review of USGS Volcano Hazards Program website	* The previous District 8 nor the State HMP include volcano. * There is no historical record of this hazard in the region, and there are no active volcanoes in Mississippi.
Dam & Levee Failure	YES	* Review of the State HMP and Previous District 8 HMP * Review of MS Division of Environmental Quality dam inventory	* Dam/levee failure is identified in the state plan as a limited hazard. * The previous MEMA District 8 Hazard Mitigation Plan address dam failure * Several dams in the region are classified as high hazard (high hazard is defined where dam failure may cause loss of life or serious damage).
Erosion	YES	* Review of the State HMP and Previous District 8 HMP	* Erosion is identified as a hazard in the previous MEMA District 8 Hazard Mitigation Plan. * Erosion is a natural process and continuous process that impacts the region.
Flood	YES	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP * Review of FEMA DFIRM flood data for the District 8 counties * Review of FEMA's NFIP Community Status Book and Community Rating System (CRS) * Review of historical disaster Declarations.	* The State HMP and Previous District 8 HMP included Floods * Much of the state is located in the 100-year floodplain. Further, flash floods are a common occurrence during rain storms. * NCEI reports that District 8 counties have been affected by hundreds of flood events, and these events caused millions in property damages. * There have been 20 disaster declarations associated with flooding in District 8.
Storm Surge	NO	* Review of NOAA NCEI Storm Events Database * Review of the State HMP and Previous District 8 HMP	* The previous MEMA District 8 Hazard Mitigation Plan does not include storm surge as a potential hazard. * No historical events were reported by NCEI. * Given the inland location of the MEMA District 8 Region, storm surge would not affect the area.
Hazardous Materials Incident	YES	* Review of the State HMP and Previous District 8 HMP * Review of EPA TRI sites Inventory * Review of PHMSA HAZMAT Incident Statistics database	* The previous MEMA District 8 Hazard Mitigation Plan include hazardous materials incident as a hazard. * There are 60 TRI sites located in the MEMA District 8 Region.
Pipeline Incident	YES	* Review of PHMSA HAZMAT Incident Statistics database * Review of Previous Region 8 Hazard Mitigation Plan	* The MEMA District 8 Region contains 1,248 miles of gas lines and 822 miles of hazardous liquid lines
Meth Lab Incident	YES	* Review of incident history based on local knowledge of past events and the potential for future events * Review of Previous Region 8 Hazard Mitigation Plan	* Although there has not been an abundance of major meth lab incidents in the region, the potential for an incident exists and responders should be aware and prepared.
Hazard Considered	Potential in District 8 (YES or NO)	How was this determination made?	Why was the determination made?

Pandemic	YES	* Review of the State HMP and Previous District 8 HMP	* Pandemic is discussed in the state plan. * Pandemic is not included in the previous MEMA District 8 Hazard Mitigation Plan, but was added to this plan.
Terror Threat	NO	* Review of the State HMP and Previous District 8 HMP	* The previous District 8 HMP does not include Terror Threat, and it was determined not to include the threat, at this time.
Wildfire	YES	* Review of the State HMP and Previous District 8 HMP * Southern Wildfire Risk Assessment (SWRA) Data * Review of Mississippi Forestry Commission website	* The State of MS Hazard Mitigation Plan identifies wildfire as a significant hazard and regular occurrence. * The previous MEMA District 8 Hazard Mitigation Plan addresses wildfire. * A review of Wildfire Hazard Potential (US Forrester Service) data indicates that there are areas of concern in the MEMA District 8 Region. Wildfire hazard risks will increase as low-density development along the urban/wildland interface increases.
Cyber-Attack	YES	* Review of the State HMP and Previous District 8 HMP	* Cyber Attack is included in the state plan and previous District 8 HMP.

4.5 HAZARD IDENTIFICATION RESULTS

TABLE 4.4: SUMMARY RESULTS OF THE HAZARD IDENTIFICATION AND EVALUATION PROCESS

ATMOSPHERIC HAZARDS		GEOLOGIC HAZARDS	
☐ Avalanche		☒ Earthquake	
☒ Drought		☒ Expansive Soils	
☒ Hail Storm		☒ Landslide	
☒ Heat Wave		☒ Land Subsidence	
☒ Hurricane & Tropical Storm		☐ Sinkhole	
☒ Lightning		☐ Tsunami	
☒ Tornado		☐ Volcano	
☒ Severe Thunderstorm		OTHER HAZARDS	
☒ Winter Storm & Freeze		☒ Hazardous Materials Incident	
☐ Nor'easter		☒ Pipeline Incident	
☒ Climate Change		☒ Meth Lab Incident	
HYDROLOGIC HAZARDS		☒ Pandemic	
☒ Dam & Levee Failure		☐ Terror Threat	
☒ Erosion		☒ Wildfire	
☒ Flood		☒ Cyber Terrorism	
☐ Storm Surge			

☒ = Hazard considered significant enough for further evaluation in the MEMA District 8 Regional Hazard Risk Assessment.

SECTION 5

HAZARD PROFILES

This section includes detailed hazard profiles for each of the hazards identified in the previous section (Hazard Identification) as significant enough for further evaluation in the *MEMA District 8 Regional Hazard Mitigation Plan*. It contains the following subsections:

- ★ 5.1 Overview
- ★ 5.2 Study Area

Hydrologic Hazards

- ★ 5.3 Flooding/Flash Flooding
- ★ 5.4 Dam & Levee Failure
- ★ 5.5 Erosion

Fire-Related Hazards

- ★ 5.6 Wildfire
- ★ 5.7 Drought/ Heat Wave

Geologic Hazards

- ★ 5.8 Earthquake
- ★ 5.9 Landslide
- ★ 5.10 Expansive Soil

Atmospheric Hazards

- ★ 5.11 Winter Weather Events
- ★ 5.12 Hurricane/Tropical Storm
- ★ 5.13 Thunderstorm (wind, hail, lightning)
- ★ 5.14 Tornado

Other Hazards

- ★ 5.15 Hazardous Materials Incident
- ★ 5.16 Cyber Attack
- ★ 5.17 Pandemic
- ★ 5.18 Climate Change

Conclusion

- ★ 5.19 Conclusions on Hazard Risk
- ★ 5.20 Final Determinations

44 CFR Requirement

44 CFR Part 201.6(c)(2)(i): The risk assessment shall include a description of the type, location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events

5.1 OVERVIEW

This section includes detailed hazard profiles for each of the hazards identified in the previous section (Hazard Identification) as significant enough for further evaluation in the *MEMA District 8 hazard risk assessment* by creating a hazard profile. Each hazard profile includes a general description of the hazard, its location and extent, notable historical occurrences and the probability of future occurrences. Each profile also includes specific items noted by members of the *MEMA District 8 Regional Hazard Mitigation Council (MEMA District 8 RHMC)* as it relates to unique historical or anecdotal hazard information for the counties in the Region or a participating municipality within it.

The following hazards were identified:

Flood-related Hazards

- Flooding/Flash Flooding
- Dam & Levee Failure
- Erosion

Fire-Related Hazards

- Wildfire
- Drought/ Heat Wave

Geologic Hazards

- Earthquake
- Landslide
- Expansive Soil

Atmospheric Hazards

- Winter Storm & Freeze
- Hurricane/Tropical Storm
- Thunderstorm (wind, hail, lightning)
- Tornado

Other Hazards

- Hazardous Materials Incident
- Cyber Attack
- Pandemic
- Climate Change

5.2 STUDY AREA

The *MEMA District 8 Region* includes six counties and fifteen incorporated jurisdictions. **Table 5.1** provides a summary table of the participating jurisdictions within each county. In addition, **Figure 5.1** provides a base map, for reference, of the *MEMA District 8 Region*.

TABLE 5.1: PARTICIPATING JURISDICTIONS IN THE MEMA DISTRICT 8 REGIONAL HAZARD MITIGATION PLAN

<i>Covington County</i>		<i>Jones County</i>	
Collins	Mount Olive	Ellisville	Laurel
Seminary		Sandersville	Soso
<i>Forrest County</i>		<i>Marion County</i>	
Hattiesburg	Petal	Columbia	
<i>Greene County</i>		<i>Perry County</i>	
Leakesville	McClain	Beaumont	New Augusta
State Line		Richton	
<i>Jefferson Davis County</i>		<i>Wayne County</i>	
Bassfield	Prentiss	Waynesboro	

FIGURE 5.1: MEMA DISTRICT 8 BASE MAP

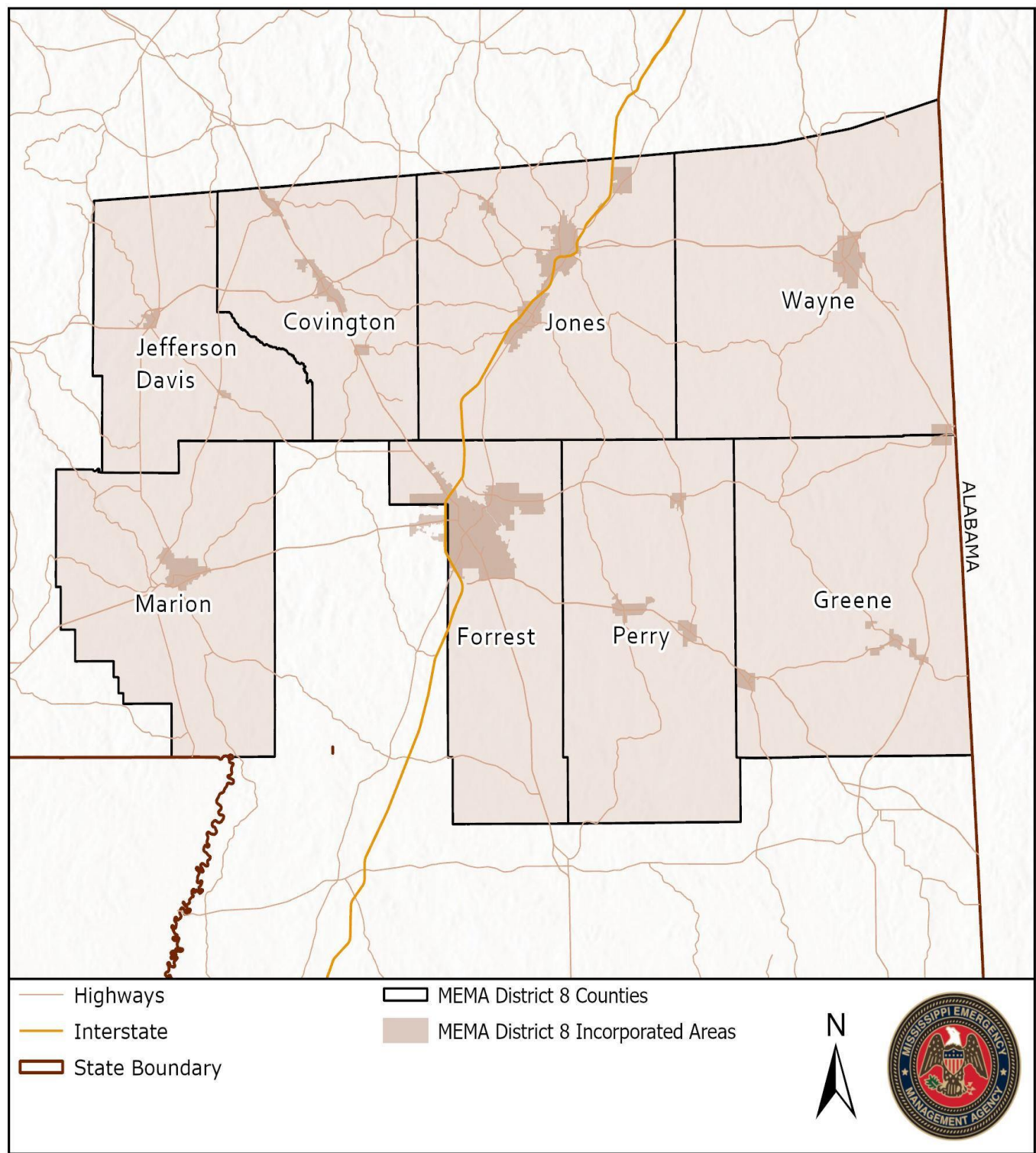


Table 5.2 lists each significant hazard for the *MEMA District 8 Region* and identifies whether or not it has been determined to be a specific hazard of concern for the municipal jurisdictions and the unincorporated areas of the counties. This is based on the best available data and information from the *MEMA District 8 Regional Hazard Mitigation Council*. (• = hazard of concern)

TABLE 5.2 SUMMARY OF IDENTIFIED HAZARD EVENTS IN THE MEMA DISTRICT 8 REGION

Jurisdiction	Flood	Erosion	Dam/ Levee Failure	Wildfire	Earthquake	Landslide	Expansive Soil	Drought/ Heat Wave	Winter Weather	Severe Storm (Wind, Hail, & Lightning)	Hurricane & Tropical Storms	Climate Change	HAZMAT	Pandemic	Pipeline Incident	Meth House Incident	Cyber Attack
<i>Covington County</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Collins	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Mount Olive	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Seminary	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Forrest County</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Hattiesburg	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Petal	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Greene County</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Leakesville	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
McClain	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
State Line	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Jefferson Davis</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Bassfield	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Prentiss	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Jones County</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ellisville	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Laurel	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Sandersville	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Soso	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Marion County</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Columbia	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Perry County</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Beaumont	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
New Augusta	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Richton	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<i>Wayne County</i>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Waynesboro	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

5.3 FLOOD

5.3.1 Background

Flooding is the most frequent and costly natural hazard in the United States and is a hazard that has caused more than 10,000 deaths since 1900. Nearly 90 percent of presidential disaster declarations result from natural events where flooding was a major component. Climate change is expected to continue to have significant impacts on future flood hazards, with effects varying temporally and spatially around the United States (Wuebbles et al. 2017; Reidmiller et al. 2018).

Floods generally result from excessive precipitation and can be classified under *two categories*: 1) **general floods**, precipitation over a given river basin for a long period of time along with storm-induced wave action, and 2) **flash floods**, the product of heavy localized precipitation in a short time period over a given location. The severity of a flooding event is typically determined by a combination of several major factors, including stream and river basin topography and physiography, precipitation and weather patterns, recent soil moisture conditions, and the degree of vegetative clearing and impervious surface.

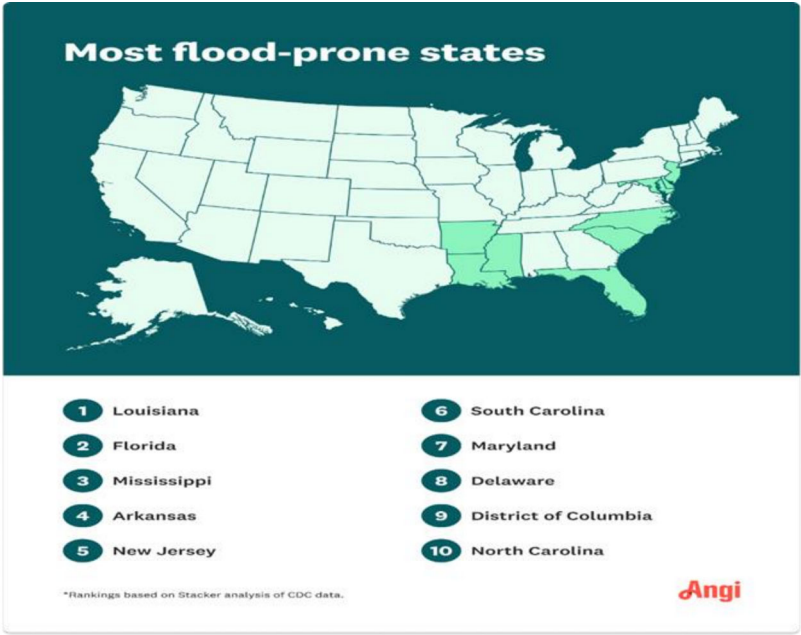
General floods are usually long-term events that may last for several days. The primary types of general flooding include *riverine*, *coastal*, and *urban flooding*. **Riverine flooding** is a function of excessive precipitation levels and water runoff volumes within the watershed of a stream or river. **Coastal flooding** is typically a result of storm surge, wind-driven waves, and heavy rainfall produced by hurricanes, tropical storms, and other large coastal storms. **Urban flooding** occurs where manmade development has obstructed the natural flow of water and decreased the ability of natural groundcover to absorb and retain surface water runoff.

Flash flooding is another type of flooding that can be associated with urban flooding. It is common in *urbanized areas* where much of the ground is covered by impervious surfaces. Most **flash flooding** occurs along mountain streams and is caused by slow-moving thunderstorms in a local area or by heavy rains associated with hurricanes and tropical storms. However, **flash-flooding events** may also occur from a dam or levee failure within minutes or hours of heavy amounts of rainfall, or from a sudden release of water held by retention basin or other stormwater control facility.

The periodic flooding of lands adjacent to rivers, streams and shorelines (land known as floodplain) is a natural and inevitable occurrence that can be expected to take place based upon established recurrence intervals. Floodplains are designated by the frequency of the flood that is large enough to cover them. For example, the 10-year floodplain will be covered by the 100-year flood and the 100-year floodplain by the 1,000-year flood. Flood frequencies such as the 100-year flood are determined by plotting a graph of the size of all known floods for an area and determining how often floods of a particular size occur. Another way of expressing the flood frequency is the chance of occurrence in a given year, which is the percentage of the probability of flooding each year. For example, the 100-year flood has a 1- percent annual chance of occurring in any given year, and the 500-year flood has a 0.2-percent annual chance of occurring in any given year.

As of 2024, Mississippi rates third in the United States for the most flood-prone states (**Figure 5.2**)

FIGURE 5.2: Top Flood-Prone States



© Taurus Flood: National Flood Services LLC 2024.

5.3.2 Location and Spatial Extent

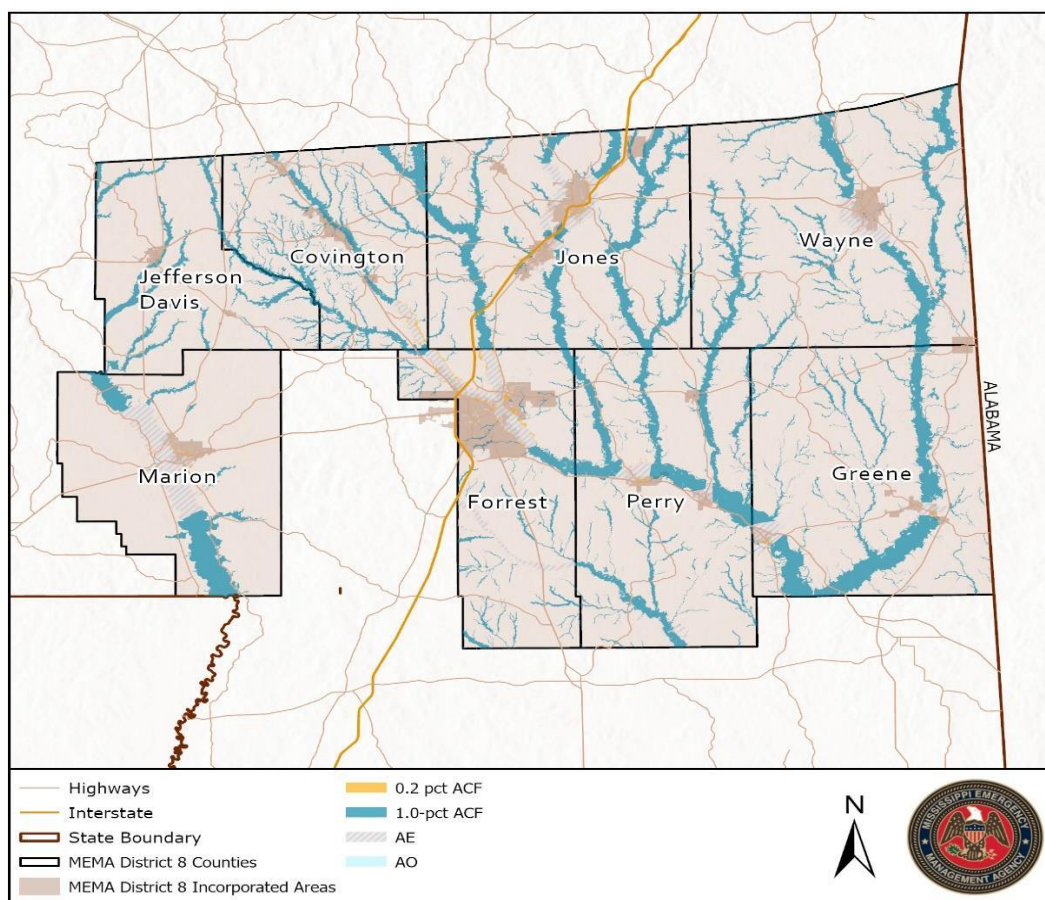
There are areas in the *MEMA District 8 Region* that are susceptible to flood events. Special flood hazard areas in the *MEMA District 8 Region* were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevations), and the 0.2-percent annual chance floodplain. According to GIS analysis, of the 4,003 square miles that make up the *MEMA District 8 Region*, there are approximately 629 square miles of land in zones A and AE (1-percent annual chance floodplain/100-year floodplain) and 5 square miles of land in the 0.2-percent annual chance floodplain (500-year floodplain). The county totals are presented below in **Table 5.3**.

TABLE 5.3: SUMMARY OF FLOODPLAIN AREAS IN THE MEMA DISTRICT 8 REGION

Location	100-Year Area (Square Miles)	500-Year Area (Square Miles)	DFIRM DATE	NFIP Insured SRL/RL
Covington County	80	1	4/5/2010	0
Forrest County	46	0	11/19/2021	28
Greene County	--	0	11/19/2021	0
Jefferson Davis County	46	0	12/17/2010	0
Jones County	137	1	11/19/2021	5
Marion County	83	2	11/19/2021	11
Perry County	115	1	11/19/2021	1
Wayne County	122	0	7/18/2011	0
MEMA District 8 Region Total:	629	5	--	45

These flood zone values account for 16.6 percent of the total land area in the *MEMA District 8 Region*. It is important to note that while *FEMA digital flood data* is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood-related losses often do occur outside of delineated special flood hazard areas. **Figure 5.3** illustrates the location and extent of currently mapped special flood hazard areas for the *MEMA District 8 Region* based on best available *FEMA Digital Flood Insurance Rate Map* (DFIRM) data.

FIGURE 5.3: SPECIAL FLOOD HAZARD AREAS IN THE MEMA DISTRICT 8 REGION



5.3.3 Historical Occurrences

Floods resulted in 20 disaster declarations in the *MEMA District 8 Region* between 1970 and 2024. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National Centers for Environmental Information reported a total of 448 events throughout the *MEMA District 8 Region* since 2000. A summary of these events is presented in **Table 5.4**. These events accounted for \$39.13M in property damage throughout the region. Specific information on flood events for each county, including date, type of flooding, and deaths and injuries, can be found in the jurisdiction-specific annexes.

TABLE 5.4: SUMMARY OF FLOOD OCCURRENCES IN THE MEMA DISTRICT 8 REGION

Location	Number of Events	Deaths	Injuries	Property Damage (2000-2024)
<i>Covington County</i>	65	0	0	\$3,177,000
<i>Forrest County</i>	107	0	0	\$9,142,000
<i>Greene County</i>	26	0	0	\$667,000
<i>Jefferson Davis County</i>	32	0	0	\$1,384,000
<i>Jones County</i>	105	0	0	\$11,060,000
<i>Marion County</i>	61	0	0	\$10,527,000
<i>Perry County</i>	27	0	0	\$1,962,000
<i>Wayne County</i>	21	0	0	\$1,212,000
MEMA District 8 Total:	444	0	0	\$39,130,000

Source: NCED/NOAA

5.3.4 Historical Summary of Insured Flood Losses

Recently, FEMA issued a directive that prevents states or local governments from sharing NFIP information such as rep loss or severe rep loss data with third parties. Third parties are considered as consultants, contractors, etc. As a result, for continuity of information so that the reader will have an idea of the historical occurrences along with the corresponding damage amounts, the decision was made to leave the existing information in the plan.

According to FEMA flood insurance policy records as of March 2023, there have been 800 flood losses reported in the *MEMA District 8 Region* through the National Flood Insurance Program (NFIP) since 1978, totaling nearly \$7.7 million in claims payments. A summary of these figures for each *MEMA District 8 county* is provided in **Table 5.5**. It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in the *MEMA District 8 Region* were either uninsured, denied claims payment, or not reported.

5.3.5 Repetitive Loss Properties

The updates to this section stayed the same unless the local jurisdiction requested the information from FEMA, as they are the only ones who can receive the information due to HIPA Laws. The inform was requested from each jurisdiction. Information was updated in this section as provided by the local jurisdiction. As a result, this information is the best and most accurate that were provided for historical purposes.

FEMA defines a repetitive loss property as any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period, since 1978. A repetitive loss property may or may not be currently insured by the NFIP. Currently there are over 140,000 repetitive loss properties nationwide.

Currently (as of May 2023), there are 125 non-mitigated repetitive loss properties located in the *MEMA District 8 Region*, which accounted for 371 losses and more than \$4.3 million in claims payments under the NFIP. The average claim amount for these properties is \$11,657. Of the 125 properties, 88 are single family, 7 are assumed condominiums, 1 is other residential, and 29 are non-residential. Without mitigation, these properties will likely continue to experience flood losses. **Table 5.6** presents a summary of these figures for the *MEMA District 8 Region*. Detailed information on repetitive loss properties and NFIP claims and policies can be found in the jurisdiction-specific annexes. Currently, this remains the best available data.

TABLE 5.5: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSS PROPERTIES IN MEMA DISTRICT 8 REGION

Location/ County	Insured Flood Losses		Repetitive Loss Properties	Repetitive Loss Properties		
	Flood Losses	Claim Payments		Number of Properties	Number of Losses	Total Payments
<i>Covington</i>	48	\$528,810		8	18	\$291,033
<i>Forrest</i>	23	\$243,475		22	74	\$1,379,010
<i>Greene</i>	--	\$243,475		0	0	\$0
<i>Jefferson Davis</i>	2	\$4,613		0	0	\$0
<i>Jones</i>	108	\$681,965		20	55	\$1,070,226
<i>Marion</i>	551	\$5,950,261		91	282	\$3,563,949
<i>Perry</i>	67	\$258,797		11	26	\$116,001
<i>Wayne</i>	24	\$258,596		3	11	\$118,827
Total:	823	\$7,926,517		155	466	\$6,539,046

5.3.6 Historical Summary of Flash Flood/Flood Losses Since Last Update By County. (1/1/2019 – 12/31/2024)

Covington County—Covington County had a total of 12 flash flooding events since the last update totaling \$91 thousand in damages. (Table 5.7)

Forrest County—Forrest County had a total of 18 flash flooding events since the last update totaling \$2.632M in damages.

Greene County—Greene County had a total of 2 flash flooding events since the last update totaling \$0 in damages.

Jefferson Davis County—Jefferson Davis County had a total of 5 flash flooding events since the last update totaling \$285 thousand in damages. (Table 5.7)

Jones County—Jones County had a total of 17 flash flooding events since the last update totaling \$175 thousand in damages.

Marion County—Marion County had a total of 7 flash flooding events since the last update totaling \$211 thousand in damages.

Perry County—Perry County had a total of 5 flash flooding events since the last update totaling \$10 thousand in damages.

Wayne County—Wayne County had a total of 2 flash flooding events since the last update totaling \$0 in damages. (Table 5.7)

TABLE 5.7 FLASH FLOODING EVENTS BY COUNTY (2019-2023)

Covington County: Total Loss \$91 Thousand				
Location	Date	Loss	Cause	Impact
Ora	4/13/2019	\$3,000	During the late afternoon of April 13 and into the evening and overnight, a strong spring storm system pushed across the Lower Mississippi Valley region and brought widespread severe weather, a regional tornado outbreak, and flash flooding.	• Heavy rainfall was also impactful and multiple inches of rain quickly fell across some locations and caused flash flooding, some of it extensive. • Flooding occurred near Highway 49 and Sunset Road.
Collins	4/18/2019	\$3,000	During the daytime hours of April 18th, a developing storm system helped generate a large line of thunderstorms which then moved across the region.	• Three parts of Evergreen Church Road were under water.
Gandsi	7/21/2019	\$2,000	Strong thunderstorms produced flash flooding.	• Water flowed across Hwy 49 between Collins and Seminary.
Pickering	1/13/2020	\$15,000	A warm front was situated across southern Mississippi during the evening of January 13th. This, combined with a passing disturbance and anomalous moisture, supported numerous thunderstorms and heavy rainfall that produced widespread rainfall between 2 and 6 inches with the heavies corridor right across the central portion of the forecast area.	• Water was across part of Highway 49 near the Mooney Branch of Okatoma Creek. Part of Old Highway 49 was flooded south of Seminary near the Seminary Canoe Rental. Part of MS Highway 589 was flooded near Seminary.
County	8/25/2020	\$9,000	Tropical moisture associated with Tropical Storm Marco helped to initiate showers across southeast Mississippi. Some of this rain brought flash flooding to the region.	Flooding occurred on Yates Road and on Mt. Horeb Road.
Collins Airport	8/28/2020	\$3,000	Hurricane Laura made landfall along the Louisiana coast near Lake Charles in the early morning hours of August 27.	• Rainfall amounts up to four inches occurred along and west of the Mississippi River and this resulted in some minor flooding. • Minor street flooding occurred in Collins. Minor flooding also occurred on Knights Road southwest of Collins.
Hot Coffee	3/16/2021	\$2,000	A stalled front, combined with a warm and moist airmass, led to the development of showers and thunderstorms across the region.	Water was over Highway 37 in northern Covington County.

Williamsburg	6/6/2021	\$25,000	As an upper-level low pressure system moved over central parts of the country, a few storm systems moved across the state of Mississippi.	Over 200 homes were flooded in portions of Bolivar and Sunflower Counties. A few rounds of heavy rain caused flash flooding across numerous roads in various parts of Covington County. A video showed water flowing across a portion of McDonald Chapel Road south of Collins.
Ora	8/30/2021	\$20,000	Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30.	Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding. Heavy rainfall from Tropical Storm Ida resulted in flash flooding that washed out a culvert on Ora Williamson Road.
Collins	3/18/2022	\$1,000	Showers and thunderstorms developed in the warm, moist airmass south of a warm front.	Flash flooding occurred as storms began to move over the same region. Kola Road was flooded near the bridge.
Williamsburg	7/22/2022	\$2,000	Slow moving thunderstorms on the afternoon of July 22nd resulted in flash flooding in Covington County near Collins.	Flash flooding occurred southwest of Collins near the Williamsburg community.
Arbo & Gandsi	8/24/2022	\$6,000	A low-pressure system spinning over northern Louisiana and southern Arkansas brought several rounds of showers and thunderstorms producing heavy rain to Mississippi August 24th through 25th.	The result was widespread flooding of roads, homes, and businesses around the state. A few roads flooded in the southern part of the county including Williams Road near Highway 588 and Ed Mayfield Road.

Forrest County \$2.632 Million

Location	Date	Loss	Cause	Impact
Petal & County	1/23/2019	\$10,000	A low-pressure system moved east across the region, bringing widespread rainfall and a few strong to severe thunderstorms. Training thunderstorms across the Pine Belt led to flash flooding.	- Streets were flooded in West Hattiesburg, and runoff from heavy rain flooded the area near the intersection of Woody Clark Road and Batson Road. - Flash flooding occurred along McCall Street. - Jackson Avenue was closed due to flash flooding in Petal.
Hattiesburg	4/18/2019	\$12,000	- During the daytime hours of April 18th, a developing storm system helped generate a large line of thunderstorms which then moved across the region. - The combination of multiple environmental features, set the stage for 43 tornadoes to occur over the forecast area. This ranks as 4th most for a single event across the forecast area. In addition to the tornadoes, widespread wind damage occurred as well.	The combination of multiple environmental features, set the stage for 43 tornadoes to occur over the forecast area. This ranks as 4th most for a single event across the forecast area. In addition to the tornadoes, widespread wind damage occurred as well. Roads were flooded across Hattiesburg and Petal.
Petal & Glendale	5/09/2019	\$3,000	A slow-moving low-pressure system moved northeast from the High Plains region toward the Great Lakes between May 8th and 9th.	Water covered the westbound lanes of West Fourth Street near the Century Park Residence Halls on the University of Southern Mississippi campus.
County	5/11/2019	\$1,735,000	After a cold front stalled across the ArkLaMiss region the day before, the remnant stationary front served as a focus for the development of widespread showers and thunderstorms on May 11th.	- Several roads across southern Forrest County were flooded including portions of Old Highway 49 between Brooklyn and Maxie. A few roads were also washed out including Churchwell Road, Tower Road, Entekin Road, Worth Nall Road, and Bud Myers Road. - Rockhill Brooklyn Road and A B Simmons Road were closed due to water covering the roadways after an additional round of heavy rain moved through. - Old Highway 49 was closed near Brooklyn due to flash flooding along several portions of it from near Bud Myers Road south to near Yeaton Spur Road.
Petal	7/14/2019	\$1,000	Hurricane Barry made landfall in Louisiana and quickly weakened to a tropical storm as it moved inland across the region. The storm brought severe storms and flash flooding to the region on July 14th.	Jackson Avenue was closed in the city of Petal due to about 2 feet of water on the street.
Hattiesburg	2/10/2020	\$2,000	Anomalous moisture was in place across the ArkLaMiss region as a stationary front was draped across the area.	- Some locations saw locally higher amounts of nine to ten inches. Around I-20, two to four inches of rain fell, while near an inch fell across the Highway 84 corridor. - Flooding occurred along Highway 49 between Hardy Street and Old Highway 42.

Hattiesburg	5/27/2020	\$2,000	Afternoon showers and thunderstorms occurred across the region as a warm, moist and unstable airmass was in place.	Intermittent flooding occurred along Hardy Street between Highway 49 and 38th Avenue.
Brooklyn	4/24/2021	\$7,000	Showers and thunderstorms developed in association with a frontal system that moved through the region.	Water covered a road and flowed over a bridge near Brooklyn.
Carnes	6/19/2021	\$10,000	Heavy rainfall associated with Tropical Storm Claudette produced flash flooding in southeast Mississippi.	Heavy rain associated with Tropical Storm Claudette caused flash flooding in far southern portions of Forrest County. A culvert along Joe Lee Road washed out, several roads in Brooklyn including Main Street and 4th street were flooded, and John Morris Road near Carnes was flooded over.
Hattiesburg	6/24/2021	\$35,000	Scattered thunderstorms in late June produced isolated damaging winds and flash flooding.	Hardy Street from 31st Avenue to 38th Avenue was flooded, and three vehicles were stranded in floodwaters beneath the 4th Street bridge.
Hattiesburg	8/30/2021	\$5,000	Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30.	• Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding. • Heavy rainfall from Tropical Storm Ida resulted in flash flooding in the city of Hattiesburg. Water covered the roadway at the intersection of Highway 49 and West Pine Street as well as at North 28th Avenue and Sims Road.
County	2/3/2022	\$4,000	A warm and anomalously moist airmass was in place across Mississippi ahead of a cold front. This front moved through the region early on the 3rd, with arctic air spilling south behind it. Ahead of the front, showers and thunderstorms developed, with some being severe and producing damaging winds. Given the high moisture content present, locally heavy rainfall occurred and resulted in localized flash flooding.	• Rainfall amounts of four to over five and a half inches fell in portions of the Pine Belt. • Heavy rain fell across the Hattiesburg area. Storm totals around 4.7 to 5.7 inches fell across portions of the area. This resulted in instances of flash flooding across Hattiesburg. Flash flooding occurred on Annie Christie Lane and Collins Street in Hattiesburg, as well as on Chester Brown Road. Flooding occurred on Highway 49 and W 7th Avenue.
County	3/18/2022	\$1,000	Showers and thunderstorms developed in the warm, moist airmass south of a warm front.	• Flash flooding occurred as storms began to move over the same region. • Barrontown Road was flooded.
Riverside	4/05/2022	\$15,000	A low-pressure system moving east along the Arkansas Louisiana border helped to organize a line of severe thunderstorms early in the morning of April 5th.	After 2 to 3 inches of heavy rain fell over the Hattiesburg area, several streets in downtown mainly south of Gordons Creek were affected by flash flooding. Some roads were closed for several hours as waters pooled and then receded. This included areas near the intersection of Hardy Street and Williams Street, Bay Street, the intersection of Katie Avenue and Charles Street, the intersection of 25th Avenue and 7th Street, a portion of US Highway 49 near West Pine Street, and Short Bay Street.
Riverside	4/17/2022	\$15,000	Several rounds of severe thunderstorms produced large hail, damaging wind gusts, and tornadoes through the day on April 17th.	US Highway 49 at the 4th Street overpass was closed due to flooding, and the intersection of 7th St. and 25th St. was closed due to flooding.
Hattiesburg	6/10/2022	\$10,000	Storms occurred on June 10 th which lead to heavy rain and flash flooding.	• South 15th Avenue was closed due to Flash Flooding. • Barter street and South 17th Avenue were closed due to flash flooding. Vehicles were also stalled along South 17th Avenue.
Hattiesburg & Petal	8/24/2022	\$475,000	A low-pressure system spinning over northern Louisiana and southern Arkansas brought several rounds of showers and thunderstorms producing heavy rain to Mississippi August 24th through 25th.	• This resulted in widespread flooding of roads, homes, and businesses around the state. • Flooding at Klondyke Street and Hardy St. • Flooding reported at the University of Southern Mississippi. Flooding on Hardy Street between 10th and 11th street and near 17th street in Hattiesburg. • A car flooded and high-water rescue on Highway 49 in Hattiesburg. • There was flooding at Sherry Lynn Drive and Oaklawn drive and also on Robinson Drive and Leeville Road in Petal

Hattiesburg	12/14/2022	\$300,000	Severe thunderstorms moved across Mississippi during the evening and overnight hours of the 13th into the 14th, with flash flooding across areas of the Delta and several tornadoes.	Heavy rain with thunderstorms across Hattiesburg resulted in numerous reports of flash flooding, with homes and vehicles impacted by high water. Water rescues from stalled vehicles occurred along Hardy street with McLeod street and Main streets blocked due to high water, flooding along Mamie street, with reports of flooding across numerous other roads across town including near Providence Street and Old highway 42.
Greene County: \$0				
Location	Date	Loss	Cause	Impact
Royce & Neely	1/23/2019	\$0	Slow moving thunderstorms produced heavy rain which caused flooding in southeast Mississippi.	• Heavy rain caused flooding on Highway 57 south of McLain. • Water over Highway 57 just north of Neely Rd.
Avera	8/25/2022	\$0	A wet pattern continued across the Gulf Coast as additional heavy rain led to numerous flooding reports across southwest Alabama and southeast Mississippi.	Water over the roadway near Indian Hill Road.
Jefferson Davis County: \$285,000				
Location	Date	Loss	Cause	Impact
Prentiss & County	8/25/2020	\$110,000	Tropical moisture associated with Tropical Storm Marco helped to initiate showers across southeast Mississippi. Some of this rain brought flash flooding to the region.	• In the County water damage occurred to a home on White Rogers Road. Four homes received some water damage on Ponderosa Road, and water was over Sumrall Road. Water was over Clem School Road and culverts were washed away. • In Prentiss water overflowed the banks of White Sands Creek and covered Dykes Road and South Pleasant Hill Road. Water also covered Granby Road and Mt. Zion Road.
Gwinville	3/25/2021	\$15,000	Vigorous wind shear as well as ample instability would combine to generate thunderstorms that had the potential for violent severe weather. Storms developed during the afternoon, bringing damaging winds and flash flooding to the region.	A culvert along Williamson Mill Road was washed out.
Hathorn	6/6/2021	\$25,000	As an upper-level low pressure system moved over central parts of the country. These brought rounds of severe thunderstorms and heavy rain to the region.	• Over 200 homes were flooded in portions of Bolivar and Sunflower Counties. • Raynes Road was completely covered in water, and a portion was washed out by floodwaters.
Prentiss & Carson	4/17/2022	\$15,000	Several rounds of severe thunderstorms produced large hail, damaging wind gusts, and tornadoes through the day on April 17th.	• A portion of Choctaw Road was flooded. • In Prentiss the intersection area of MS Highway 42 and MS Highway 13 was flooded.
Prentiss	8/24/2022	\$120,000	A low-pressure system spinning over northern Louisiana and southern Arkansas brought several rounds of showers and thunderstorms producing heavy rain to Mississippi August 24th through 25th.	• This resulted in widespread flooding of roads, homes, and businesses around the state. • Two businesses in Prentiss flooded.
Jones County : \$175,000				
Location	Date	Loss	Cause	Impact
County	1/23/2019	\$3,000	A low-pressure system moved east across the region, bringing widespread rainfall and a few strong to severe thunderstorms. Thunderstorms across the Pine Belt led to flash flooding.	• Flash flooding led to rising water which threatened a home along Overt Moselle Road. • Flash flooding led to water flowing across George Boutwell Road.
Laurel	2/20/2019	\$15,000	Heavy rain and thunderstorms developed as a frontal system stalled along the coast and a series of disturbances moved through the region. Some locations received 10 to over 15 inches of rain, resulting in significant flooding.	Several streets were closed due to flooding.

Hoy	5/11/2019	\$2,000	After a cold front stalled across the ArkLaMiss region the day before, the remnant stationary front served as a focus for the development of widespread showers and thunderstorms on May 11th. Following several previous rounds of heavy rainfall across the region, heavy rain associated with these showers and storms produced flooding and flash flooding across mainly eastern and southeastern Mississippi.	Matthews Road off of MS Highway 15 was closed due to flash flooding.
Laurel & Soso	7/14/2019	\$7,000	Hurricane Barry made landfall in Louisiana and quickly weakened to a tropical storm as it moved inland across the region. The storm brought severe storms and flash flooding to the region on July 14th.	• Water covered Feed Mill Road in Soso. • In Laurel flash flooding occurred on Leontyne Price Boulevard between I-59 and Home Street. Home Street was flooded from Leontyne Price Boulevard to South Magnolia Street.
Laurel & Moselle	1/13/2020	\$7,000	A warm front was situated across southern Mississippi during the evening of January 13th. This, combined with a passing disturbance and anomalous moisture, supported numerous thunderstorms and heavy rainfall that produced widespread rainfall between 2 and 6 inches with the heaviest corridor right across the central portion of the forecast area.	• Some roads around Moselle were flooded and impassable. • Several roads around Laurel were flooded and impassable.
Laurel	8/28/2020	\$10,000	Hurricane Laura made landfall along the Louisiana coast near Lake Charles in the early morning hours of August 27, which led to minor flooding in the area.	Moderate street flooding caused a car to stall along 15th Avenue.
Ellisville & Laurel	2/11/2021	\$6,000	Flash flooding occurred due to heavy rain.	Multiple streets were flooded, and ditches were full over in the city of Ellisville, and multiple streets were flooded in Laurel.
Laurel	3/25/2021	\$5,000	Storms developed during the afternoon, bringing damaging winds and flash flooding to the region.	Flooding occurred east of the Interstate exchange in Laurel.
Laurel	6/6/2021	\$50,000	As an upper-level low pressure system moved over central parts of the country, a few storm systems moved across the state of Mississippi.	Street flooding occurred in Laurel, especially in the southern part of the city. A few cars were flooded.
County	8/30/2021	\$15,000	• Major hurricane Ida made landfall as a strong category four hurricane August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi. • Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding.	Heavy rainfall from Tropical Storm Ida resulted in flash flooding across Jones County. The intersection of Monroe Road and Emmons Road was underwater as well as a one eight mile stretch of RV Lindley Road.
Laurel & County	3/18/2022	\$12,000	Showers and thunderstorms developed in the warm, moist air mass south of a warm front. Flash flooding occurred as storms began to move over the same region.	• Flooding occurred in Laurel on Leontyne Price Blvd and Pendorff road. Multiple streets were flooded in town. A few vehicles stalled out from driving in flooded roads. • Flooding occurred near the intersection of Burnt Bridge Road and Palmer Road in Ellisville.
Laurel	7/4/2022	\$5,000	Numerous showers and thunderstorms developed across the area on the afternoon of July 4th. Some of these storms had torrential downpours which resulted in flash flooding in portions of Jones and Rankin Counties.	Multiple streets were flooded in Laurel.
Moselle	8/24/2022	\$5,000	A low-pressure system brought rounds of showers, thunderstorms, and heavy rain to MS which led to flash flooding.	A few roads were flooded around Moselle. This resulted in widespread flooding of roads, homes, and businesses around the state.
Laurel	6/16/2023	\$30,000	An upper-level disturbance triggered a cluster of thunderstorms along a stationary front boundary. These storms intensified and grew upscale into an intense mesoscale convective system (MCS) as they moved east-southeast along an axis of increased moisture and strong instability that extended toward the Central Gulf Coast.	A few cars were submerged in the Teresa Street underpass in Laurel.
County	6/17/2023	\$1,000	Convergence of moisture along a stationary front in southern Mississippi triggered thunderstorms during the day on June 17th.	A portion of Dome House Road in the Glade community was flooded.
Laurel	7/11/2023	\$1,000	Scattered storms developed each afternoon. A few storms became strong to severe.	Multiple incidences of street flooding were observed in the Laurel area

Hoy	1/24/2024	\$1,000	With an upper-level trough of low pressure situated over Central Plains and a very moist air mass extending north through the Mississippi River Valley, training showers and thunderstorms produced heavy rain and flooding over parts of Mississippi.	Creeks and fields were flooding.
Marion County: \$211,000				
Location	Date	Loss	Cause	Impact
Columbia & County	7/4/2020	\$5,000	An area of intense and slower moving storms produced some flash flooding around the Columbia area in southeast Mississippi.	Heavy rain caused flash flooding on several roads on the western side of downtown Columbia and toward the Foxworth area.
Columbia & County	7/8/2020	\$3,000	Scattered thunderstorms developed in an unstable air mass across Mississippi during the late morning of July 8th.	• Water blocked a portion of South High School Road in Columbia. • Water blocked part of Pine Burr Road near MS Highway 13 South.
Columbia	2/11/2021	\$118,000	Flash flooding occurred due to heavy rain.	• Flash flooding occurred around Columbia. Flooding occurred at Eagle Day Avenue and Highway 98. A furniture store in this area had water enter the building. Flooding occurred at Pineview Drive and at Meadowood Drive. In both of these locations, water entered a home. Multiple city streets were flooded in Columbia as well as parking lots under water and water entered a home. Flash flooding reported at Meadowood Road in Downtown Columbia. Flash flooding reported at Pineview Drive. Water began entering a residential home. Multiple city streets flooded along with parking lots under water. Water is also inside one home of a special needs person. Fire department and the police deployed sandbags. • Portions of Columbia Purvis Road were underwater. A vehicle got stuck and required a water rescue. • A portion of Highway 13 was underwater in the county.
Columbia	4/10/2021	\$3,000	Showers and thunderstorms developed in association with a frontal system moving through the region.	Water covered roads in Columbia.
Columbia	3/18/2022	\$2,000	Showers and thunderstorms developed in the warm, moist airmass south of a warm front.	Multiple streets were flooded in Columbia, some were closed.
Columbia	4/5/2022	\$5,000	A low-pressure system moving east along the Arkansas Louisiana border helped to organize a line of severe thunderstorms early in the morning of April 5th.	Several roads were flooded in Columbia.
Columbia	1/24/2024	\$75,000	With an upper-level trough of low pressure situated over Central Plains and a very moist air mass extending north through the Mississippi River Valley, training showers and thunderstorms produced heavy rain and flooding over parts of Mississippi.	Flood prone roads were covered with 4 to 8 inches of water, and other roads were closed with cars stalled in floodwaters.
Perry County: \$10,000				
Location	Date	Loss	Cause	Impact
New Augusta & County	5/11/2019	\$10,000	A stalled front just to the northwest of the area combined with several upper-level disturbances moving across created several rounds of heavy rain.	• In the county, Lake Road was closed due to a possible washout. Janice Brooklyn Road was closed due to flooding. Water over several road including Bailey Road, McKenzie Road and Old River Road. • Flooding along Benndale Road in Janice. • Water over the Wingate Road near New Augusta School.

Janice	10/28/2020	\$0	Hurricane Zeta made landfall in southeast Louisiana during the late afternoon hours. It brought heavy rain that lead to flash flooding.	• Perry County MS: The county experienced sustained strong tropical storm force winds with frequent gusts to hurricane force. This resulted in significant tree and power line damage. Numerous to widespread power outages were reported. 36 homes were damaged, experiencing either roof damage or damage due to downed trees. • Two roads washed out due to flash flooding.
Tallahala	6/6/2021	\$0	Strong thunderstorm developed in southeast Mississippi and produced locally heavy rain along with strong wind gusts that caused some damage.	Heavy rain caused pumping station road to be closed due to culverts washing out.
Runnelstown	2/3/2022	\$0	Heavy rain from slow moving storms also caused flooding in some areas.	Heavy caused water to cover the road on Buck Creek Loop, Henry James Road and Corinth Church Road.
Rhodes	8/24/2022	\$0	A very favorable pattern for heavy rain combined with already wet ground conditions led to development of heavy rain and flooding across the area.	Heavy rains caused water to cover the road on Good Hope Church Road.

Wayne County: \$0

Location	Date	Loss	Cause	Impact
Waynesboro	7/13/2022	\$0	Slow moving thunderstorms caused heavy rain which produced flooding in southeast Mississippi.	Heavy rain caused flooding on several streets in Waynesboro.
County	8/25/2022	\$0	A wet pattern continued across the Gulf Coast as additional heavy rain led to numerous flooding reports across southwest Alabama and southeast Mississippi.	• Water over the roadway near Winchester Cross Road near Highway 45. • Water over the roadway on Bud Stevens Roads off Big Creek Road. • Heavy rain caused water to cover several roads in southern Wayne County.

5.3.7 Possible Effects of Climate Change

Flooding is the most common and costly natural disaster in the United States. The risk of flooding is constantly increasing due to climate change: rising sea levels, wildfires, changing precipitation patterns and more. Flooding is an increasing issue as our climate changes. Compared to the beginning of the 20th century, there are both stronger and more frequent abnormally heavy precipitation events across most of the United States. From 1980–2000, the NFIP paid almost \$9.4 billion in flood insurance claims. From 2000–2020, that number increased over 660% to \$62.2 billion due to the changing climate. Since 1996, 99% of counties in the U.S. have experienced a flood, but only 4% of homeowners have flood insurance.

Climate Change: A change in the state of the climate that can be identified by changes in the mean and/or variability of its properties and that persists for an extended period, typically decades or longer. **Climate change** may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions, persistent human-driven changes in the composition of the atmosphere or in land use (USGCRP 2022-2031 Strategic Plan).

The size, or magnitude, of flood events is influenced by how much water enters the waterway upstream—and how quickly. Flood frequency largely depends on the frequency of weather events. Large flood events can damage homes, roads, bridges, and other infrastructure; wipe out farmers' crops; and harm or displace people. Although regular flooding helps to maintain the nutrient balance of soils in the flood plain, larger or more frequent floods could disrupt ecosystems by displacing aquatic life, impairing water quality, and increasing soil erosion. By inundating water treatment systems with sediment and contaminants, and promoting the growth of harmful microbes, floods can directly affect the water supplies that communities depend on.

Climate change may also cause river floods to become larger or more frequent than they used to be in some places yet become smaller and less frequent in other places. As warmer temperatures cause more water to evaporate from the land and oceans, changes in the size and frequency of heavy precipitation events may in turn affect the size and frequency of river flooding. Changes in streamflow, the timing of snowmelt, and the amount of snowpack that accumulates in the winter can also affect flood patterns.

"Heavy precipitation" refers to instances during which the amount of rain or snow experienced in a location substantially exceeds what is normal. What constitutes a period of heavy precipitation varies according to location and season.

Climate change can affect the intensity and frequency of precipitation. Warmer oceans increase the amount of water that evaporates into the air. When more moisture-laden air moves over land or converges into a storm system, it can produce more intense precipitation—for example, heavier rain and snow storms. The potential impacts of heavy precipitation include crop damage, soil erosion, and an increase in flood risk due to heavy rains—which in turn can lead to injuries, drownings, and other flooding-related effects on health. In addition, runoff from precipitation can impair water quality as pollutants deposited on land wash into water bodies.

Heavy precipitation does not necessarily mean the total amount of precipitation at a location has increased—just that precipitation is occurring in more intense events. However, changes in the intensity of precipitation, when combined with changes in the interval between precipitation events, can also lead to changes in overall precipitation totals.

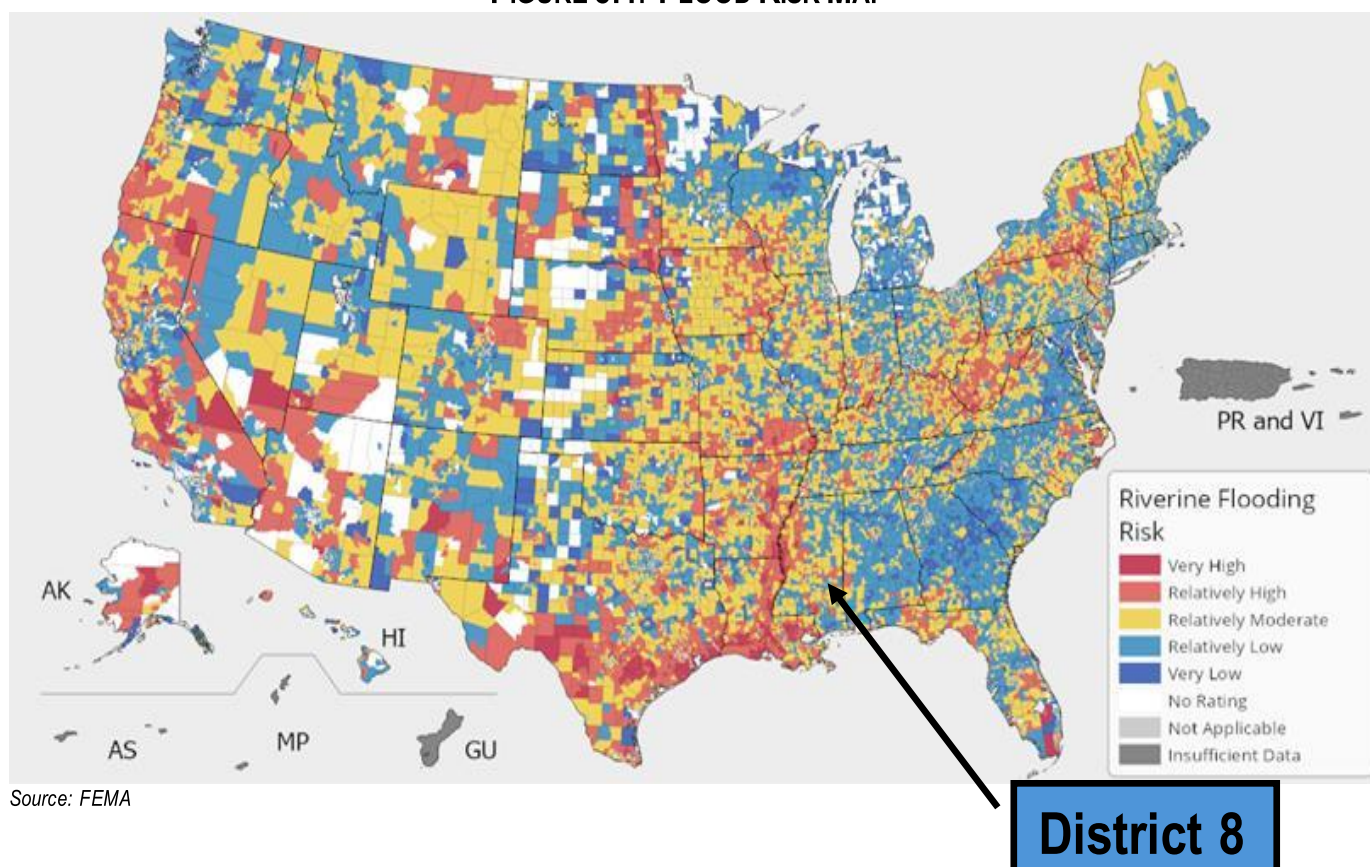
<https://www.epa.gov/climate-indicators/climate-change-indicators-river-flooding>

5.3.8 Probability of Future Occurrences

Due to the unpredictable nature of this hazard, flood events will remain a threat in the *MEMA District 8 Region*, and the probability of future occurrences will remain likely (between 10 and 100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the region. For example, the eastern half of the region has more floodplain and thus a higher risk of flood than the western half of the region. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

FIGURE 5.4: FLOOD RISK MAP



5.4 DAM AND LEVEE FAILURE

5.4.1 Background

Worldwide interest in dam and levee safety has risen significantly in recent years. Aging infrastructure, new hydrologic information, and population growth in floodplain areas downstream from dams and near levees have resulted in an increased emphasis on safety, operation, and maintenance.

There are approximately 80,000 dams in the United States today, the majority of which are privately owned. Other owners include state and local authorities, public utilities, and federal agencies. The benefits of dams are numerous: they provide water for drinking, navigation, and agricultural irrigation. Dams also provide hydroelectric power, create lakes for fishing and recreation, and save lives by preventing or reducing floods.

Though dams have many benefits, they also can pose a risk to communities if not designed, operated, and maintained properly. In the event of a dam failure, the energy of the water stored behind even a small dam is capable of causing loss of life and great property damage if development exists downstream. If a levee breaks, scores of properties may become submerged in floodwaters and residents may become trapped by rapidly rising water. The failure of dams and levees has the potential to place large numbers of people and great amounts of property in harm's way.

In order to assess the risk posed by a dam or levee failure, the Mississippi Department of Environmental Quality (MDEQ) keeps an inventory of dam inundation maps based on breach analyses conducted for high hazard dams. These maps, as well as existing plans, studies, reports and technical information, are available to the jurisdiction and dam owners as part of the existing MDEQ Emergency Action Planning efforts.

5.4.2 Location and Spatial Extent

The Mississippi Division of Environmental Quality provides information on dams including a hazard potential classification. There are three hazard classifications—**high**, **significant**, and **low**—that correspond to qualitative descriptions. **Table 5.8** explains these classifications.

TABLE 5.8: MISSISSIPPI DAM HAZARD CLASSIFICATIONS

Hazard Classification	Description
Low	Dam failure may cause damage to farm buildings (excluding residences), agricultural land, or county or minor roads.
Significate	Dam failure may cause significant damage to main roads, minor railroads, or cause interruption of use or service of relatively important public utilities.
High	Dam failure may cause loss of life, serious damage to homes, industrial or commercial buildings, important public utilities, main highways or railroads. Dams constructed in existing or proposed residential, commercial or industrial areas will be classified as high hazard dams, unless the applicant presents clear and convincing evidence to the contrary

Source: Mississippi Division of Environmental Quality

According to the Mississippi Division of Environmental Quality, there are eighteen high hazard dams in the *MEMA District 8 Region*. **Figure 5.5** shows the location of each of these high hazard dams and **Table 5.9** lists the number in each county. More detailed information can be found in each jurisdictional annex.

FIGURE 5.5: MEMA DISTRICT 8 REGION HIGH HAZARD DAM LOCATIONS

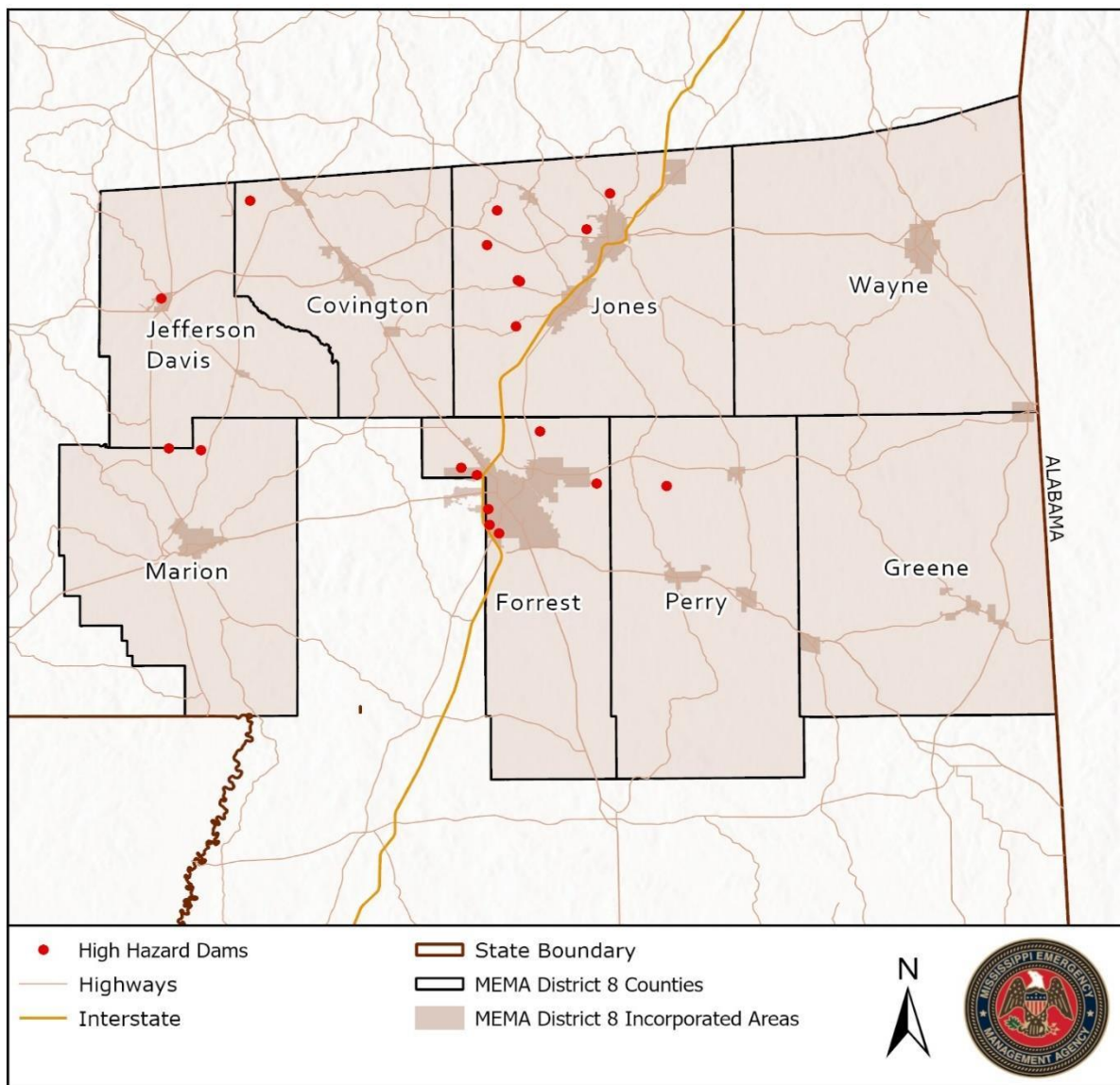


TABLE 5.9: MEMA DISTRICT 8 REGION HIGH HAZARD DAMS

Location	# of High Hazard Dams
Covington County	1
Forrest County	7
Greene County	0
Jefferson Davis County	2
Jones County	5
Marion County	2
Perry County	1
Wayne County	0
MEMA District 8 Total:	18

Source: Mississippi Division of Environmental Quality

5.4.3 Historical Occurrences

A total of two dams have been breached in the *MEMA District 8 Region*. Two dam breaches have occurred in Jones County one in 1993 (Indian Springs Lake) and one 2010 (Lake Getaway). There are no reports of death or injury, and damage caused was minimal. However, a third breach occurred in 2004 (Big Bay Dam) in Lamar County that resulted in damages in Marion County, including destruction of 1 mobile home; major damage to 14 homes, 2 mobile homes, Pine Burr Church, and Pine Burr Volunteer Fire Department; and minor damage to 10 homes, 3 mobile homes, and Hub Chapel Church.

5.4.4 Probability of Future Occurrence

Given the current dam inventory and historic data available at this time, a dam breach is not likely at this time (less than 1 percent annual probability). Dam breach evaluations have been completed for some, but not all High Hazard dams listed in *Section 5.5.2*. Evaluation studies and inundation maps completed are available from the Mississippi Department of Environmental Quality Dam Safety Division. As further analysis are completed for the remaining structures, those studies will be utilized to inform the decision-making process to reduce to risk to downstream lives and property.

5.4.5 FEMA HHPD Grant Program – Lynn Cartlage Lake Dam

The Lynn Cartlage lake Dam, locally referred to the Longleaf Acres Dam, is being rehabilitated through the FEMA High Hazard Potential Dam Program. The rehabilitation actions include adding soil to the backslope of the dam to increase the width and make the dam easier to operate and maintain, resize the spillways to increase the capacity to pass water during extreme weather events and add wave wash protection to the front face of the dam to fortify against erosion damage and reduce the risk of failure. All structures around the dam are constructed above the top of dam elevation, so there is no concern with upstream flooding potential. With the resized spillway capacity, risk from a cascading storm event will be substantially reduced since the structure is modified to meet Probable Maximum Precipitation requirements for a High hazard structure. Since this is a recreational lake and not used for mining or coal ash storage, there are no environmental impacts anticipated from a potential dam breach. There are residual risk concerns for downstream lives and property in the event the dam potentially fails and breaches in the future, but the rehabilitation activities are reducing the potential risk and Forrest County has maintained an Operation and Maintenance Plan for the dam to ensure appropriate monitoring and maintenance with be performed for the structure to minimize those risks to the maximum extent practicable.



The inundation map above represents a sunny day, top of dam failure analysis performed using HEC-RAS modeling software. There are 10 homes in the inundation footprint that are projected to receive flood waters above the finished floor elevation. At 2.5 persons per home, this represents a Population at Risk (PAR) of 25. The resulting release from a potential dam failure is projected to overtop the downstream the 4-lane State Highway 49, but the depth of flow would not be considered substantial enough to cause long term damage to the infrastructure.

5.5 EROSION

5.5.1 Background

Erosion is the gradual breakdown and movement of land due to both physical and chemical processes of water, wind, and general meteorological conditions. Natural, or geologic, erosion has occurred since the Earth's formation and continues at a very slow and uniform rate each year.

There are two types of soil erosion: *wind erosion* and *water erosion*. **Wind erosion** can cause significant soil loss. Winds blowing across sparsely vegetated or disturbed land can pick up soil particles and carry them through the air, thus displacing them. **Water erosion**, the hazard of topic here, can occur over land or in streams and channels. *Water erosion* that takes place over land may result from raindrops, shallow sheets of water flowing off the land, or shallow surface flow, which becomes concentrated in low spots. **Stream channel erosion** may occur as the volume and velocity of water flow increases enough to cause movement of the streambed and bank soils. Major storms, such hurricanes in coastal areas, may cause significant erosion by combining high winds with heavy surf and storm surge to significantly impact the shoreline.

An area's potential for erosion is determined by four factors: *soil characteristics*, *vegetative cover*, *topography* *climate or rainfall*, and *topography*. **Soils** composed of a large percentage of silt and fine sand are most susceptible to erosion. As the clay and organic content of these soils increases, the potential for erosion decreases. Well-drained and well-graded gravels and gravel-sand mixtures are the least likely to erode. Coarse gravel soils are highly permeable and have a good capacity for absorption, which can prevent or delay the amount of surface runoff. **Vegetative cover** can be very helpful in controlling erosion by shielding the soil surface from falling rain, absorbing water from the soil, and slowing the velocity of runoff. Runoff is also affected by the topography of the area including size, shape, and slope. The greater the slope length and gradient, the more potential an area has for erosion. **Climate** can affect the amount of runoff, especially the frequency, intensity, and duration of rainfall and storms. When rainstorms are frequent, intense, or of long duration, erosion risks are high. **Seasonal changes** in temperature and rainfall amounts define the period of highest erosion risk of the year.

During the past 20 years, the importance of erosion control has gained the increased attention of the public. Implementation of erosion control measures consistent with sound agricultural and construction operations is needed to minimize the adverse effects associated with harmful chemicals run-off due to wind or water events. The increase in government regulatory programs and public concern has resulted in a wide range of erosion control products, techniques, and analytical methodologies in the United States. The preferred method of erosion control in recent years has been the restoration of vegetation.

5.5.2 Location and Spatial Extent

Erosion in the *MEMA District 8 Region* is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in the *MEMA District 8 Region* are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

5.5.3 Historical Occurrences

Several sources were vetted to identify areas of erosion in the *MEMA District 8 Region*. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

Covington County, Jefferson Davis County, and Marion County have flood damage prevention ordinances that include measures to limit erosion. Such actions will continue to be implemented as necessary throughout the region.

5.5.4 Probability of Future Occurrences

Erosion remains a natural, dynamic, and continuous process for the *MEMA District 8 Region*, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually). However, given the lack of historical events, location, and threat to life or property, no further analysis will be done in *Section 6: Vulnerability Assessment*.

5.6 WILDFIRE

5.6.1 Background

A **wildfire** is any outdoor fire (i.e. grassland, forest, brush land) that is not under control, supervised, or prescribed. **Wildfires** are part of the natural management of forest ecosystems but may also be caused by human factors.

Nationally, over 80 percent of forest fires are started by negligent human behavior such as smoking in wooded areas or improperly extinguishing campfires. The second most common cause for wildfire is lightning. In Mississippi, a majority of fires are caused by debris burning.

There are *three classes of wildland fires: surface fire, ground fire, and crown fire*. A **surface fire** is the most common of these three classes and burns along the floor of a forest, moving slowly and killing or damaging trees. A **ground fire** (muck fire) is usually started by lightning or human carelessness and burns on or below the forest floor. **Crown fires** spread rapidly by wind and move quickly by jumping along the tops of trees. Wildfires are usually signaled by dense smoke that fills the area for miles around.

Wildfire probability depends on local weather conditions, outdoor activities such as camping, debris burning, and construction, and the degree of public cooperation with fire prevention measures. Drought conditions and other natural hazards (such as tornadoes, hurricanes, etc.) increase the probability of wildfires by producing fuel in both urban and rural settings.

Many individual homes and cabins, subdivisions, resorts, recreational areas, organizational camps, businesses, and industries are located within high wildfire hazard areas. Furthermore, the increasing demand for outdoor recreation places more people in wildlands during holidays, weekends, and vacation periods. Unfortunately, wildland residents and visitors are rarely educated or prepared for wildfire events that can sweep through the brush and timber and destroy property within minutes.

Wildfires can result in severe economic losses as well. Businesses that depend on timber, such as paper mills and lumber companies, experience losses that are often passed along to consumers through higher prices and sometimes jobs are lost. The high cost of responding to and recovering from wildfires can deplete state resources and increase insurance rates. The economic impact of wildfires can also be felt in the tourism industry if roads and tourist attractions are closed due to health and safety concerns.

State and local governments can impose fire safety regulations on home sites and developments to help curb wildfire. Land treatment measures such as fire access roads, water storage, helipads, safety zones, buffers, firebreaks, fuel breaks, and fuel management can be designed as part of an overall fire defense system to aid in fire control. Fuel management, prescribed burning, and cooperative land management planning can also be encouraged to reduce fire hazards.

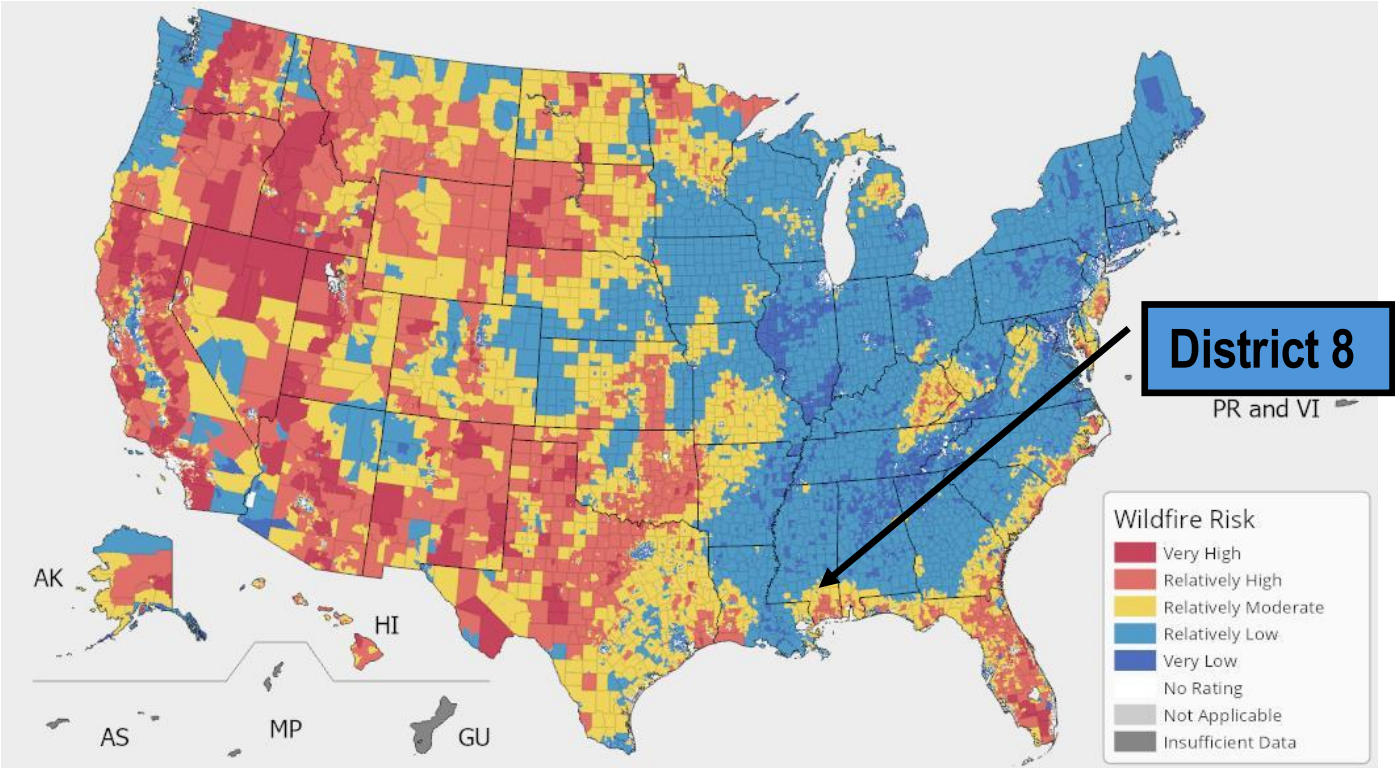
5.6.2 Location and Spatial Extent

The entire region is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

5.6.3 Historical Occurrences

Figure 5.6 shows the Fire Occurrence Areas (FOA) in the *MEMA District 8 Region* based on data from the Southern Wildfire Risk Assessment. This data is based on historical fire ignitions and is reported as the number of fires that occur per 1,000 acres each year.

FIGURE 5.6: HISTORIC WILDFIRE EVENTS IN THE MEMA DISTRICT 8 REGION



Source: FEMA

Based on data from the Mississippi Forestry Commission from 2019 to 2023, the *MEMA District 8 Region* experienced an average of 32 wildfires annually which burned a combined 234 acres, on average. **Table 5.10** provides a summary table for wildfire occurrences in the *MEMA District 8 Region*. The number of reported wildfire occurrences in the participating counties between the years 2010 and 2023 is listed in the jurisdiction-specific annexes. (Decimals were rounded to the nearest whole number.)

TABLE 5.10: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2010 -2023)*

Location	Average Number of Fires per Year	Average Number of Acres Burned per Year	Average Number of Acres Burned per Fire
Covington County	25	124	5
Forrest County	20	198	10
Greene County	34	446	13
Jefferson Davis County	58	573	10
Jones County	22	180	8
Marion County	48	592	12
Perry County	19	287	15
Wayne County	27	193	7
Total MEMA District 8:	32	324	10

Source: MS Forestry Commission

5.6.4 Possible Effects of Climate Change

Climate change has been a key factor in increasing the risk and extent of wildfires in the Western United States. Wildfire risk depends on a number of factors, including temperature, soil moisture, and the presence of trees, shrubs, and other potential fuel. All these factors have strong direct or indirect ties to climate variability and climate change. **Climate change** enhances the drying of organic matter in forests (the material that burns and spreads wildfire) and has doubled the number of large fires in the United States.

Research shows that changes in climate create warmer, drier conditions. Increased drought, and a longer fire season are boosting these increases in wildfire risk. For much of the U.S. West, projections show that an average annual 1 degree C temperature increase would increase the median burned area per year as much as 600 percent in some types of forests. In the Southeastern United States modeling suggests increased fire risk and a longer fire season, with at least a 30 percent increase from 2011 in the area burned by lightning-ignited wildfire by 2060.

More than 80 percent of U.S. wildfires are caused by people—warmer temperatures and drier conditions can help fires spread and make them harder to put out. Warmer, drier conditions also contribute to the spread of the mountain pine beetle and other insects that can weaken or kill trees, building up the fuels in a forest.

Land use and forest management also affect wildfire risk. **Changes in climate** add to these factors and are expected to continue to increase the area affected by wildfires in the United States. According to the National Oceanic and Atmospheric Administration, “Climate change, including increased heat, extended drought, and a thirsty atmosphere, has been a key driver in increasing the risk and extent of wildfires in the western United States during the last two decades. Wildfires require the alignment of a number of factors, including temperature, humidity, and the lack of moisture in fuels, such as trees, shrubs, grasses, and forest debris. All these factors have strong direct or indirect ties to climate variability and climate change.”

Wildfires threaten human health and safety. Direct human fatalities are the result of entrapment when people or firefighters are unable to escape a fire. Additionally, smoke exposure may impact communities far beyond a wildfire burn area, causing or exacerbating health problems. Water supplies can be adversely affected during a wildfire and for years afterward due, in part, to contaminants associated with ash settling on streams, lakes, and water reservoirs. Wildfires can also impact the short- and long-term migration of displaced residents, including short-term emergency evacuations and long-term displacements when homes are destroyed. Wildfires are increasingly destructive and costly. Between 1980 and 2021, the United States experienced 20 wildfire events that caused more than \$1 billion in damage; 16 of those 20 wildfires occurred since 2000. Source FEMA

Fire weather primes the landscape for wildfires to start and spread. **Fire weather** refers to meteorological conditions that promote the spread of wildfires. According to Climate Central, their analysis focuses on three conditions fundamental to fire weather: relative humidity, temperature, and wind.

When relative humidity levels are very low, the air pulls moisture from the land, leaving vegetation dry and prone to burning. This analysis shows decreasing relative humidity has been a major factor in boosting annual fire weather days for many locations across the U.S.

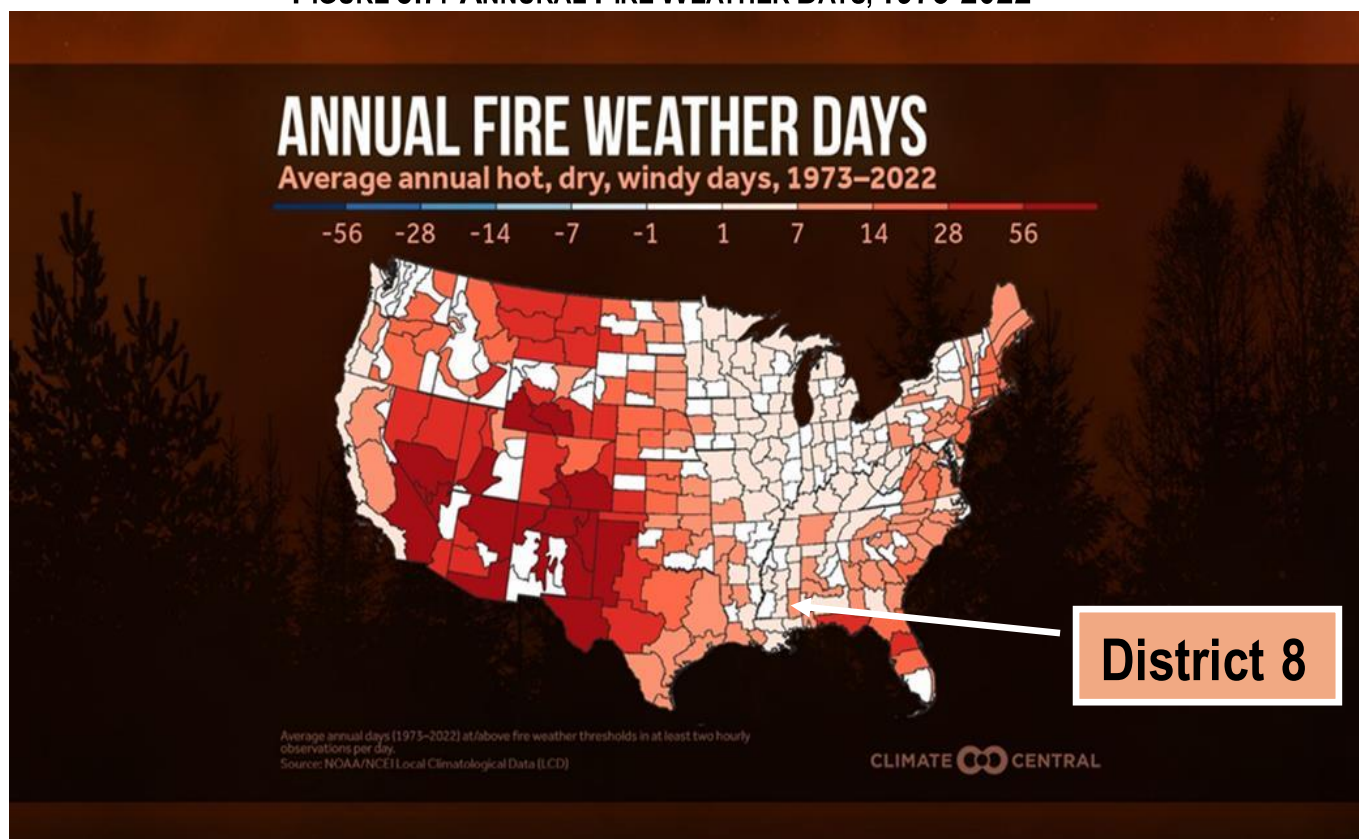
Hotter temperatures have a direct influence on fire behavior, heating the fuels and making them more likely to ignite. Fire weather conditions also restrict firefighters' ability to put out wildfires. Climate change is causing warmer nighttime temperatures, which decreases the overnight relative humidity that once helped firefighters gain control over wildfires.

Wind supplies oxygen to a fire, causing it to burn more rapidly. Wind increases evaporation, drying out the land. Wind also carries embers, which helps fires spread. See **Figure 5: 7**. For annual fire weather days. (Source: *Climate Central*)

5.6.5 Probability of Future Occurrences

Wildfire events will be an ongoing occurrence in the *MEMA District 8 Region*. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due to local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to the *MEMA District 8 Region* for future wildfire events is likely (a 10 and 100 percent annual probability).

FIGURE 5.7: ANNURAL FIRE WEATHER DAYS, 1973-2022



5.7 DROUGHT/ HEAT WAVE

5.7.1 Background

DROUGHT

Drought is the absence of precipitation, rather than the presence of an event such as a hurricane, tornado, or fire. It's often described as a "creeping phenomenon" because it slowly impacts many sectors of the economy and operates on many different timescales. Just as drought is difficult to define, it's also difficult to predict and monitor—particularly when marking the beginning and end of a period of drought.

Drought's effects also vary from region to region. Due to climatic differences, what might be considered a drought in one part of the country may not be a drought somewhere else. Drought is a normal part of virtually all climatic regions, including areas with high and low average rainfall. Drought is the consequence of a natural reduction in the amount of precipitation expected over an extended period of time, usually a season or more in length. High temperatures, high winds, and low humidity can exacerbate drought conditions. In addition, human actions and demands for water resources can hasten drought-related impacts. Droughts may also lead to more severe wildfires.

Droughts are typically classified into one of four types: 1) meteorological, 2) hydrologic, 3) agricultural, 4) socioeconomic, or 5) ecological. **Table 5.11** presents definitions for these types of drought.

TABLE 5.11 DROUGHT CLASSIFICATION DEFINITIONS

Meteorological Drought	The degree of dryness or departure of actual precipitation from an expected average or normal amount based on monthly, seasonal, or annual time scales. (When dry weather patterns dominate an area).
Hydrologic Drought	The effects of precipitation shortfalls on stream flows and reservoir, lake, and groundwater levels. (When low water supply becomes evident in a water system).
Agriculture Drought	Soil moisture deficiencies relative to water demands of plant life, usually crops. (When crops become affected by drought).
Socioeconomic Drought	The effect of demands for water exceeding the supply as a result of a weather-related supply shortfall. (When the supply and demand of various commodities is affected by drought).
Ecological Drought	When natural ecosystems are affected by drought

Source: Drought.gov



Meteorological Drought



Hydrological Drought



Agricultural Drought



Socioeconomic Drought



Ecological Drought

EXAMPLES OF DROUGHT IMPACTS

Drought can lead to a wide range of environmental, social, and economic impacts. Below are just a few examples of the far-reaching consequences of drought.

Agriculture—Drought can reduce the water availability and quality necessary for productive farms, ranches, and grazing lands. It can also contribute to insect outbreaks, increases in wildfire, and altered rates of carbon, nutrient, and water cycling—impacting agricultural production and critical ecosystem services.

Transportation—Drought impacts port and waterway transportation and supply chains, resulting in increased transportation costs. Higher temperatures that coexist with drought can impact roads, airport runways, and rail lines.

Wildfire—Drought can be a contributing factor to wildfire. Dry, hot, and windy weather combined with dried out (and more flammable) vegetation can increase the probability of large-scale wildfires.

Public Health—Drought can cause significant human health outcomes, including decreased water quantity and quality, increased incidence of illness and disease (e.g., Valley Fever), adverse mental health outcomes as livelihoods are challenged, and overall, increased mortality rates.

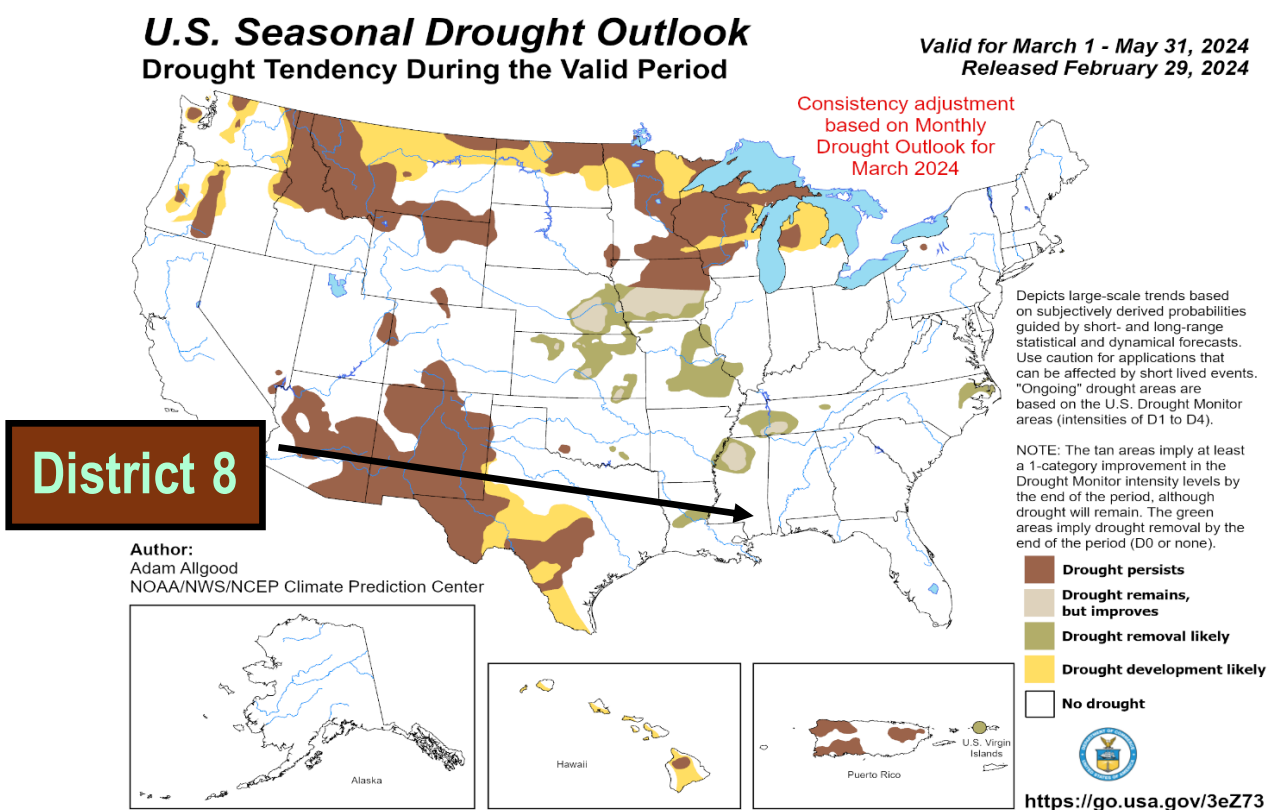
Ecosystems—Drought can alter or degrade critical functions of healthy ecosystems, including reduced plant growth, reduction or extinction of local species, and landscape-level transitions (e.g., a forest being replaced by a grassland).

Water Quality—During drought, decreased water levels, warmer temperatures, and soil runoff can lead to algal growth, lower dissolved oxygen levels, and increased turbidity, posing health risks for human and aquatic life.

Droughts are slow-onset hazards, but, over time, can have very damaging affects to crops, municipal water supplies, recreational uses, and wildlife. If drought conditions extend over a number of years, the direct and indirect economic impact can be significant.

The **Palmer Drought Severity Index (PDSI)** is based on observed drought conditions and range from -0.5 (incipient dry spell) to -4.0 (extreme drought). Evident in **Figure 5.8**, the **Palmer Drought Severity Index Summary Map** for the United States, drought affects most areas of the United States but is less severe in the Eastern and Southeastern United States.

FIGURE 5.8: PALMER DROUGHT SEVERITY INDEX SUMMARY MAP FOR THE UNITED STATES



Source: US Drought Monitor

The U.S. Drought Monitor also records information on historical drought occurrence. The U.S. Drought Monitor categorizes drought on a D0-D4 scale as Table 5.11 presents definitions for these classifications.

TABLE 5.11 U.S. DROUGHT MONITOR

D0	Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered
D1	Moderate Drought	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested
D2	Severe Drought	Crop or pasture losses likely; water shortages common; water restrictions imposed
D3	Extreme Drought	Major crop/pasture losses; widespread water shortages or restrictions
D4	Exceptional Drought	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies

Source: Climate Central

HEAT WAVE

Extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and that last for an extended period of time of days or several weeks. In most of the United States, extreme heat conditions can also be defined as two days of temperatures over 90 degrees Fahrenheit (F). Humid conditions may also add to the discomfort of high temperatures. While extreme heat does not typically affect buildings, the impact to the population can have grave effects. Health risks from extreme heat include heat cramps, heat fainting, heat exhaustion and heat stroke. According to the National Weather Service (which compiles data from the National Center for Environmental Information), heat is the leading weather-related killer in the United States. From 2000 through 2009, extreme heat exposure caused more than 7,800 deaths in the United States. In addition to deaths, extreme heat events cause a wide range of other health problems such as rashes, cramps, heat exhaustion, and heat stroke. Extreme heat can also make existing medical conditions worse. A 2017 National Resources Defense Council (NRDC) study looked at how an increase in the number of “dangerous summer days” will increase the number of heat-related deaths in 45 U.S. cities. An estimated 150 Americans will die every summer day due to extreme heat by 2040, with almost 30,000 heat-related deaths annually. That’s twice the number of people who are killed by gun violence annually in the U.S. today.

The National Weather Service devised the Heat Index as a mechanism to better inform the public of heat dangers. The Heat Index Chart, shown in **Figure 5.9**, uses air temperature and humidity to determine the heat index or apparent temperature. **Table 5.12** shows the dangers associated with different heat index temperatures. Some populations, such as the elderly and young, are more susceptible to heat danger than other segments of the population.

FIGURE 5.9: HEAT INDEX CHART

		Relative Humidity (in percent)																
		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
Air Temp (in F)	140	125																
	135	120	128															
	130	117	122	131														
	125	111	116	123	131	141												
	120	107	111	116	123	130	139	148										
	115	103	107	111	115	120	127	135	143	151								
	110	99	102	105	108	112	117	123	130	137	143	150						
	105	95	97	100	102	105	109	113	118	123	129	135	142	149				
	100	91	93	95	97	99	101	104	107	110	115	120	126	132	138	144		
	95	87	88	90	91	93	94	96	98	101	104	107	110	114	119	124	130	136
	90	83	84	85	86	87	88	90	91	93	95	96	98	100	102	106	109	113

Source: NOAA

TABLE 5.12: HEAT DISORDERS ASSOCIATED WITH HEAT INDEX TEMPERATURE

Heat Index Temperature (Fahrenheit)	Description of Risks
80 – 90	Fatigue possible with prolonged exposure and/or physical activity
90 – 105	Sunstroke, heat cramps, and heat exhaustion possible with prolonged exposure and/or physical activity
105 – 130	Sunstroke, heat cramps, and heat exhaustion likely, and heatstroke possible with prolonged exposure and/or physical activity
130 or higher	Heatstroke or sunstroke is highly likely with continued exposure

Source: NOAA

5.7.2 Location and Spatial Extent

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that the MEMA District 8 Region would be uniformly exposed to drought, making the spatial extent potentially widespread. It is also notable that drought conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

5.7.3 Historical Occurrences

DROUGHT

Data from the U.S. Drought Monitor and National Centers for Environmental Information (NCEI) were used to ascertain historical drought events in the MEMA District 8 Region. The U.S. Drought Monitor reports data at the county level on a weekly basis throughout the county. It classifies drought conditions on a scale of D0 to D4, as described in Table 5.11 above.

According to the U.S. Drought Monitor, all of the counties in the MEMA District 8 Region had drought levels (including abnormally dry) in all of the last twenty-four years (2000-2024) (Table 5.13). The most severe drought classification reported for each year, according to U.S. Drought Monitor classifications, is listed in the jurisdiction-specific annexes. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE 5.13: SUMMARY OF DROUGHT OCCURRENCES IN THE MEMA DISTRICT 8 REGION

Abnormally DryModerate DroughtSevere DroughtExtreme DroughtExceptional Drought		
Location	Number of Occurrences	Damage/Crop Loss
Covington County	11	\$4,221,000
Forrest County	10	\$2,618,000
Greene County	2	\$0
Jefferson Davis County	10	\$2,729,000
Jones County	13	\$3,361,000
Marion County	10	\$1,366,000
Perry County	3	\$0
Wayne County	3	\$0
MEMA District 8 Total:	62	\$14,295,000

Source: National Centers for Environmental Information (NCEI)/NOAA

Figure 5. 10 shows a particularly large drought that effected most of the State in 2016. Figure 5.11 shows the drought in 2023. On both occasions the entire state was experiencing a large drought and most of the state was under a burn ban.

FIGURE 5.10: PALMER DROUGHT INDEX FOR NOVEMBER 2016

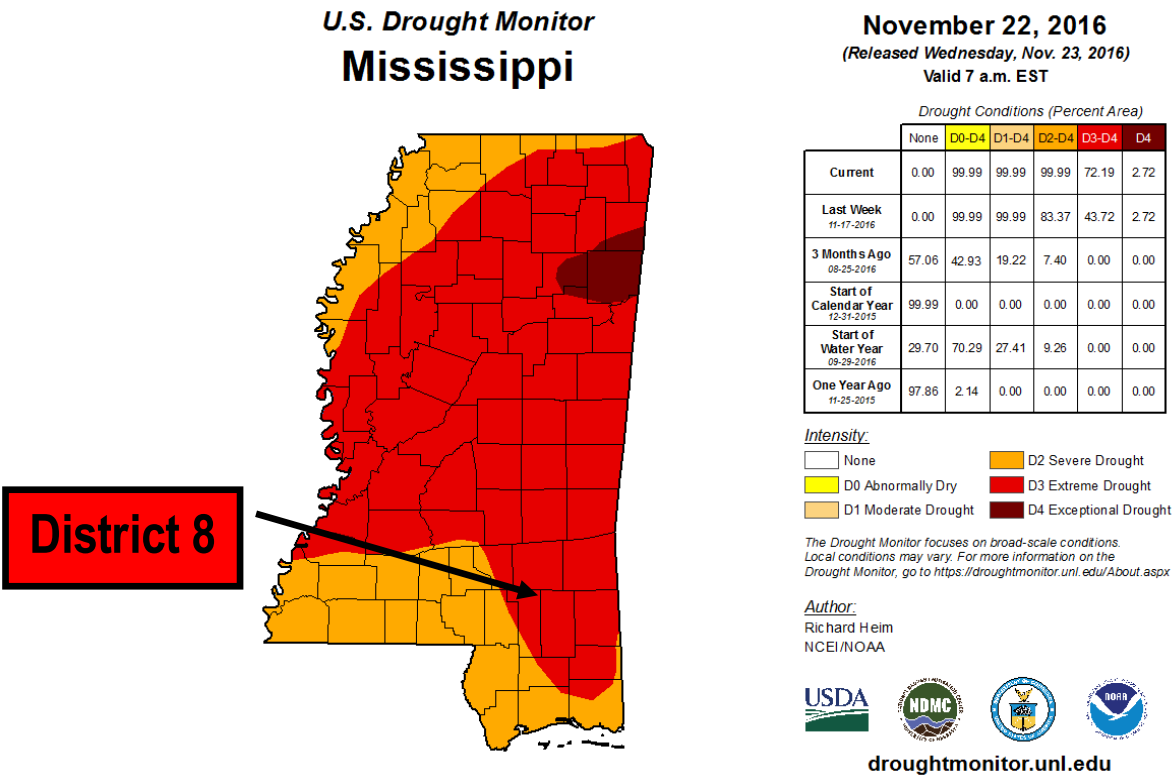
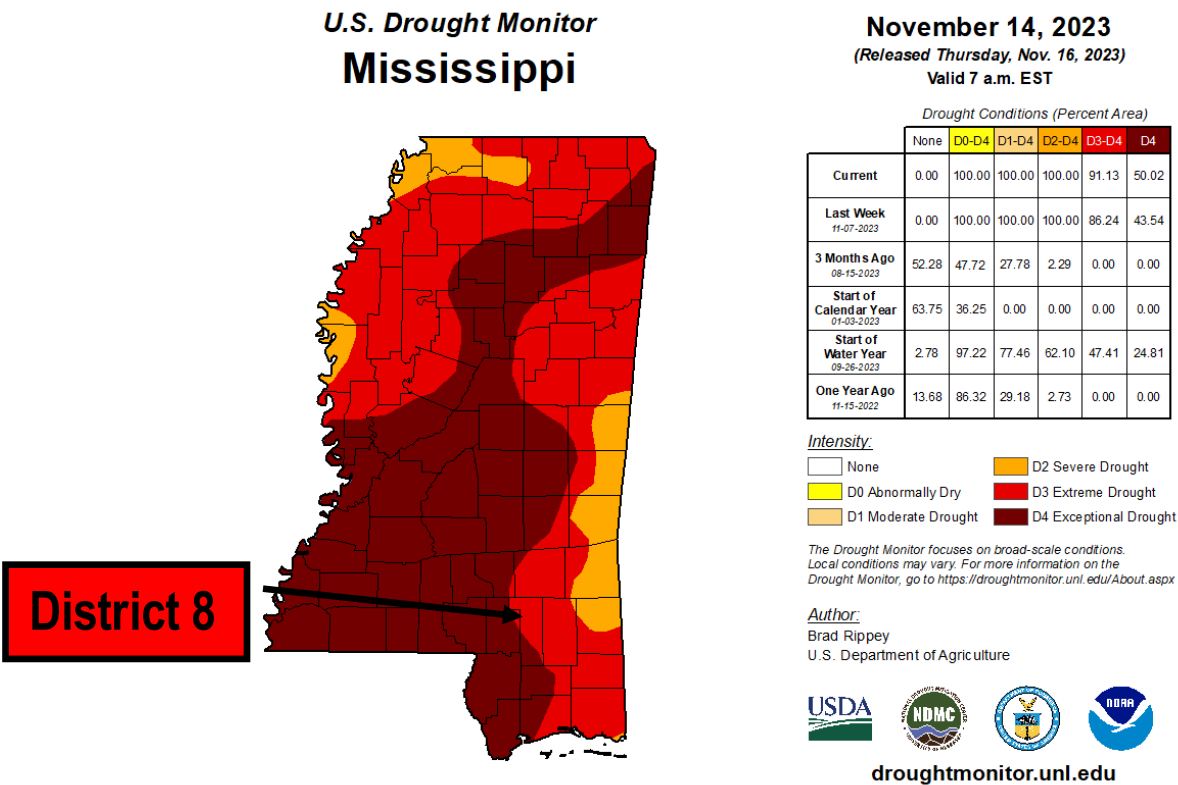


FIGURE 5.11: PALMER DROUGHT INDEX FOR 2023



HEAT WAVE

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the region. **Table 5.14** shows the number of heat wave days in each county of District 8 from 2000 to 2024.

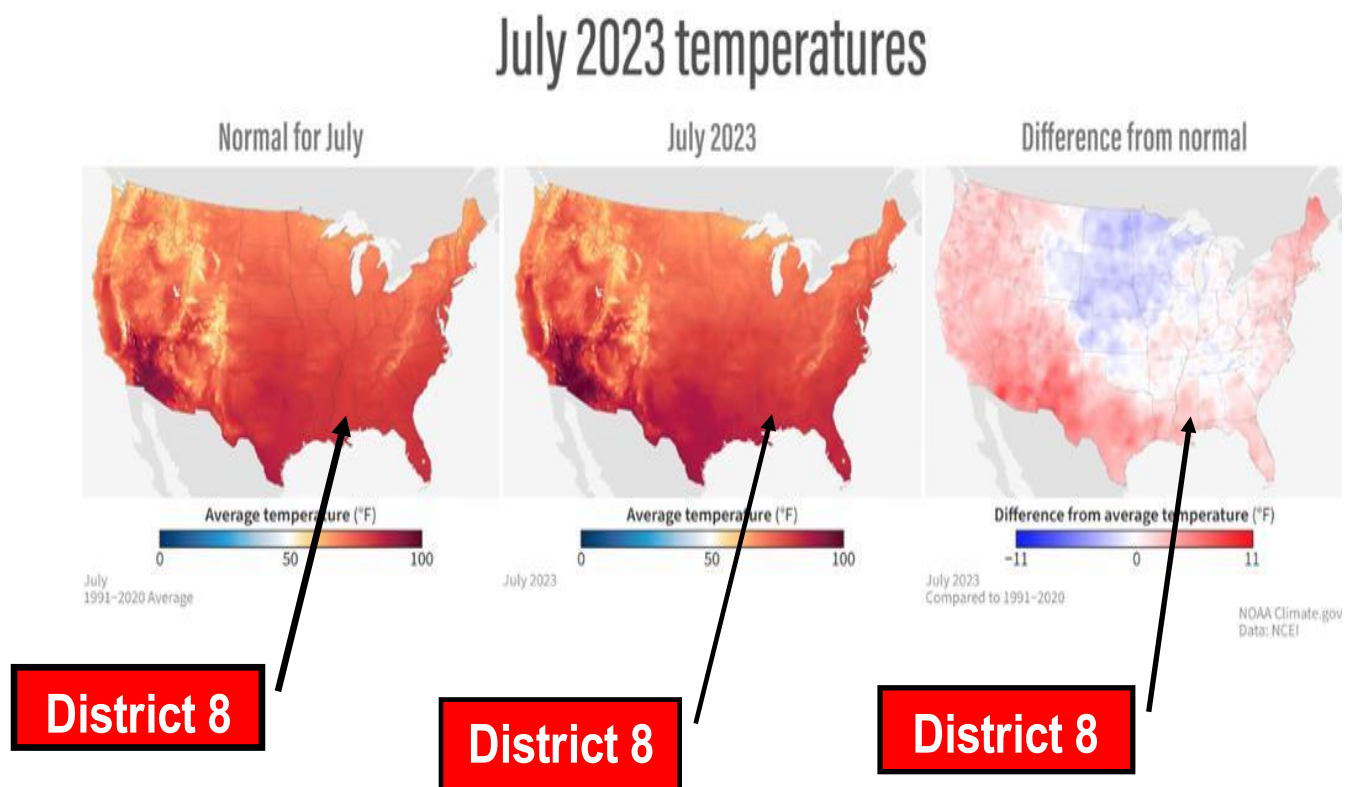
TABLE 5.14: HEAT WAVES

Location	Number of Heat Waves	Location	Number of Heat Waves
Covington County	5	Jones County	6
Forrest County	5	Marion County	5
Greene County	2	Perry County	2
Jefferson Davis County	5	Wayne County	2
MEMA District 8 Total:			32

Source: National Centers for Environmental Information (NCEI)/NOAA

Summer of 2023 was Earth's hottest summer on record, 0.41 degrees Fahrenheit (F) (0.23 degrees Celsius (C)) warmer than any other summer in NASA's record and 2.1 degrees F (1.2 C) warmer than the average summer between 1951 and 1980. This new record comes as exceptional heat swept across much of the world, exacerbating deadly wildfires. Overall, extreme heat in the summer can put tens of millions of people under heat warnings and was linked to hundreds of heat-related illnesses and deaths. All seasons are projected to continue to get hotter (See **Figures 5.12**, Source: NOAA/National Climate Report (NCEI))

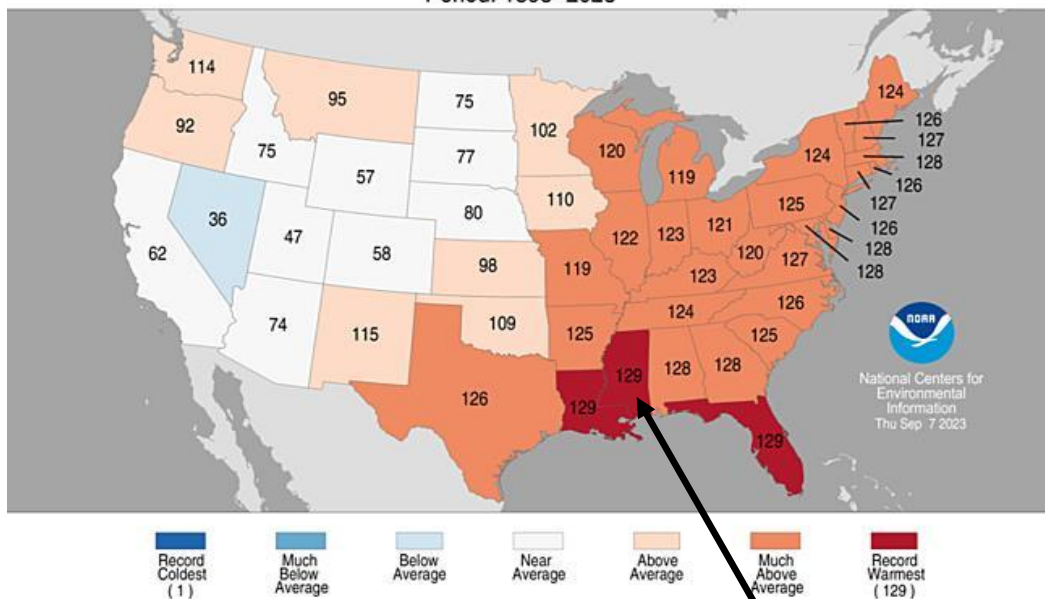
FIGURES 5.12a: HIGH TEMPERATURES OF 2023



FIGURES 5.12b: HIGH TEMPERATURES OF 2023**Statewide Average Temperature Ranks**

January – August 2023

Period: 1895–2023

**5.7.4 Probability of Future Occurrences****District 8****DROUGHT**

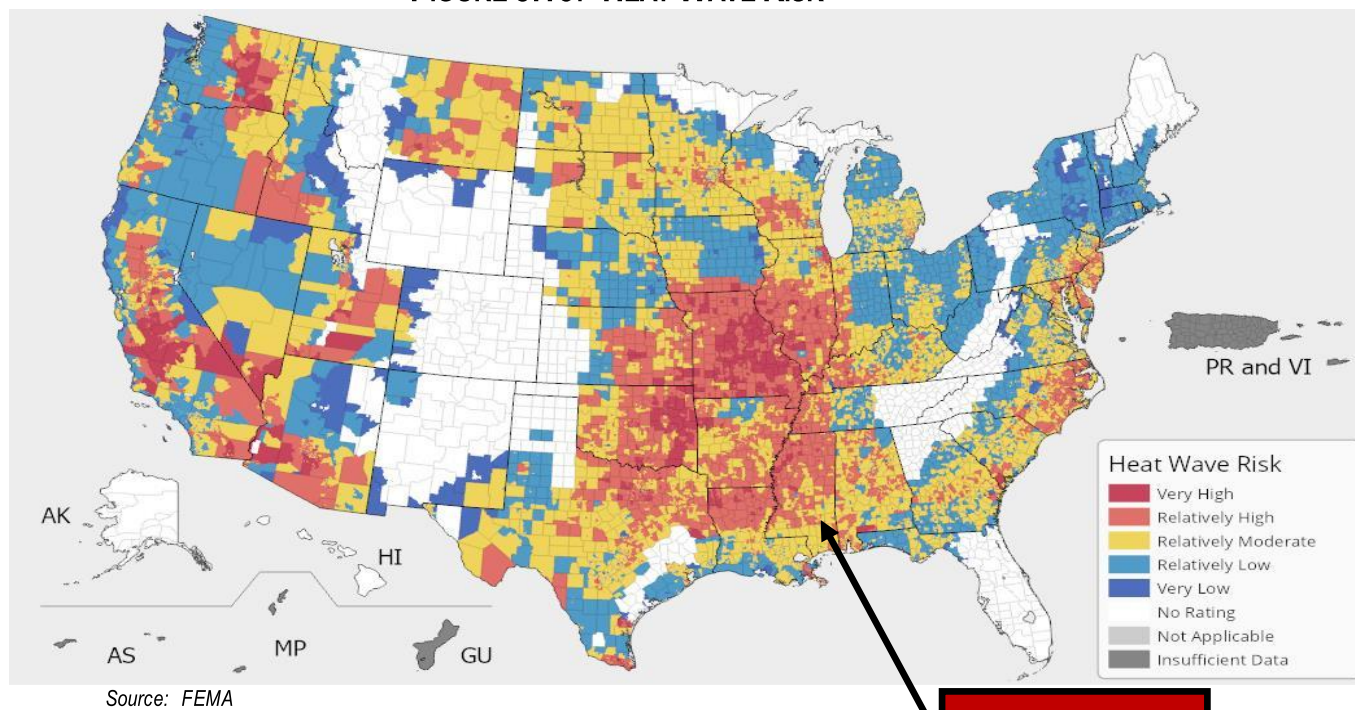
According to the Palmer Drought Severity Index (**Table 5.11**), *MEMA District 8* has a relatively low risk for drought hazard at this time, but with the climate changing, the risk of drought increases. Local areas may also experience much more severe and/or frequent drought events than what is represented on the Palmer Drought Severity Index map.

Based on historical occurrence information, it is assumed that all of the *MEMA District 8 Region* has a probability level of likely (10-100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions.

HEAT WAVE

Based on historical occurrence information, it is assumed that all of the *MEMA District 8 Region* has a probability level of likely (10-100 percent annual probability) for future heat wave events. In the National Risk Index from FEMA, a Heat Wave Risk Index score and rating represent a community's relative risk for Heat Waves when compared to the rest of the United States. The Risk Index shows Mississippi has a high probability of Heat Wave Risk. With the rise of temperatures globally there is the potential for more high heat days. See **Figure 5.13**.

FIGURE 5.13: HEAT WAVE RISK



5.7.5 Drought/ Heat Wave and Climate Change

District 8

DROUGHT

According to FEMA, Climate change is expected to change the frequency and intensity of drought patterns. As Earth's average temperature rises, evaporation rates will increase, leading to more precipitation in some areas and less precipitation in others. All vital infrastructure systems, both human-made and natural, face drought-related risks. Drought can affect agriculture, critical infrastructure, and various public services and create competition for water resources between urban, rural, and industrial needs, impacting all facets of society. The consequences of drought include the disruption of economic, health, and critical infrastructure systems through both direct and secondary hazards. Direct hazards include lack of raw water availability and water degradation. Secondary hazards include exacerbation of land subsidence and increases in wildfires, flooding, and dust storms. Agricultural production, critical ecosystem functions, and soil nutrient uptake rates are dependent upon water availability. Drought can alter the balance of ecosystems, affecting fish, game, wildlife, and plant species.

Ecosystems, which are vital to human communities, are interdependent and the vulnerability of one can lead to cascading impacts on another. (Source FEMA: Response and Recovery to Climate Change Planning).

HEAT WAVE

Extreme heat is defined as temperatures that hover 10 degrees or more above the average high temperature for the region and that last for an extended period of time of days or several weeks. In most of the United States, extreme heat conditions can also be defined as two days of temperatures over 90 degrees Fahrenheit (F). Humid conditions may also add to the discomfort of high temperatures. While extreme heat does not typically affect buildings, the impact to the population can have grave effects. Health risks from extreme heat include heat cramps, heat fainting, heat exhaustion and heat stroke. According to the National Weather Service (which compiles data from the National Center for Environmental Information), heat is the leading weather-related killer in the United States. From 2000 through 2009, extreme heat exposure caused more than 7,800 deaths in the United States. In addition to deaths, extreme heat events cause a wide range of other health problems such as rashes, cramps, heat exhaustion, and heat stroke. Extreme heat can also make existing medical conditions worse. A 2017 National Resources Defense Council (NRDC) study looked at how an increase in the number of "dangerous summer days" will increase the number of heat-related deaths in 45 U.S. cities. An estimated 150 Americans will die every summer day due to extreme heat by 2040, with almost 30,000 heat-related deaths annually. That's twice the number of people who are killed by gun violence annually in the U.S. today.

5.8 EARTHQUAKE

5.8.1 Background

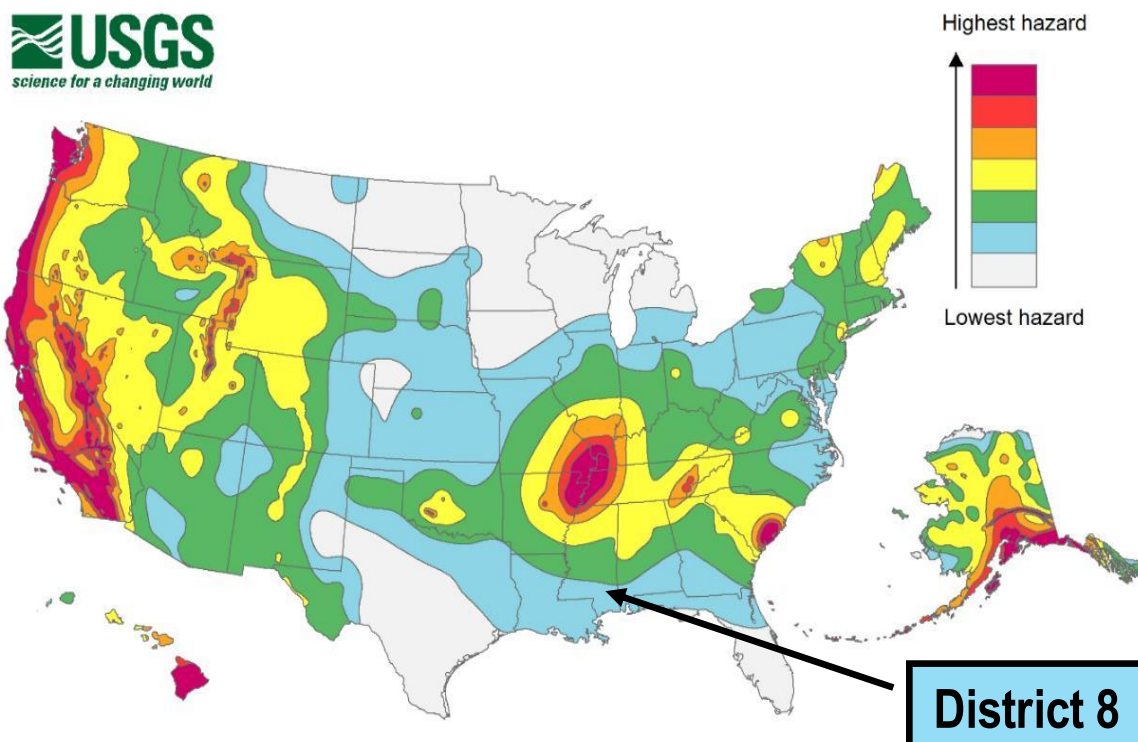
An **earthquake** is movement or trembling of the ground produced by sudden displacement of rock in the Earth's crust. **Earthquakes** result from crustal strain, volcanism, landslides, or the collapse of caverns. **Earthquakes** can affect hundreds of thousands of square miles, cause damage to property measured in the tens of billions of dollars, result in loss of life and injury to hundreds of thousands of persons and disrupt the social and economic functioning of the affected area.

Most property damage and earthquake-related deaths are caused by the failure and collapse of structures due to ground shaking. The level of damage depends upon the amplitude and duration of the shaking, which are directly related to the earthquake size, distance from the fault, site, and regional geology. Other damaging earthquake effects include landslides, the down-slope movement of soil and rock (mountain regions and along hillsides), and liquefaction, in which ground soil loses the ability to resist shear and flows much like quicksand. In the case of liquefaction, anything relying on the substrata for support can shift, tilt, rupture, or collapse.

Most **earthquakes** are caused by the release of stresses accumulated as a result of the rupture of rocks along opposing fault planes in the Earth's outer crust. These fault planes are typically found along borders of the Earth's 10 tectonic plates. The areas of greatest tectonic instability occur at the perimeters of the slowly moving plates, as these locations are subjected to the greatest strains from plates traveling in opposite directions and at different speeds. Deformation along plate boundaries causes strain in the rock and the consequent buildup of stored energy. When the built-up stress exceeds the rocks' strength a rupture occurs. The rock on both sides of the fracture is snapped, releasing the stored energy and producing seismic waves, generating an earthquake.

The greatest earthquake threat in the United States is along tectonic plate boundaries and seismic fault lines located in the central and western states; however, the Eastern United State does face moderate risk to less frequent, less intense earthquake events. **Figure 5.14** shows relative seismic risk for the United States.

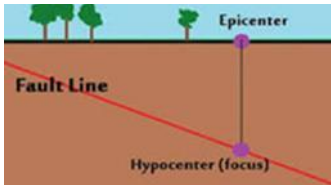
FIGURE 5.14: UNITED STATES EARTHQUAKE HAZARD MAP



Source: United States Geological Survey Visual 8.9: Generalized USGS seismic hazard map for the United States (2021). Map shows peak ground accelerations (in % gravity) with a 10% probability of being exceeded in 50 years ("500-year earthquake").

5.8.2 Hazard Description and Definitions

The United States Geographic Survey (USGS) defines an earthquake as a sudden motion or trembling of the earth caused by an abrupt release of stored energy beneath the earth’s surface. A description of technical terms associated with earthquakes is provided below:



Epicenter—the epicenter is the geographic location directly above the hypocenter on the earth’s surface. Ideally, the epicenter and the highest Modified Mercalli Intensity Scale (MMI) values on the isoseismic map coincide; however, his relationship is not always consistent.

Fault—faults can be defined as a rupture in subsurface geological materials where there is relative movement on the opposing sides of the rupture. The origin of this movement is stress built up in the earth’s crust from plate movement or other geological forces.

Hypocenter (focus)—the hypocenter is the location in the subsurface where the rupture took place.

Richter Scale—the Richter Scale is a numerical scale for expressing the magnitude of an earthquake on the basis of seismograph oscillations. The more destructive earthquakes typically have magnitudes between about 5.5 and 8.9; the scale is logarithmic and a difference of one represents an approximate thirtyfold difference in magnitude.

Modified Mercalli Intensity Scale—the size of an earthquake can be expressed in several ways, the most commonly used are the various magnitude scales and the Modified Mercalli Intensity Scale (MMI). There are several intensity scales, but MMI is most commonly used in this country.

Earthquakes are measured in terms of their magnitude and intensity. Magnitude is measured using the Richter Scale, an open-ended logarithmic scale that describes the energy release of an earthquake through a measure of shock wave amplitude (**Table 5.15**). Each unit increase in magnitude on the Richter Scale corresponds to a 10-fold increase in wave amplitude, or a 32-fold increase in energy. Intensity is most commonly measured using the Modified Mercalli Intensity (MMI) Scale based on direct and indirect measurements of seismic effects. The scale levels are typically described using roman numerals, ranging from “I” corresponding to imperceptible (instrumental) events to “XII” for catastrophic (total destruction). A detailed description of the Modified Mercalli Intensity Scale of earthquake intensity and its correspondence to the Richter Scale is given in **Table 5.16**. **Figure 5.17** shows, Types of Faults

TABLE 5.16: RICHTER SCALE

RICHTER MAGNITUDES	EARTHQUAKE EFFECTS
< 3.5	Generally, not felt but recorded.
3.5 – 5.4	Often felt, but rarely causes damage.
5.4 – 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1 – 6.9	Can be destructive in areas up to about 100 kilometers across where people live.
7.0 – 7.9	Major earthquake. Can cause serious damage over larger areas.
8 OR >	Great earthquake. Can cause serious damage in areas several hundred kilometers across.

Source: FEMA

TABLE 5.17: MODIFIED MERCALLI INTENSITY SCALE FOR EARTHQUAKES

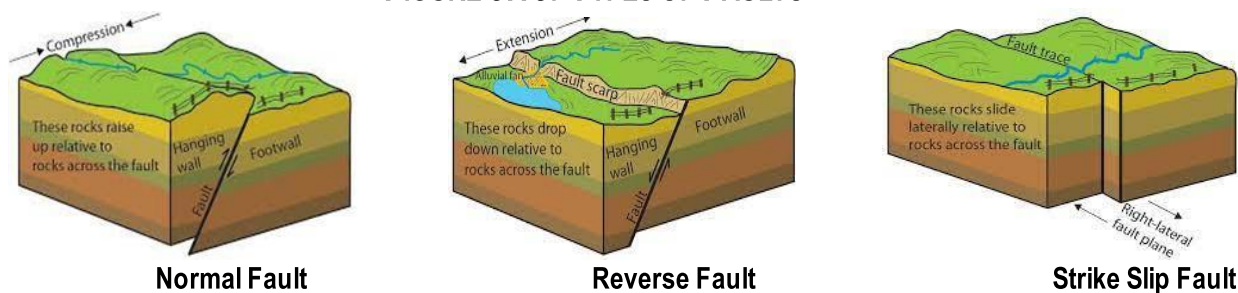
SCALE	INTENSITY	DESCRIPTION OF EFFECTS	CORRESPONDING Richter Scale Magnitude
I	INSTRUMENTAL	Detected only on seismographs. Usually not felt.	1-2
II	FEEBLE	Felt by people resting.	2-3
III	SLIGHT	Felt by people inside like a truck rumbling by.	3-4
IV	MODERATE	Felt by people walking and many people inside.	4
V	SLIGHTLY STRONG	Felt by nearly everyone; sleepers awake; church bells ring; some dishes, windows broken.	4-5
VI	STRONG	Felt by all; trees sway; suspended objects swing, objects fall off shelves; heavy furniture moved	5-6
VII	VERY STRONG	Slight to mild damage of good designed and constructed buildings; walls crack; plaster falls.	6
VIII	DESTRUCTIVE	Slight to mild damage of good designed and constructed buildings; damage is great in poorly built structures; Moving cars uncontrollable; masonry fractures, poorly constructed buildings damaged.	6-7
IX	RUINOUS	Damage is considerable; Some houses collapse; ground cracks; pipes break open; building partially collapse and shifted off foundations.	7
X	DISASTROUS	Ground cracks profusely; many buildings destroyed; most masonry and frame structures destroyed; rails built; liquefaction and landslides widespread.	7-8
XI	VERY DISASTROUS	Most buildings and bridges collapse; roads, railways, pipes and cables destroyed; general triggering of other hazards.	8
XII	CATASTROPHIC	Total destruction: trees fall; ground rises and falls in waves.	8 or greater

Source: FEMA

Normal Fault—a normal or gravity fault is one where a fault block has moved downward as gravity moves a fault block down along an inclined plane. [Normal faults](#) are the result of an extension of the earth's crust.

Reverse Fault—a reverse fault is the opposite of a normal fault where a fault block has moved up an inclined fault plane, opposite of the movement that would be expected if gravity were the main force acting on the block. **Reverse faults** are a result of a shortening or compression of the earth's crust.

FIGURE 5.18: TYPES OF FAULTS



Source: National Park Service

Strike Slip Fault—a strike-slip fault is one where the movement is largely horizontal and oriented in the same direction as the fault trends. A **strike slip faults** result from forces acting horizontally.

Fault Plane—the rupture along which the movement of the fault blocks takes place can be a sharp planar feature, referred to as a **fault plane**. In this case, the direction the fault blocks moved (up, down, or sideways) can be fairly straightforward.

Fault Zone—is also common for the movement of fault blocks to take place across a zone consisting of multiple fault planes with small individual displacements. This zone of displacement is referred to as a fault zone and it can be a few inches wide, or it can consist of a series of large faults and may be measured in miles.

Liquefaction—liquefaction is an earthquake-related hazard involving geological conditions that pose a potential hazard to structures. **Liquefaction** is a complex process resulting in soils losing their bearing strength (i.e. they act more like a liquid than a solid) due to seismic-induced vibrations. The major concern is that during an earthquake the liquefaction soils became “liquid” and move laterally away from the foundation of buildings causing foundation failure or causing them to topple over.

Peak Ground Acceleration (PGA)—the maximum level of vertical or horizontal ground acceleration caused by an earthquake. The **PGA** is typically expressed as a percent of the acceleration due to gravity.

Magnitude—Magnitude is determined by quantitatively analyzing instrumental recordings utilizing specific, explicitly defined formulas. (Richter Scale measures magnitude)

Earthquakes originating in Mississippi are not the only threat; those originating in surrounding states have also affected Mississippi in the past. The greatest potential threat to Mississippi from earthquakes is from a strong event in the New Madrid Seismic Zone (NMSZ). **Figure 5.19** shows *New Madrid Seismic Zone*.

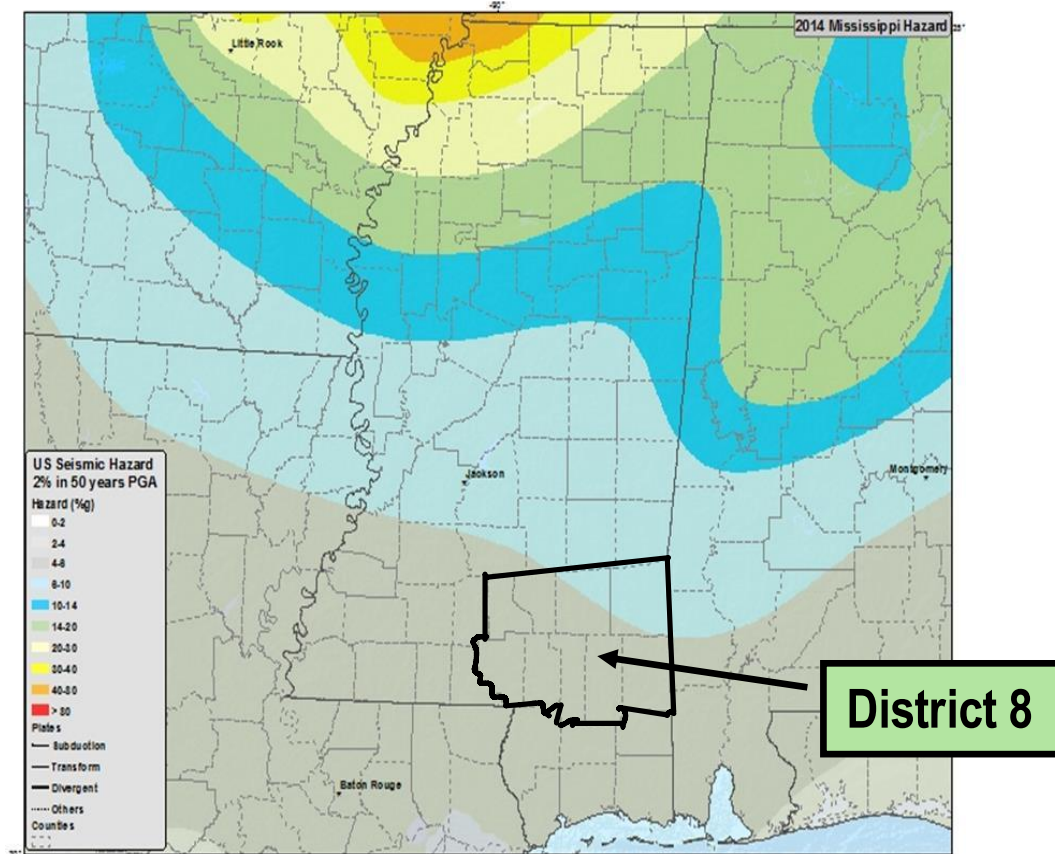
FIGURE 5.19: NEW MADRID SEISMIC ZONE



5.8.3 Location and Spatial Extent

Figure 5.20 shows the intensity level associated with the *MEMA District 8 Region*, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, all of the *MEMA District 8 Region* lies within an approximate zone of level “2” to “3” ground acceleration. This indicates that the region as a whole exists within an area of moderate seismic risk. **Source USGS** (District 8 is outlined in Black)

FIGURE 5.20: 2% SEISMIC HAZARD IN 50 YEARS



5.8.4 Historical Occurrences/Threats

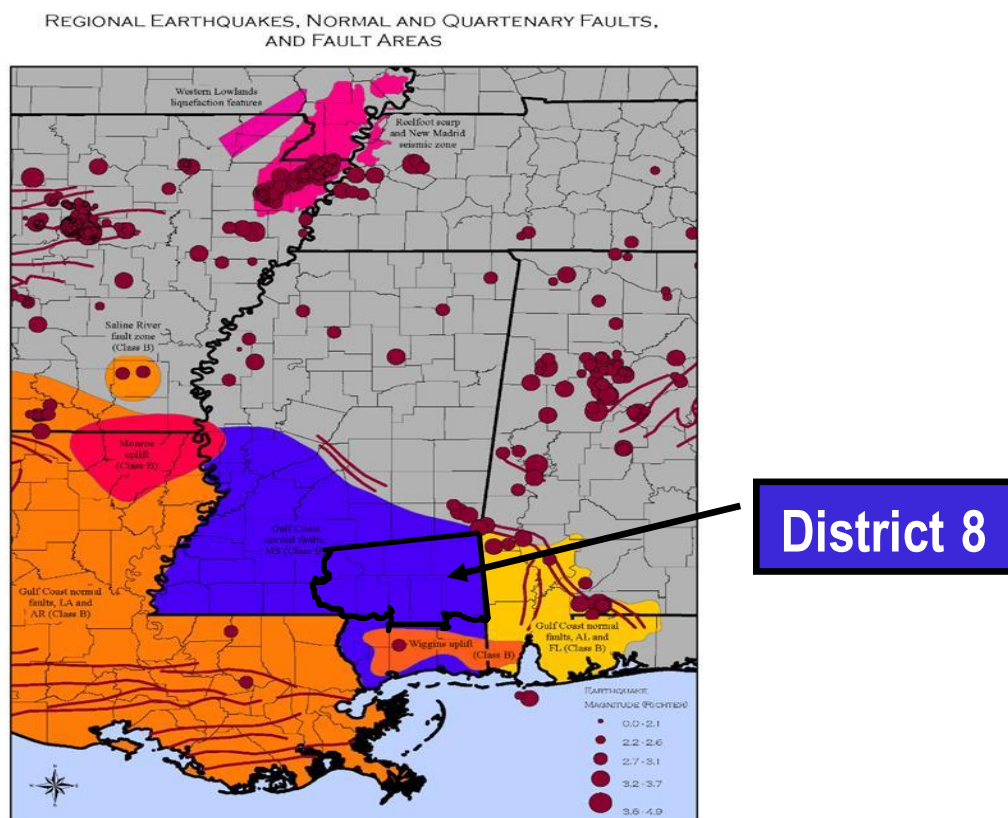
At least 8 earthquakes are known to have affected the *MEMA District 8 Region* since 1800. The strongest of these measured a V on the Modified Mercalli Intensity (MMI) scale. **Figure 5.22** provides a summary of earthquake events reported by the Department of Environmental Quality between 1853 and 2023, which is the most up-to-date information available detailed occurrence of each event including the date, distance from the epicenter, magnitude, and Modified Mercalli Intensity (if known) can be found in the jurisdiction-specific annexes. **Table 5.18** shows an earthquake that originated in *District 8*.

The greatest threat to Mississippi is from the *New Madrid Seismic Zone*. The earthquakes of 1811-1812, which originated along the *NMSZ*, shook many areas of Mississippi, reaching as far south as the Gulf Coast. Damage was reported throughout the state. The vibrations were so powerful that they rang church bells in Boston, Massachusetts. In 1843 an earthquake occurred at the southern end of the zone which shook the northern third of Mississippi strongly enough to cause damage. According to MS Department of Environmental Quality in their 2021 Publication, people in Mississippi should take precautions for another strong earthquake on the *New Madrid Seismic Zone*.

According to MDEQ, in 1944 the White River Fault Zone (WRFZ) was identified. In 1931, the Charleston earthquake in Tallahatchie County, Mississippi is believed to have been centered along this fault. This was the largest recorded Mississippi pi-centered earthquake with a magnitude of 4.0. The WRFZ runs from Grenada County, Mississippi northward approximately 280 miles to Newport, Arkansas. The WRFZ is an area that should be seen as a seismic hazard due to the close proximity of Grenada County to *MEMA District 8*.

District 8 also borders District 6 there where the counties of Lauderdale and Clark counties has produced more than 14 earthquakes in 30 years, according to Mississippi Department of Environmental Quality (MDEQ). Most of the earthquake events have occurred in Clarke County. This area is not well known. Historically, most earthquakes that are centered in Mississippi had a magnitude of 3.5 or less which cannot be felt (4.0 or greater can be felt). Every earthquake is unique and potentially dangerous. **Figure 5.21** shows Regional Earthquakes and Fault Areas Near *District 8*. **Table 5.19** shows earthquakes which have affected Mississippi.

FIGURE 5.21: REGIONAL EARTHQUAKES AND FAULT AREAS NEAR DISTRICT 8



Source: deltastate.edu

TABLE 5.18: EARTHQUAKES IN DISTRICT 8 IN MISSISSIPPI

Location	Date	Intensity	Magnitude	Felt
Collins, Covington County	January 20, 2021	II	2.1	Yes

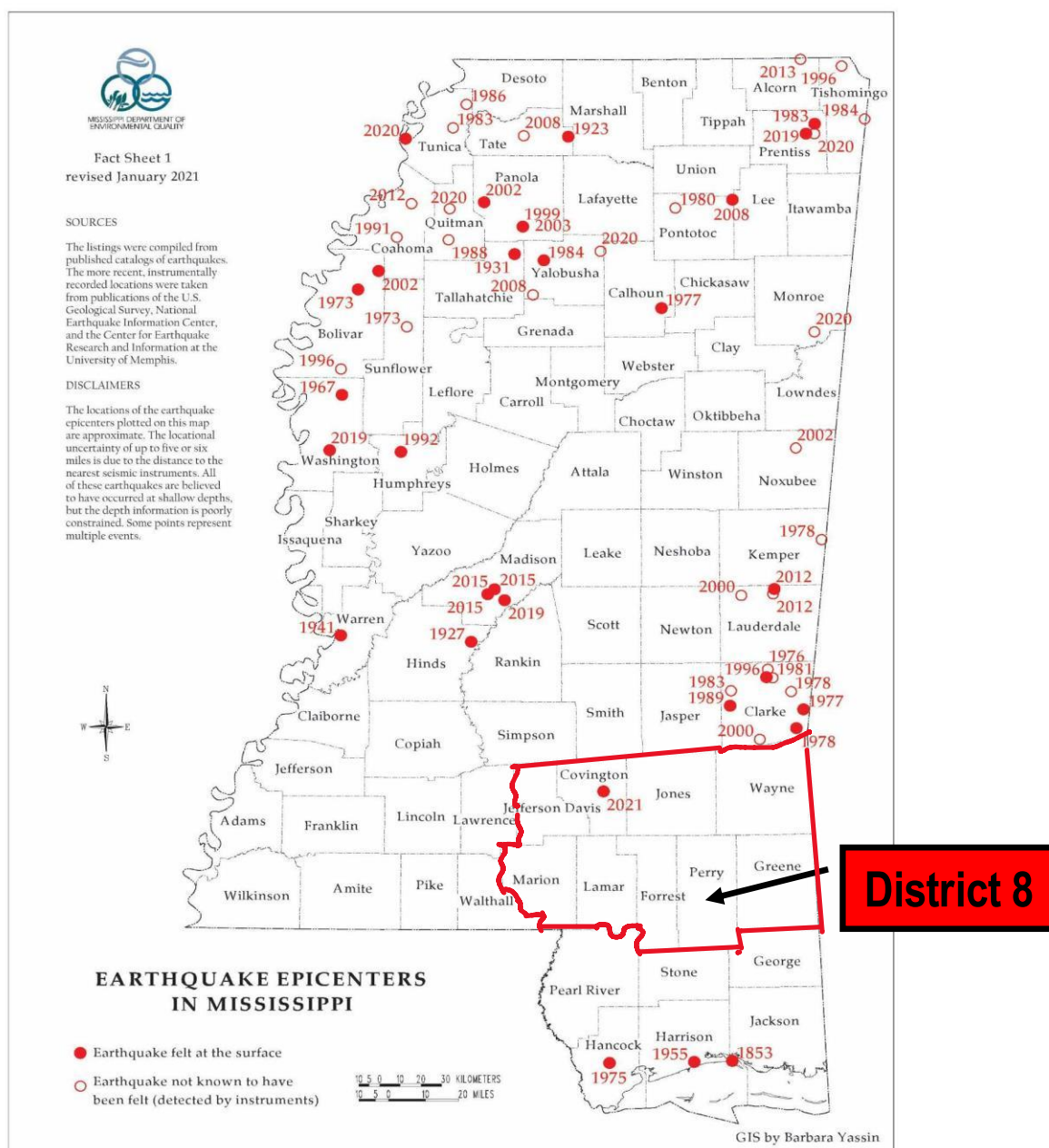
Source: Mississippi Department of Environmental Quality

TABLE 5.19: EARTHQUAKES WHICH HAVE AFFECTED MISSISSIPPI

Date	Origin	Richter Scale (Magnitude)	MMI (Intensity)	MMI in Mississippi	MEMA District 8 Counties Affected
1811-1812	New Madrid Seismic Zone	7.8 – 8.1	XI	<i>Unknown</i>	<i>Affected counties as far as the Gulf Coast</i>
3/29/2003	New Madrid Seismic Zone	<i>Unknown</i>	IV	I, II, III, IV	--
4/29/2003	8 miles ENE of Ft. Payne, AL	4.6	V	I, II, III, IV	--
11/7/2004	25 Miles SW of Tuscaloosa, AL	4.0	V	I, II, III, IV	--
2/10/2005	22 miles WSW of Blytheville, AR	4.1	V	I, II, III	Jones
5/1/2005	15 miles WSW of Blytheville, AR	4.1	IV	I, II, III	--
6/2/2005	10 miles NNW of Dyersburg, TN	4.0	III	I	--
9/10/2006	253 miles SSW of Apalachicola, FL	6.0	VI	I, II, III, IV	Covington, Jones, Marion

Figure 5.22 indicates that earthquakes have occurred in Mississippi and in *District 8*.

FIGURE 5:22: EARTHQUAKES THROUGHOUT MISSISSIPPI



Source: Mississippi Department of Environmental Quality

5.8.5 Probability of Future Occurrences

According to MS Department of Environmental Quality in their 2021 Publication, people in Mississippi should take precautions for another strong earthquake on the *New Madrid Seismic Zone* because the southern end is only about 40 miles from the NW corner of Mississippi. Although the prediction states for MS to prepare, the probability of significant, damaging earthquake events affecting the *MEMA District 8 Region* is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the region. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

5.9 LANDSLIDE

5.9.1 Background

According to FEMA a **landslide** is the movement of a mass of rock, debris, or earth down a slope. Another definition states that a **landslide** is the downward and outward movement of slope-forming soil, rock, and vegetation, which is driven by gravity. Landslides may be triggered by both natural and human-caused changes in the environment, including heavy rain, rapid snow melt, steepening of slopes due to construction or erosion, earthquakes, volcanic eruptions, and changes in groundwater levels.

There are several types of landslides: *rock falls*, *rock topple*, *slides*, and *flows*. **Rock falls** are rapid movements of bedrock, which result in bouncing or rolling. A **topple** is a section or block of rock that rotates or tilts before falling to the slope below. **Slides** are movements of soil or rock along a distinct surface of rupture, which separates the slide material from the more stable underlying material. **Mudflows**, sometimes referred to as *mudslides*, *mudflows*, *lahars*, or *debris avalanches*, are fast-moving rivers of rock, earth, and other debris saturated with water. They develop when water rapidly accumulates in the ground, such as heavy rainfall or rapid snowmelt, changing the soil into a flowing river of mud or “*slurry*.” **Slurry** can flow rapidly down slopes or through channels and can strike with little or no warning at avalanche speeds. **Slurry** can travel several miles from its source, growing in size as it picks up trees, cars, and other materials along the way. As the flows reach flatter ground, the **mudflow** spreads over a broad area where it can accumulate in thick deposits.

Landslides are typically associated with periods of heavy rainfall or rapid snow melt and tend to worsen the effects of flooding that often accompanies these events. In areas burned by forest and brush fires, a lower threshold of precipitation may initiate landslides. Some landslides move slowly and cause damage gradually, whereas others move so rapidly that they can destroy property and take lives suddenly and unexpectedly.

Among the most destructive types of debris flows are those that accompany volcanic eruptions. A spectacular example in the United States was a massive debris flow resulting from the 1980 eruptions of Mount St. Helens, Washington. Areas near the bases of many volcanoes in the Cascade Mountain Range of California, Oregon, and Washington are at risk from the same types of flows during future volcanic eruptions.

Areas that are generally prone to **landslide hazards** include previous **landslide** areas, the bases of steep slopes, the bases of drainage channels, and developed hillsides where leach-field septic systems are used. Areas that are typically considered safe from landslides include areas that have not moved in the past, relatively flat-lying areas away from sudden changes in slope, and areas at the top or along ridges set back from the tops of slopes.

Monetary losses from **landslides** come from the destruction of infrastructure, homes and businesses; loss of life; disruption of transportation routes; disruption and contamination of water supplies; and the difficulty of both removing and stabilizing landslide material. Even a small landslide that damages a few homes can cost millions of dollars. Losses from **landslides** in the United States were estimated in 1980 to exceed \$1 billion per year. More recently, the U.S. Geological Survey estimated annual losses to be between \$2 billion and \$4 billion per year. However, **landslide** costs across the country are not currently tracked or measured in a uniform way by any one agency, so this figure is likely to be an underestimate.

5.9.2 Location and Spatial Extent

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. **Landslides** are possible throughout the *MEMA District 8 Region*.

According to **Figure 5.21** below, nearly the entire region falls under a moderate susceptibility/low incidence (light pink). This indicates that less than 1.5 percent of the area is involved in land sliding. The areas in yellow are defined as low incidence. The areas in orange, however, indicate that a high susceptibility and moderate incidence to land sliding activity is present. In addition, there is a small area of land in Wayne County (depicted in orange) reported as high susceptibility and moderate incidence. This area is the area at greatest risk to land sliding according to the United States Geological Survey data.

Figure 5.20 and **Figure 5.21** delineates areas where large numbers of landslides have occurred and/or areas that are susceptible to land sliding in *District 8* and the conterminous United States.

FIGURE 5.20: LANDSLIDE SUSCEPTIBILITY MAP OF THE MEMA DISTRICT 8 REGION

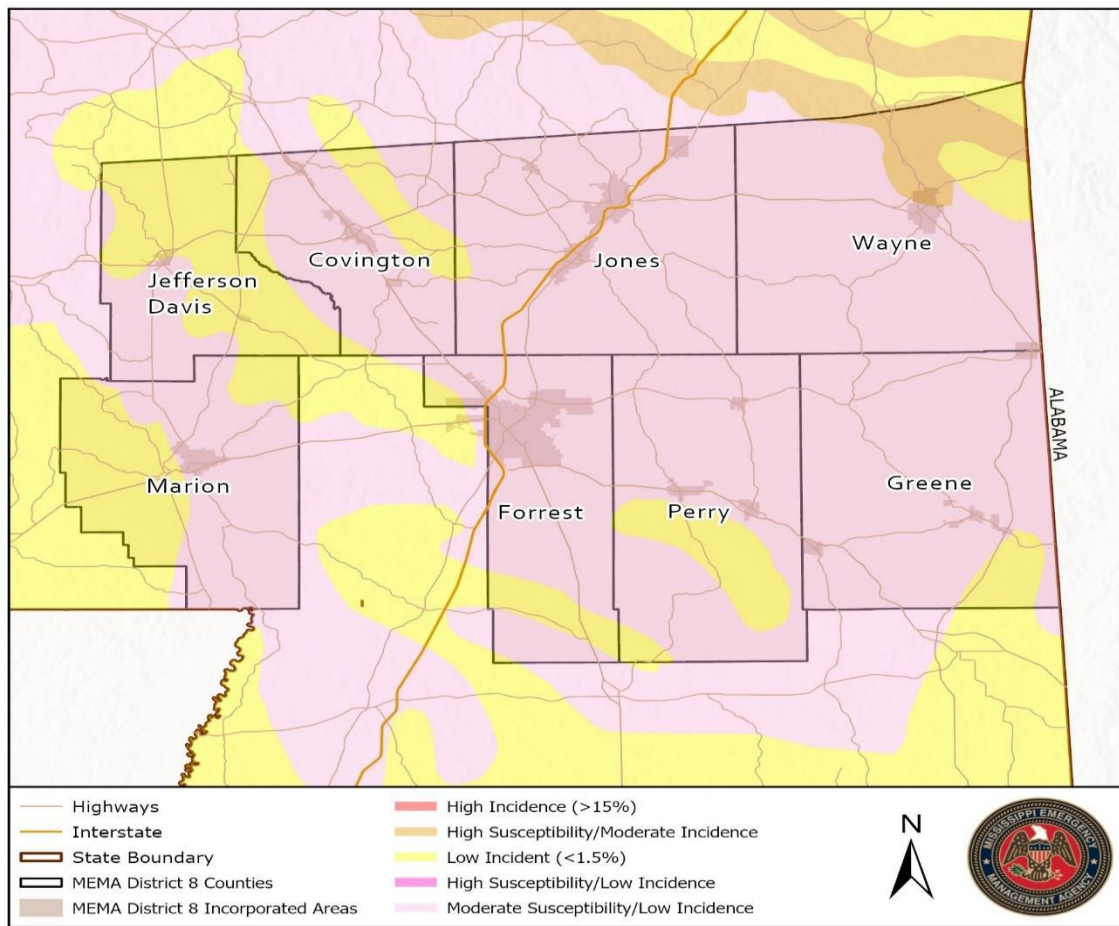
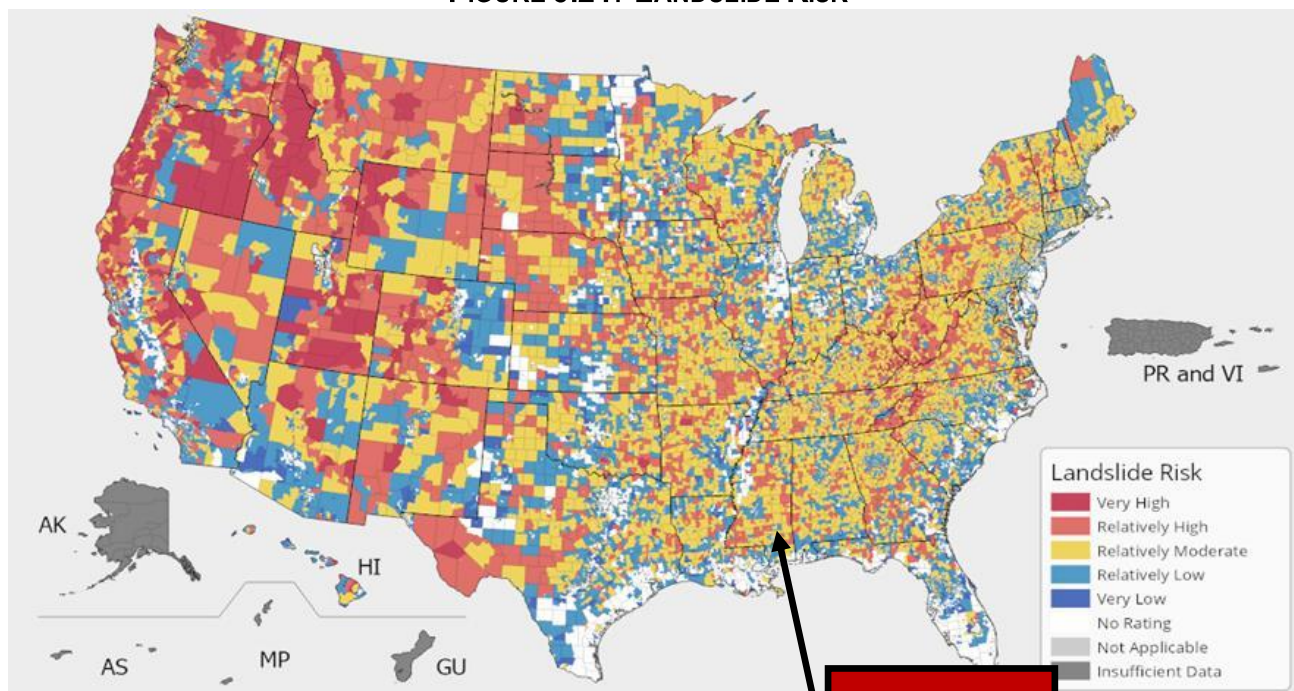


FIGURE 5.21: LANDSLIDE RISK



Source: FEMA

5.9.3 Probability of Future Occurrences

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that the nearly all areas in the *MEMA District 8 Region* have a low landslide incidence rate. However, some areas are reported as having moderate or high susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in the *MEMA District 8 Region* have greater risk than others given factors such as steepness on slope and modification of slopes.

If scientists are correct, increasing temperatures could lead to increased incidents of heavy rain and storms. The increasing of these could lead to increased risks of land sliding.

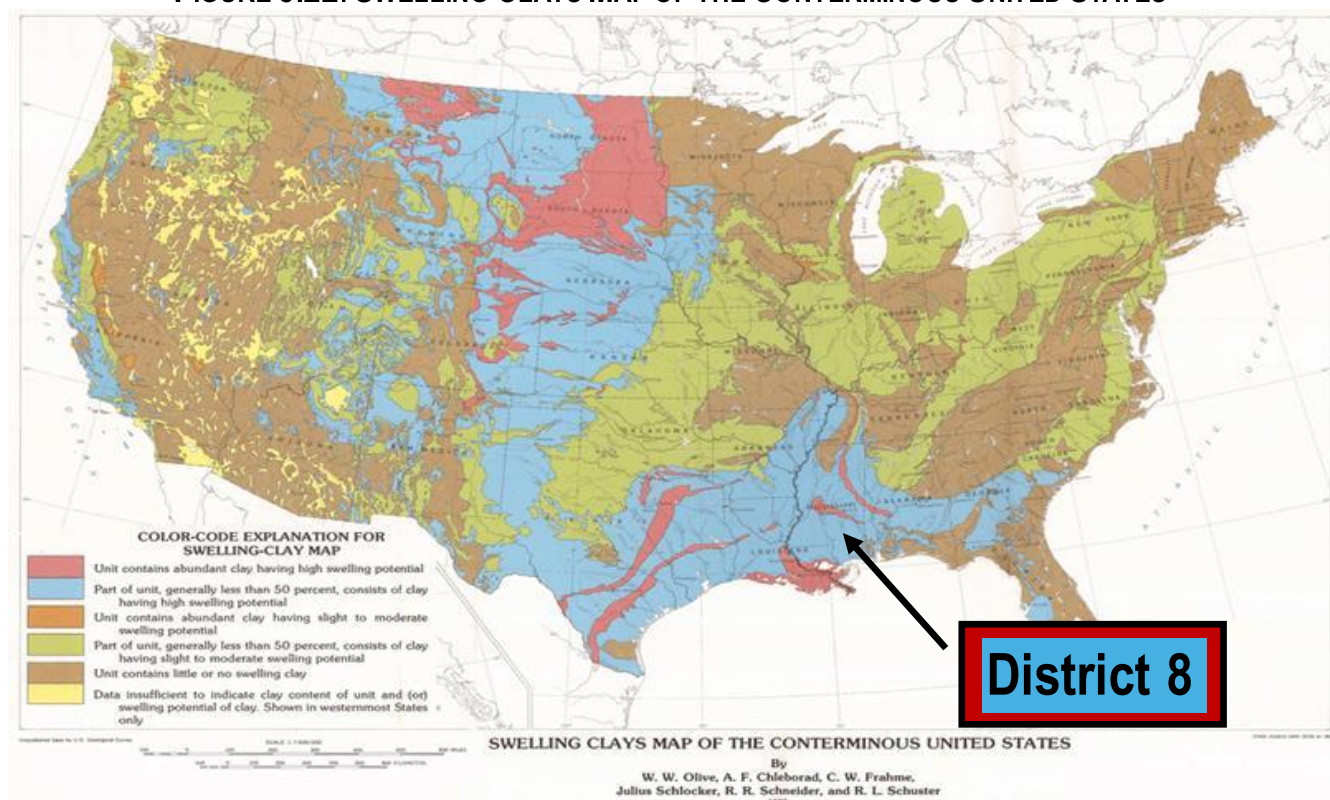
5.10 EXPANSIVE SOILS

5.10.1 Background

Expansive soils, also called shrink-swell soils, are soils that will exhibit some degree of volume change with variations in moisture conditions. Depending upon the supply of moisture in the ground, expansive soils will experience changes in volume of up to thirty percent or more. The most important properties affecting degree of volume change in a soil are clay mineralogy and the aqueous environment. Generally speaking, expansive soils often appear sticky when wet and are characterized by surface cracks when dry.

The effects of expansive soils are typically experienced in regions of moderate to high precipitation, where periods of drought are followed by periods of rainfall. Expansive soils become a problem when structures are built upon them without taking proper design precautions into account with regard to soil type. Cracking in walls and floors can be minor or can be severe enough for the home to be structurally unsafe. Expansive soils are known to cause adverse effects on structures and infrastructure throughout the United States. **Figure 5.22** delineates areas underlain by soils with swelling potential in the conterminous United States.

FIGURE 5.22: SWELLING CLAYS MAP OF THE CONTERMINOUS UNITED STATES



Source: USGS

5.10.2 Location and Spatial Extent

Due to the amount of clay minerals present in the *MEMA District 8 Region*, expansive soils present a threat to the region. Areas underlain by soils with swelling potential are shown in **Figure 5.22**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential and the areas in brown contain little or no swelling clays.

5.10.3 Historical Occurrences

There is no historical record of significant expansive soil events in the *MEMA District 8 Region*. However, expansive soils can cause considerable damage to structural foundations in the region, although they do not pose a significant threat to human life.

5.10.4 Probability of Future Occurrences

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

5.11 WINTER STORM AND FREEZE

5.11.1 Background

A [winter storm](#) can range from a moderate snow over a period of a few hours to blizzard conditions with blinding wind-driven snow that lasts for several days. Events may include snow, sleet, freezing rain, or a mix of these wintry forms of precipitation. Some winter storms might be large enough to affect several states, while others might affect only localized areas. Occasionally, heavy snow might also cause significant property damages, such as roof collapses on older buildings.

All [winter storm events](#) have the potential to present dangerous conditions to the affected area. Larger snowfalls pose a greater risk, reducing visibility due to blowing snow and making driving conditions treacherous. A heavy snow event is defined by the National Weather Service as an accumulation of 4 or more inches in 12 hours or less. A blizzard is the most severe form of winter storm. It combines low temperatures, heavy snow, and winds of 35 miles per hour or more, which reduces visibility to a quarter mile or less for at least 3 hours. [Winter storms](#) are often accompanied by sleet, freezing rain, or an ice storm. Such freeze events are particularly hazardous as they create treacherous surfaces.

Ice storms are defined as storms with significant amounts of freezing rain and are a result of cold air damming (CAD). CAD is a shallow, surface-based layer of relatively cold, stably stratified air entrenched against the eastern slopes of the Appalachian Mountains. With warmer air above, falling precipitation in the form of snow melts, then becomes either super-cooled (liquid below the melting point of water) or re-freezes. In the former case, super-cooled droplets can freeze on impact (freezing rain), while in the latter case, the re-frozen water particles are ice pellets (or sleet). Sleet is defined as partially frozen raindrops or refrozen snowflakes that form into small ice pellets before reaching the ground. They typically bounce when they hit the ground and do not stick to the surface. However, it does accumulate like snow, posing similar problems and has the potential to accumulate into a layer of ice on surfaces. Freezing rain, conversely, usually sticks to the ground, creating a sheet of ice on the roadways and other surfaces. All of the [winter storm elements](#) – snow, low temperatures, sleet, ice, etcetera – have the potential to cause significant hazard to a community. Even small accumulations can down power lines and trees limbs and create hazardous driving conditions. Furthermore, communication and power may be disrupted for days.

5.11.2 Location and Spatial Extent

Nearly the entire continental United States is susceptible to [winter storm](#) and [freeze events](#). Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local [winter weather](#). The *MEMA District 8 Region* is not typically affected by major severe winter weather conditions and seldom receives extremely devastating [winter weather](#), even during the winter months. Given the atmospheric nature of the hazard the entire region has uniform exposure to a winter storm.

5.11.3 Historical Occurrences

According to the National Centers for Environmental Information, there have been a total of 82 recorded winter storm events in the *MEMA District 8 Region* since 2000 (**Table 5.20**). These events resulted in nearly \$7.2M in damages. Detailed information on the recorded winter storm events can be found in the jurisdiction-specific annexes.

TABLE 5.20: SUMMARY OF WINTER STORM EVENTS IN THE MEMA DISTRICT 8 REGION (2000-2024)

Location	Extreme Cold / Wind Chill	Winter Weather Events	Property Loss & Crop Loss
Covington County	1	11	\$2,125,000
Forrest County	1	9	\$620,000
Greene County	0	8	\$0
Jefferson Davis County	1	13	\$1,960,000
Jones County	0	13	\$1,705,000
Marion County	1	9	\$705,000
Perry County	0	7	\$0
Wayne County	0	12	\$10,000
Mema District 8 Total:	4	82	\$7,125,000

Source: NCED/NOAA

There have been several severe winter weather events in the *MEMA District 8 Region*. The text below describes some of the major events and associated impacts on the region. Similar impacts can be expected with severe winter weather.

January 2002 Winter Storm

A winter storm produced heavy snow across portions of southeast Mississippi. The heaviest snow recorded during the storm was four to four- and one-half inches. Icy bridges made traveling across the region very treacherous. As a result, several accidents occurred with two fatalities in Jones County.

January 2008 Winter Storm

This storm produced heavy snow across the region, with an average of three to four inches of snow. Some heavier amounts, between four to five inches, also fell in isolated areas. At the height of the snow, temperatures fell to near freezing, and accumulations occurred on roadways resulting in a number of traffic accidents. Additionally, some power outages occurred in the heaviest snow band due to the weight of wet snow on limbs and lines. The heaviest snow fell in the areas around Covington, Jefferson Davis, and Jones Counties.

January 2018 Winter Storm

A winter weather event occurred across the area beginning on January 16th and on into January 17th across the Gulf Coast. This event came with measurable snow with low temperatures in the 20's. The winter accumulation resulted in very hazardous traveling conditions particularly over bridges and overpasses. Several roads were closed throughout the area. The National Weather Service indicated the area received two to three inches of snow.

February 2021 Ice Storm

A light glaze of freezing rain occurred followed by a period of sleet and snow. One to three inches of snow and sleet fell, and heavy sleet fell across the county. Accumulations of one to three inches occurred across the county. Roads were covered and icy. Area transportation was greatly impacted in Covington, Forrest, Marion, Jefferson Davis, and Jones Counties.

December 2022 Winter Storm

The coldest airmass since December of 1989 descended upon the Mid-South right before Christmas. Gusty north winds combined with very cold temperatures produced wind chills of 10 to 20 degrees below zero across north Mississippi from late Thursday, December 22nd into Friday, December 23rd. Temperatures dropped to between 0 and 5 degrees above zero during the morning of Friday, December 23rd. Numerous frozen pipes occurred in residential houses and businesses across the region. Wind chills remained below zero into the morning hours of December 24th. Wind chill values fell to 15 degrees below zero and low temperatures reached around 5 degrees above zero.

Winter storms throughout the planning area have several negative externalities including hypothermia, cost of snow and debris cleanup, business and government service interruption, traffic accidents, and power outages. Furthermore, citizens may resort to using inappropriate heating devices that could cause a fire or an accumulation of toxic fumes.

There has been one Disaster Declaration in District 8 for Severe Winter Weather in 2021.

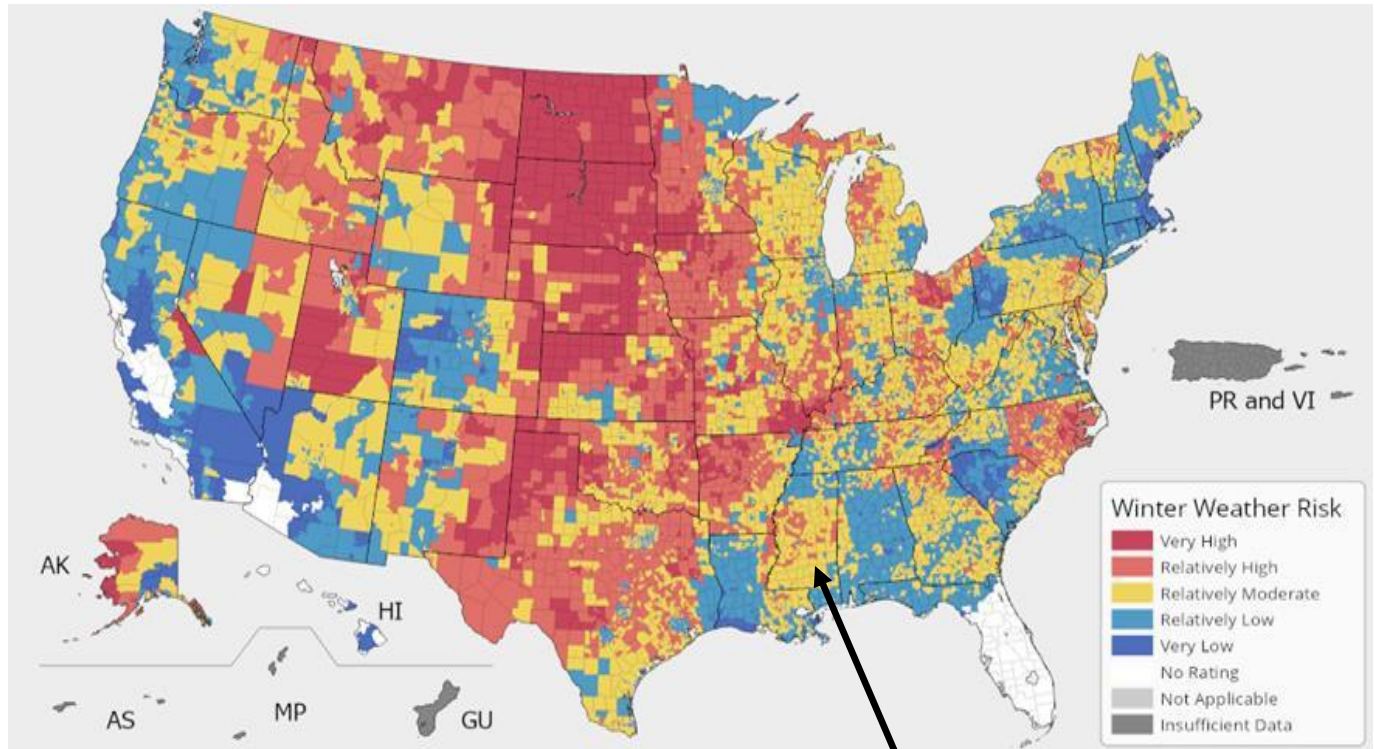
January 2024 Winter Weather

Light accumulations of freezing rain and sleet caused slick road conditions across the county, and a single car accident occurred on Interstate 59 near Exit 90 due to slick road conditions in Jones County.

5.11.4 Probability of Future Occurrences

Winter storm events will continue to occur in the *MEMA District 8 Region*. Based on historical information, the annual probability is likely (between 10 and 100 percent).

FIGURE 5.22: FEMA WINTER WEATHER RISK MAP



Source: FEMA

In the National Risk Index, a Winter Weather Risk Index score and rating represent a community's relative risk for Winter Weather when compared to the rest of the United States. See **Figure 5.22**

District 8

5.12 HURRICANE AND TROPICAL STORM

5.12.1 Background

Hurricanes and **tropical storms** are classified as cyclones and defined as any closed circulation developing around a low-pressure center in which the winds rotate counterclockwise in the Northern Hemisphere (or clockwise in the Southern Hemisphere) and whose diameter averages 10 to 30 miles across. A **tropical cyclone** refers to any such circulation that develops over tropical waters. **Tropical cyclones** act as a “safety-valve,” limiting the continued build-up of heat and energy in tropical regions by maintaining the atmospheric heat and moisture balance between the tropics and the pole-ward latitudes. The primary damaging forces associated with these storms are high-level sustained winds, heavy precipitation, and tornadoes.

The key energy source for a **tropical cyclone** is the release of latent heat from the condensation of warm water. Their formation requires a low-pressure disturbance, warm sea surface temperature, rotational force from the spinning of the earth, and the absence of wind shear in the lowest 50,000 feet of the atmosphere. The majority of **hurricanes** and **tropical storms** form in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico during the official Atlantic hurricane season, which encompasses the months of June through November. The peak of the Atlantic hurricane season is in early to mid-September and the average number of storms that reach hurricane intensity per year in the Atlantic basin is about six.

According to FEMA Hurricane-related damage has significantly risen over the past 20 years. In the US from 1950 to 1989, hurricanes caused \$1.6 billion dollars in damage. From 1989 to 1995, the number jumped to \$6.2 billion, and then to \$150 billion for 2004-2005. From 2006-2015, the continental US experienced an 11-year “**major Hurricane**” drought which ended with a very active and costly 2017 hurricane season. During the 11-year drought, there have been sizable growth patterns in coastal population, housing size, and nominal wealth in the most hurricane prone areas. This season cost Texas and Florida an overall economic damage losses in excess of \$125 billion.

The costliest hurricanes in US history are:

- **Hurricane Katrina (2005): \$192.5 billion 50 knots**
- **Hurricane Harvey (2017): \$152.5 billion 40 knots**
- **Hurricane Ian (2022): \$114.0 billion**
- **Hurricane Maria (2018): \$109.8 billion 70 knots**
- **Hurricane Sandy (2012): \$84.6 billion 40 knots**
- **Hurricane Ida (2021): \$78.7 billion 60 knots**

Source: *Weather.com & climatecentral.org*

As an incipient hurricane develops, barometric pressure (measured in millibars or inches) at its center falls and winds increase. If the atmospheric and oceanic conditions are favorable, it can intensify into a tropical depression. When maximum sustained winds reach or exceed 39 miles per hour, the system is designated a tropical storm, given a name, and is closely monitored by the National Hurricane Center in Miami, Florida. When sustained winds reach or exceed 74 miles per hour the storm is deemed a hurricane. Hurricane intensity is further classified by the Saffir-Simpson Scale (**Table 5.21**), which rates **hurricane intensity** on a scale of 1 to 5, with 5 being the most intense.

The following are terms to describe hurricanes and tropical storms:

Tropical Depression—A tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1-minute average) is 33 knots (38 mph or 62 km/hr.) or less.

Tropical Storm—A tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1-minute average) ranges from 34 knots (39 mph or 63 km/hr.) to 63 knots (73 mph or 118 km/hr.).

Hurricane—A tropical cyclone in which the maximum sustained surface wind speed (using the U.S. 1-minute average) ranges from 64 knots (74 mph or 119 km/hr.) or higher.

TABLE 5.21: SAFFIRE-SIMPSON SCALE

Category	Maximum Sustained Wind Speed (MPH)
1	74—95 mph 64-82 knots 119-153 km/h
2	96—110 mph 83—95 knots 154—177 km/h
3	111—129 mph 96—112 knots 178—208 km/h
4	130—156 mph 113—136 knots 209—251 km/h
5	157 + mph 137 + knots 252 + km/h

The Saffir-Simpson Scale categorizes [hurricane intensity](#) linearly based upon maximum sustained winds, barometric pressure and storm surge potential, which are combined to estimate potential damage. Categories 3, 4, and 5 are classified as “**major**” [hurricanes](#) and, while hurricanes within this range comprise only 20 percent of total tropical cyclone landfalls, they account for over 70 percent of the damage in the United States. **Table 5.22** describes the damage that could be expected for each category of hurricane. Damage during [hurricanes](#) may also result from spawned tornadoes, storm surge, and inland flooding associated with heavy rainfall that usually accompanies these storms.

TABLE 5.22: HURRICANE DAMAGE CLASSIFICATIONS

Storm Category	Damage Level	Description of Damages	Photo Example
1	MINIMAL	<u>Very dangerous winds will produce some damage:</u> Well-constructed frame homes could have damage to roof, shingles, vinyl siding, and gutters. Large branches of trees will snap, and shallowly rooted trees may be toppled. Extensive damage to powerlines and poles likely will result in power outages that could last a few to several days.	
2	MODERATE	<u>Extremely dangerous winds will cause extensive damage:</u> Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped and uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.	
3	EXTENSIVE	<u>Devastating damage will occur:</u> Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.	
4	EXTREME	<u>Catastrophic damage will occur:</u> Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or of the exterior walls. Most trees will be snapped or uprooted, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to months. Most of the area will be uninhabitable for weeks or months.	
5	CATASTROPHIC	<u>Catastrophic damage will occur:</u> A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks to months.	

Source: National Hurricane Center; FEMA

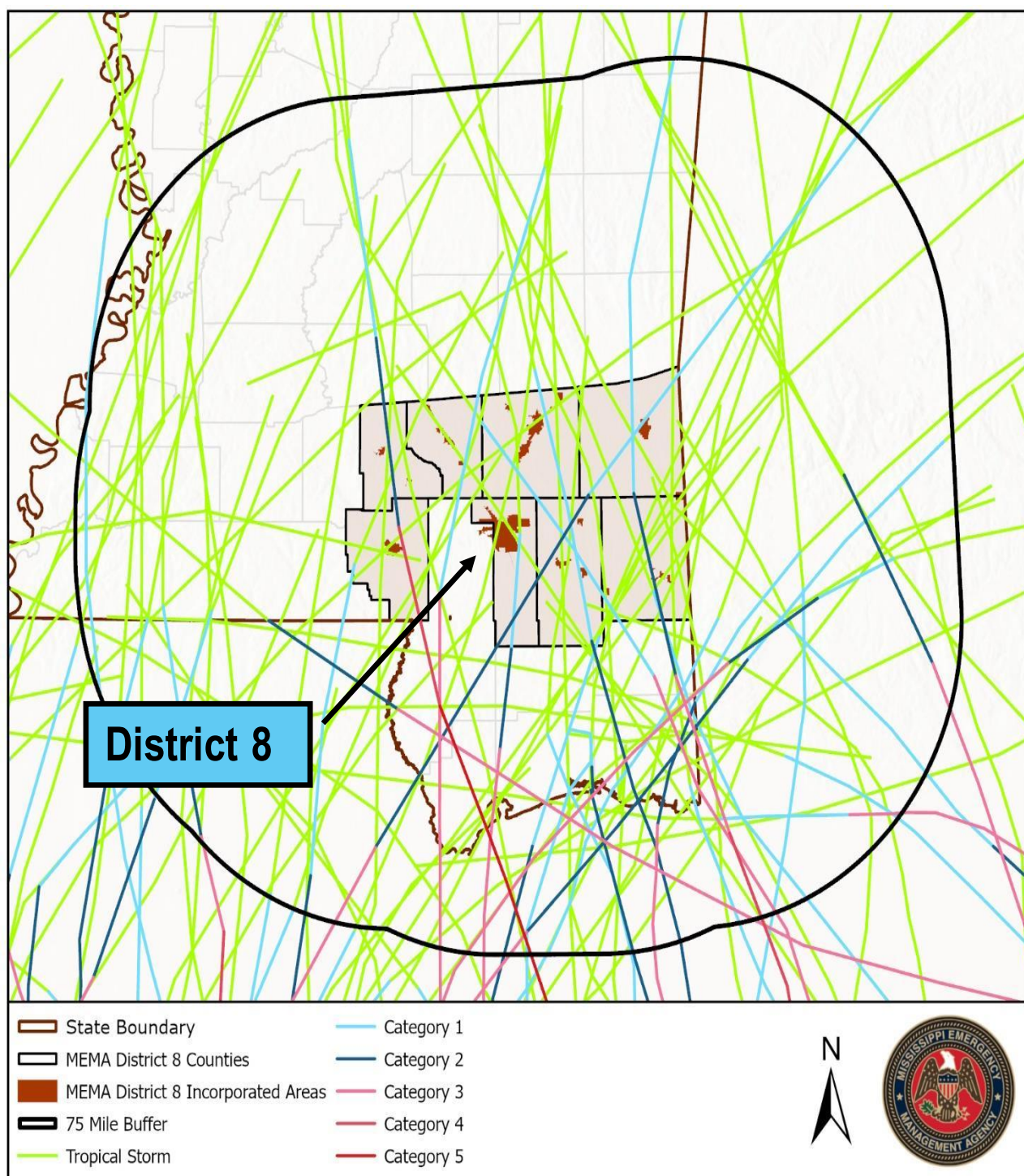
5.12.2 Location and Spatial Extent

Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact the region. All areas in the *MEMA District 8 Region* are equally susceptible to hurricane and tropical storms.

5.12.3 Historical Occurrences

According to the National Hurricane Center's historical storm track records, approximately 69 hurricane or tropical storm tracks have passed within 75 miles of the *MEMA District 8 Region* since 1851 as shown in **Figure 5.23**. Thirty-one of these tracks passed directly through the region. Notable storms include Hurricane Camille (1969), Hurricane Frederic (1979), and Hurricane Katrina (2005). More detailed information is available in the county annexes.

FIGURE 5.23: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF THE MEMA DISTRICT 8 REGION



Federal Declarations

Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1979 (Hurricane Frederic), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Dennis), 2005 (Hurricane Katrina), 2008 (Hurricane Gustav), 2012 (Hurricane Isaac), 2017 (Hurricane Nate), 2020 (Hurricane Zeta), and 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial damage in the area due to high winds and flooding.

Flooding and high winds from [hurricanes](#) and [tropical storms](#) can cause damage throughout the region. Many anecdotes are available from NCEI for the major storms that have impacted the area as found below:

Hurricane Erin – August 20, 1995

Hurricane Erin moved out of Washington County, Alabama into Greene and Wayne Counties in Mississippi. The storm moved generally along Highway 45 passing just south of Waynesboro. Trees and power lines were blown down across Northern Greene, Northern Perry and most of Wayne Counties as Erin moved northwest. Some homes were damaged along Highway 45 and in the cities of Buckatunna and Waynesboro. Most of the damage was from trees falling on homes or shingles being blown from roofs. Wind speeds of 50 to 60 mph were estimated in Waynesboro. Preliminary damage estimates in these three counties was around \$100 thousand.

Hurricane Georges – September 25, 1998

Hurricane Georges, a strong Category 2 hurricane moved slowly northwest across the Gulf of Mexico toward southeast Louisiana and coastal Mississippi on the September 25 and September 26. As the hurricane approached the mouth of the Mississippi River on September 27, it slowly turned toward the north making landfall along the Mississippi Coast just to the east of Biloxi, MS on September 28. Hurricane Georges resulted in damage from heavy rains and persistent winds. Trees and power lines were blown down. Cotton, soybean, and pecan crops were almost totally destroyed.

Tropical Storm Isidore – September 26, 2002

Tropical Storm Isidore moved onshore along the Louisiana coast early in the morning of September 26. The weakening storm then moved northeast across eastern Mississippi during the day. The heavy rainfall associated with the storm resulted in significant river and flash flooding across much of Mississippi. Twenty-four-hour rainfall totals between 5 and 10 inches were common over much of Mississippi, especially in the southern part of the state, where twenty-four-hour amounts exceeded 9 inches near Hattiesburg. Gradient wind gusts between 35 and 45 miles per hour combined with the saturated ground to lead to numerous downed trees and powerlines over the state. Most of the damage was seen along and east of the Natchez Trace, near the path of the storm's diffuse center. One indirect fatality was reported just east of the Kalem community in Scott County. Here, a falling tree struck a truck driven by a 31-year-old male. Damage from Isidore was an estimated \$500,000.

Hurricane Lili – October 3, 2002

Hurricane Lili brought thunderstorm bands, strong winds, and associated tornadoes that created damage across central Mississippi. Most of the damage was caused by downed trees. The highest actual wind gust was measured at 56 miles per hour. Ground over most of the area was saturated from the combined rainfall of Lili and Isidore (which affected the same areas a week earlier), and this allowed tropical storm force winds to easily push down trees area-wide. Rainfall amounts were over 3 inches in the most persistent rainbands. Estimated damage across central Mississippi from Lili was \$500,000.

Tropical Storm Bill – June 30, 2003

Tropical Storm Bill tracked along Interstate 59. Heavy rainfall caused flash flooding. Forty-eight-hour rainfall totals ranged between 3-7 inches, mainly across SE Mississippi. Gradient wind gusts between 30 and 40 mph combined with saturated soils downed numerous trees very close to center's track. Damage from Bill was an estimated \$100,000.

Hurricane Ivan – September 16, 2004

Thousands of trees were blown down across Eastern Mississippi during the event as well as hundreds of power lines. The strong wind itself did not cause much structural damage, however the fallen trees did. These downed trees accounted for several hundred homes, mobile homes and businesses to be damaged or destroyed. Most locations across Eastern Mississippi reported sustained winds between 30 and 40 mph with Tropical Storm force gusts between 48 and 54 mph. The strongest reported winds occurred in Newton, Lauderdale and Oktibbeha Counties.

Overall, rainfall totals were held in check as Ivan steadily moved north. The heaviest rains were confined to far Eastern Mississippi where 3 to 4 inches fell over a 15-hour period. Due to the duration of the rain no flooding was reported.

Hurricane Dennis – July 10, 2005

Hurricane Dennis made landfall during the afternoon of July 10th near Navarre Beach Florida as a category 3 Hurricane. The storm moved north-northwest across Southwest Alabama and then into East-Central Mississippi and finally across Northeast Mississippi during the overnight hours. Wind gusts over tropical storm force were common across areas east of a line from Starkville to Newton to Hattiesburg. These winds caused several hundred trees to uproot or snap and took down numerous power lines. Additionally, a total of 21 homes or businesses sustained minor to major damage from fallen trees or gusty winds.

Heavy rainfall was not a major issue as Dennis steadily moved across the region. Rainfall totals between 2 and 5 inches fell across Eastern Mississippi over a 12-hour period. One indirect fatality occurred in Jasper County from an automobile accident due to wet roads.

Hurricane Katrina – August 25, 2005

Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20.

Devastation from Hurricane Katrina was widespread across the region. Hurricane force winds were common across the area. The region received sustained winds of 60-80 mph with gusts ranging from 80-120 mph. There was widespread damage to trees and power lines. Wind damage to structures was also widespread, with roofs blown off or partially peeled. Hundreds of signs were shredded or blown down. Businesses sustained structural damage. Power outages lasted from a few days to as long as four weeks. Agriculture and timber industries were severely impacted. Row crops, including cotton, rice, corn, and soybeans, took a hard hit. Other impacted industries were the catfish industry, dairy and cattle industry, and nursery businesses.

Hurricane Rita – September 5, 2005

Hurricane Rita brought heavy rainfall, tropical storm force winds, and tornados to the region. Rainfall amounts ranged from 4-7 inches, which resulted in flooding. Winds between 25-35 mph, with gusts up to 40-50 mph, downed trees and power lines.

Hurricane Gustav – September 1, 2008

As hurricane Gustav moved south of the area, tropical depression conditions spread into southeast Mississippi. The winds increased during the early morning of September 1 and ended during the early afternoon as Gustav moved farther away. No damage was reported from the winds. Several mesonet sites had sustained winds of 20-30 mph with higher gusts. Rainfall estimates across the area were 3-5 inches which resulted in some minor street flooding. Parts of southeast Mississippi were put under a tropical storm wind warning in the early morning hours of August 31 and the warning continued in effect until the late evening of September 1.

Hurricane Issac—August 30, 2012

Hurricane Isaac was a tropical cyclone that spent most of its life as a tropical storm but became a category 1 hurricane (on the Saffir-Simpson Hurricane Wind Scale) a few hours before making landfall in southeastern Louisiana. The cyclone produced heavy rainfall and inland flooding across portions of the Caribbean as it moved through the Lesser Antilles, and it made land falls along the southwestern peninsula of Haiti and extreme eastern Cuba. Isaac became a large tropical cyclone and caused extensive storm surge and inland flooding over southern Mississippi and southeastern Louisiana. Isaac is estimated to be directly responsible for 34 deaths: 24 in Haiti, 5 in the Dominican Republic, and 5 in the United States. Most of extreme southwestern Alabama, southern Mississippi and southeastern Louisiana received greater than 10 inches of rain, which produced both flash flooding and river flooding.

Hurricane Gordon (Tropical Depression) – September 9, 2018

As Tropical Storm Gordon moved further inland, it was downgraded to a tropical depression. Gusty winds still occurred as the center moved through central Mississippi. A few trees were blown down across portions of Covington County.

Hurricane Ida—August 30-31, 2021

As a tropical cyclone, Ida produced widespread heavy rains along portions of the northern Gulf coast states northward and eastward into the Tennessee Valley. Rainfall totals of more than 10 inches occurred over portions of southeastern Louisiana, southeastern Mississippi, and southwestern Alabama, with a maximum storm total of 15.04 inches at Ponchatoula, Louisiana, and a storm total of 13.65 inches near Kiln, Mississippi. Rainfall totals of 5–9 inches with locally higher amounts occurred over much of the remainder of eastern Mississippi, southwestern Alabama, and the western Florida Panhandle, and 3-5 inches in western and northern Alabama, northwestern Georgia, eastern Tennessee, and central and eastern Kentucky. These rains produced freshwater flooding, especially along the Tangipahoa, Tchefuncte, Tickfaw, and Bogue Falaya Rivers in southeastern Louisiana and the Tchoutacabouffa, Biloxi, Wolf, and Jourdan Rivers in southeastern Mississippi.

Ida was responsible for 35 known tornadoes. As a tropical cyclone, the system produced 24 tornadoes, including 2 in Louisiana, 13 in Mississippi, 7 in Alabama, and 2 in Virginia. All of them were rated EF-1 or EF-0 on the enhanced Fujita scale. These tornadoes generally had minor impact, although three people were injured by a tornado in Mobile County, Alabama. The

tornadoes in Mississippi were concentrated in the coastal counties of Harrison, Hancock, and Jackson, and several of them were waterspouts that moved onshore.

Ida directly caused six deaths 4 as a tropical cyclone – four in Louisiana and two in Mississippi. One death in Louisiana was a drowning in storm surge in Lafite in Jefferson Parish, while a second was a drowning when a car was driven into freshwater flooding in New Orleans. The two other deaths in Louisiana were due to high winds that damaged buildings in Ascension and St. James Parishes. The two direct deaths in Mississippi occurred when flooding washed out a bridge in George County, resulting in seven cars running off the road and into the floodwaters.

Tropical Storm Francine—September 12, 2024

Tropical Storm Francine made landfall in southern Louisiana on the evening of September 11th, 2024. The weakening storm produced strong wind damage as it moved across central Mississippi the morning of September 12th, 2024.

5.12.4 Probability of Future Occurrences

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 percent). Given the regional nature of the hazard, all areas in the region are equally exposed to this hazard. However, when the region is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

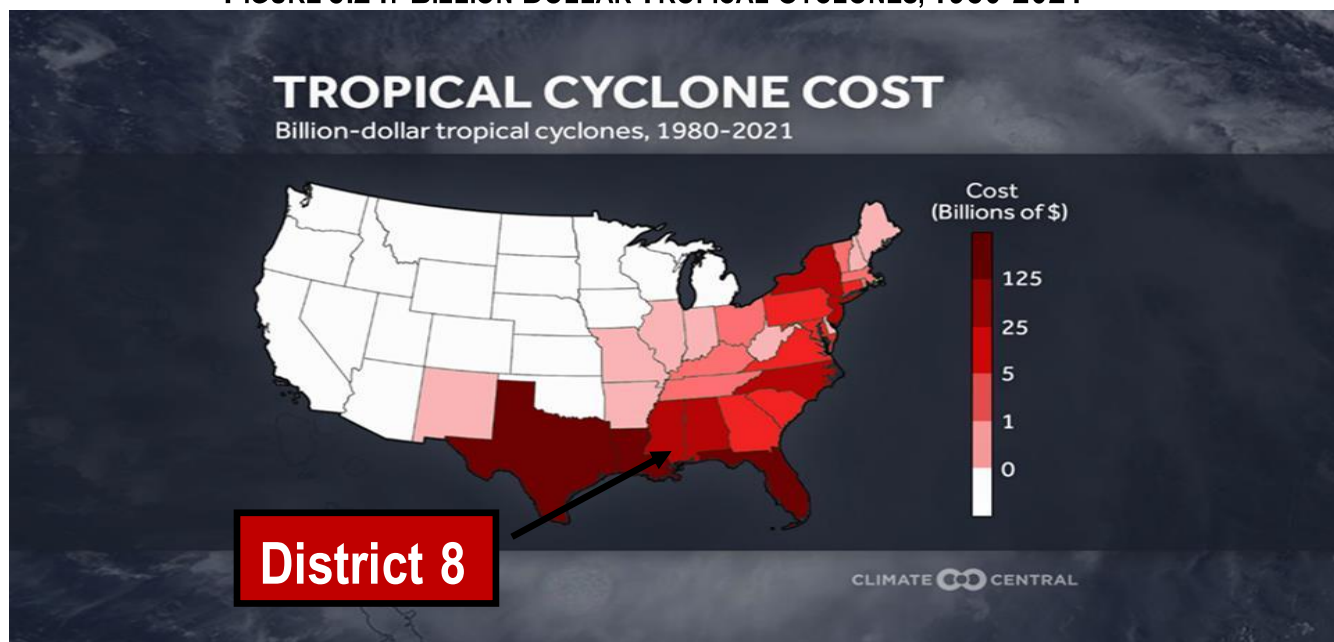
5.12.5 Tropical Cyclones and Climate Change

Warming oceans are fueling stronger tropical cyclones—the most costly and deadly weather disasters in the U.S. About 80% of major hurricanes undergo rapid intensification. In the Atlantic, 170 landfalling tropical cyclones have experienced rapid intensification since 1980. Of the 56 tropical cyclones that have caused at least \$1 billion in damage in the U.S. from 1980-2021, 73% underwent rapid intensification.

Landfalling Tropical Cyclones

Of the 10 most costly weather disasters in the U.S., eight were hurricanes. The top three (Hurricanes Maria, Harvey, and Katrina) resulted in a total of 4,903 lives lost and over \$442 billion in damages. As we know, Katrina caused widespread devastation across Mississippi. See **Figure 5.24**

FIGURE 5.24: BILLION-DOLLAR TROPICAL CYCLONES, 1980-2021



The effects of climate change on hurricanes are complex, but research shows rising temperatures are causing hurricanes to become more intense. Higher tropical cyclone rainfall rates are expected with further warming. And rising sea levels further enhance the risk of flooding from tropical cyclones, sometimes increasing hurricane damages by billions of dollars.

Ocean warming due to human-caused climate change is fueling an increased proportion of intense tropical cyclones and contributing to an increased fraction of storms that undergo rapid intensification. The Changes are likely to change/increase the hurricane tracks, storm strength (wind/rain/tornadoes/surge), and the impacts of tropical cyclones may worsen and cause more damage further inland.

Since 1979, human-caused warming has increased the global likelihood of a tropical cyclone developing into a major hurricane (category 3 or higher) by about 8% per decade. The latest IPCC reports conclude that the proportion of very intense (category 4 and 5) tropical cyclones is projected to increase globally with continued warming. Of the 56 tropical cyclones that have caused at least \$1 billion in damage in the U.S. from 1980-2021, 73% underwent rapid intensification. (Source: Climate Central)

According to FEMA the observed increases in atmospheric and ocean temperatures associated with climate change have the potential to change in severity of tropical cyclones. Research has found that tropical cyclones are getting slower (but intensifying faster) and stronger—both of which can increase rainfall amounts and the possibility of flooding and flash flooding.

5.13 THUNDERSTORM (WIND, HAIL, LIGHTNING)

5.13.1 Background

THUNDERSTORM / HIGH WIND

Thunderstorms can produce a variety of accompanying hazards including wind (discussed here), hail, and lightning. Although thunderstorms generally affect a small area, they are very dangerous may cause substantial property damage.

Three conditions need to occur for a thunderstorm to form. *First*, it needs moisture to form clouds and rain. *Second*, it needs unstable air, such as warm air that can rise rapidly (this often referred to as the “engine” of the storm). *Third*, thunderstorms need lift, which comes in the form of cold or warm fronts, sea breezes, mountains, or the sun’s heat. When these conditions occur simultaneously, air masses of varying temperatures meet, and a thunderstorm is formed. These storm events can occur singularly, in lines, or in clusters. Furthermore, they can move through an area very quickly or linger for several hours.

According to the National Weather Service, more than 100,000 thunderstorms occur each year, though only about 10 percent of these storms are classified as “severe.” A *severe thunderstorm* occurs when the storm produces at least one of these three elements: 1) hail of three-quarters of an inch, 2) a tornado, or 3) winds of at least 58 miles per hour.

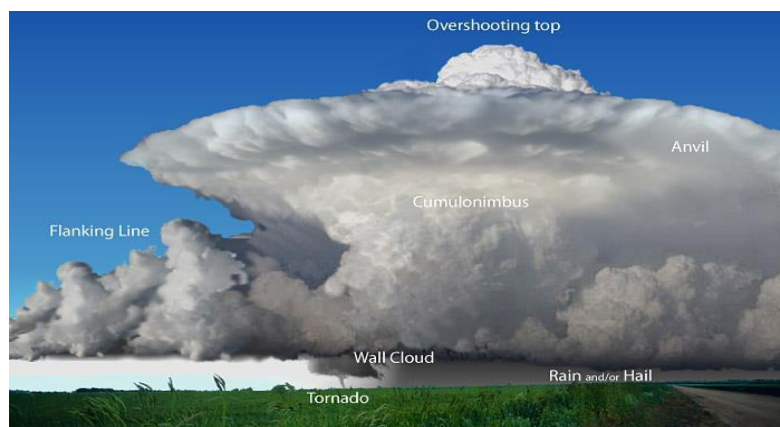
For a thunderstorm to be designated as a “*significant severe*” by the National Weather Service, it must: 1) hail > 2 inches in diameter, 2) an EF-2 or stronger tornado, or 3) wind gusts in excess of 75 mph.

Downbursts are also possible with thunderstorm events. Such events are an excessive burst of wind in excess of 125 miles per hour. They are often confused with tornadoes. **Downbursts** are caused by down drafts from the base of a convective thunderstorm cloud. It occurs when rain-cooled air within the cloud becomes heavier than its surroundings. Thus, air rushes towards the ground in a destructive yet isolated manner. There are *two types of downbursts*. **Downbursts** less than 2.5 miles wide, duration less than 5 minutes, and winds up to 168 miles per hour are called “**microbursts**.” Larger events greater than 2.5 miles at the surface and longer than 5 minutes with winds up to 130 miles per hour are referred to as “**macrobursts**.” **Downbursts** can occur with little to no warning and are very difficult to predict. A **downburst** can either be “**wet**” or “**dry**”. A “**wet downdraft**” can be accompanied by hail and heavy rain, or it can be a “**dry downdraft**” and have no associated precipitation.

Thunderstorm Types: (Source NOAA)

1. **Single-cell Thunderstorm**—are small, brief, weak storms that grow and die within an hour or so. They are typically driven by heating on a summer afternoon. **Single-cell storms** may produce brief heavy rain and lightning. They are often called “*popcorn*” *convection*.
2. **Multi-cell Storm**—is a common, garden-variety thunderstorm in which new updrafts form along the leading edge of rain-cooled air (the gust front). Individual cells usually last 30 to 60 minutes, while the system as a whole may last for many hours. **Multicell storms** may produce hail, strong winds, brief tornadoes, and /or flooding.
3. **Squall line**—is a line of thunderstorms that often forms along a low-pressure system’s cold front **Squall lines** result as the leading edge of a cold, dense air mass acts to wedge and lift warm air vertically. They are comprised of strong to severe thunderstorms, and commonly produce wind damage and flash flooding, and can also spawn embedded or rain-wrapped tornadoes.
4. **Supercell Thunderstorm**—is a long-lived (greater than 1 hour) and highly organized storm feeding off an *updraft* (a rising current of air) that is tilted and rotating. This *rotating updraft* - as large as 10 miles in diameter and up to 50,000 feet tall - can be present as much as 20 to 60 minutes before a tornado forms. Scientists call this rotation a **mesocyclone** when it is detected by Doppler radar. The tornado is a very small extension of this larger rotation. Most large and violent tornadoes come from **supercells**. See **Figure 5.25**.

FIGURE 5.25: FEATURES OF A SUPERCCELL THUNDERSTORM



Source: NOAA

5. **“Bow Echo”**—is a radar signature of a squall line that “bows out” as winds fall behind the line and circulations develop on either end. A strongly **bowed echo** may indicate high winds in the middle of the line, where the storms are moving forward most quickly. Brief tornadoes may occur on the leading edge of a **bow echo**. Often the north side of a bow echo becomes dominant over time, gradually evolving into a comma-shaped storm complex. See **Figure 5.26**.

FIGURE 5.26: IMAGE OF A “BOW ECHO”



Source: NOAA

6. **Mesoscale Convective System (MCS)**—is a collection of thunderstorms that act as a system. An **MCS** can spread across an entire state and last more than 12 hours. On radar one of these monsters might appear as a solid line, a broken line, or a cluster of cells. This all-encompassing term can include any of the following storm types:
- a) **Mesoscale convective complex (MCC)**—A particular type of **MCS**, an **MCC** is a large, circular, long-lived cluster of showers and thunderstorms identified by satellite. It often emerges out of other storm types during the late-night and early-morning hours. **MCCs** can cover an entire state.
 - b) **Mesoscale convective vortex (MCV)**—A low-pressure center within an **MCS** that pulls winds into a circling pattern, or vortex. With a core only 30 to 60 miles wide and 1 to 3 miles deep, an **MCV** is often overlooked in standard weather analyses. But an **MCV** can take on a life of its own, persisting for up to 12 hours after its parent **MCS** has dissipated. This orphaned **MCV** will sometimes then become the seed of the next thunderstorm outbreak. An **MCV** that moves into tropical waters, such as the Gulf of Mexico, can serve as the nucleus for a tropical storm or hurricane.
 - c) **Derecho**—is a widespread, long-lived windstorm that is associated with a band of rapidly moving showers or thunderstorms. Although a **derecho** can produce destruction similar to that of tornadoes, the damage typically is directed in one direction along a relatively straight swath. As a result, the term “straight-line wind damage” sometimes is used to describe derecho damage. By definition, if the wind damage swath extends more than 240 miles (about 400 kilometers) and includes wind gusts of at least 58 mph (93 km/h) or greater along most of its length, then the event may be classified as a derecho.

Table 5.23 shows the SPC severe thunderstorm risk categories.

TABLE 5.23: SPC SEVERE THUNDERSTORM RISK CATEGORIES

Thunderstorms (No label)	1-Marginal (MRGL)	2-Slight (SLGT)	3-Enhanced (ENH)	4-Moderate (MDT)	5-High (High)
No severe thunderstorms expected <i>Lightning/flooding threats do exist with all thunderstorms</i>	Isolated severe thunderstorms possible <i>Limited in duration and/or coverage and/or intensity</i>	Scattered severe thunderstorms possible <i>Short-lived and/or not widespread, isolated intense storms are possible</i>	Numerous severe thunderstorms possible <i>More persistent and/or widespread, a few intense.</i>	Widespread severe storms likely <i>Long-lived, widespread and intense.</i>	Widespread severe storms expected <i>Long lived, very widespread and particularly intense</i>

Source: FEMA

HAIL

Hail is an irregular shaped ball of ice that falls within thunderstorm updrafts. Each **hailstone** begins its life as a rain drop or ice crystal that is erratically recycled within a thunderstorm's updraft. As the **hailstone** is tossed, it collides with small rain drops, which freeze onto the surface of the stone which allows it to grow in layers. Once the **hailstone** is too large to be held up by the updraft, it falls to the ground at speeds approaching 100 mph. **Hailstorms** are a potentially damaging outgrowth of severe thunderstorms. **Hail** typically takes the form of spheres or irregularly shaped masses greater than 0.75 inches in diameter. The size of hailstones is a direct function of the size and severity of the storm. High velocity updraft winds are required to keep hail in suspension in thunderclouds. The strength of the updraft is a function of the intensity of heating at the Earth's surface. Higher temperature gradients relative to elevation above the surface result in increased suspension time and hailstone size. **Table 5.24** shows the TORRO Hailstorm Intensity Scale which is a way of measuring hail severity.

TABLE 5.24: TORRO HAILSTORM INTENSITY SCALE

Scale	Intensity Category	Diameter (mm)	Diameter (inches)	Description	Typical Damage Impacts
H0	Hard Hail	5	0 - 0.2	Pea	No damage
H1	Potentially damaging	5-15	0.2 - 0.6	Mothball	Slight damage to crops and plants
H2	Significant	10-20	0.4 - 0.8	Marble, grape, Nickle	Significant damage to crops and vegetation
H3	Severe	20-30	0.8 – 1.2	Walnut, Quarter	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	25-40	1 – 1.6	Pigeon egg, Ping-pong ball	Widespread glass damage, vehicle bodywork damage
H5	Destructive	30-50	1.2 - 2	Golf ball	The wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40-60	1.6 - 2.4	Egg	Bodywork of grounded aircraft dented; brick walls pitted
H7	Destructive	50-75	2 - 3	Tennis ball	Severe roof damage, risk of serious injuries
H8	Destructive	60-90	1.6 - 3.5	Large Orange, Baseball	Severe damage to aircraft bodywork
H9	Super Hailstorms	75-100	3 - 3.9	Grapefruit	Extensive structural damage. Risk of severe or fatal injuries to persons caught in the open
H10	Super Hailstorms	>100	> 3.9	Melon	Extensive structural damage. Risk of severe or fatal injuries to persons caught in the open

Approximate range (typical maximum size in bold), since other factors (e.g. number and density of hailstones, hail fall speed and surface wind speeds) affect severity.
Source: torro.org.uk/research

LIGHTNING

Lightning is a discharge of electrical energy resulting from the buildup of positive and negative charges within a thunderstorm, creating a “bolt” when the buildup of charges becomes strong enough. This flash of light usually occurs within the clouds or between the clouds and the ground. A **bolt of lightning** can reach temperatures approaching 50,000 degrees Fahrenheit which is 5 times hotter than the sun. **Lightning** rapidly heats the sky as it flashes but the surrounding air cools following the bolt. This rapid heating and cooling of the surrounding air causes the thunder which often accompanies lightning strikes. While most often affiliated with severe thunderstorms, lightning may also strike outside of heavy rain and might occur as far as 10 miles away from any rainfall.

Lightning strikes occur in very small, localized areas. For example, they may strike a building, electrical transformer, or even a person. According to FEMA, lightning injures an average of 300 people and kills 80 people each year in the United States. **Direct lightning strikes** also have the ability to cause significant damage to buildings, critical facilities, and infrastructure largely by igniting a fire. **Lightning** is also responsible for igniting wildfires that can result in widespread damages to property. **Figure 28** shows the lightning risk for the U.S. by state and county.

5.13.2 Location and Spatial Extent

THUNDERSTORM / HIGH WIND

A **thunderstorm event** is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, **thunderstorms** are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. It is assumed that the *MEMA District 8 Region* has uniform exposure to an event and the spatial extent of an impact could be large.

HAILSTORM

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that the *MEMA District 8 Region* is uniformly exposed to severe thunderstorms; therefore, all areas of the region are equally exposed to hail which may be produced by such storms.

LIGHTNING

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of the *MEMA District 8 Region* is uniformly exposed to lightning.

5.13.3 Historical Occurrences

THUNDERSTORM / HIGH WIND

Severe storms resulted in 24 disaster declarations in the *MEMA District 8 Region* between 1971 and 2024. According to National Centers for Environmental Information, there have been 1,205 reported thunderstorm and high wind events since 2000 in the *MEMA District 8 Region*. These events caused over \$24M in damages. There were also reports of three fatalities and sixteen injuries. **Table 5.25** summarizes this information from 2000-2024. Detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event are presented in the jurisdiction-specific annexes.

TABLE 5.25: SUMMARY OF THUNDERSTORM/HIGH WIND OCCURRENCES IN THE MEMA DISTRICT 8 REGION

County	Number of Events	Deaths	Injuries	Crop Damage	Property Damage
<i>Covington County</i>	187	0	0	\$0	\$4,825,100
<i>Forrest County</i>	233	2	2	\$3,000	\$3,731,100
<i>Greene County</i>	55	0	2	\$0	\$597,000
<i>Jefferson Davis County</i>	153	0	0	\$60,000	\$2,888,500
<i>Jones County</i>	274	1	11	\$130,000	\$8,041,510
<i>Marion County</i>	133	0	0	\$130,000	\$2,422,100
<i>Perry County</i>	64	0	0	\$0	\$695,500
<i>Wayne County</i>	69	0	1	\$0	\$523,000
TOTAL:	1,168	3	16	\$573,000	\$23,721,810

Source: NCED/NOAA

HAIL

According to the National Centers for Environmental Information, 514 recorded **hailstorm events** have affected the *MEMA District 8 Region* since 2000. **Table 5.26** is a summary of the hail events in the *MEMA District 8 Region*. Detailed information about each event that occurred in the region is provided in the jurisdiction-specific annexes. In all, hail occurrences resulted in over \$35M in property damages, the majority of which were reported in Jones and Forrest County, although Marion County has the highest property damage total at over 28M. Hail ranged in diameter from 0.75 inches to 4.00 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information.

Furthermore, high losses in Jones and Marion County indicate that neighboring counties may also be subject to additional, unreported losses. Therefore, it is likely that damages are greater than the reported value. Additionally, a single storm event may have affected multiple counties.

TABLE 5.26: SUMMARY OF HAIL OCCURRENCES IN THE MEMA DISTRICT 8 REGION (2000-2024)

County	Number of Events	Deaths	Injuries	Crop Damage	Property Damage	Largest in Magnitude
<i>Covington County</i>	51	0	0	\$0	\$1,426,000	2.75 in.
<i>Forrest County</i>	122	0	0	\$0	\$1,660,000	2.5 in.
<i>Greene County</i>	32	0	0	\$0	\$3,000	2.75 in.
<i>Jefferson Davis County</i>	57	0	0	\$0	\$519,000	2.5 in.
<i>Jones County</i>	112	0	0	\$3,000	\$3,508,000	2.75 in.
<i>Marion County</i>	81	0	0	\$0	\$28,077,000	4.0 in.
<i>Perry County</i>	30	0	0	\$0	\$7,000	2.5 in.
<i>Wayne County</i>	28	0	0	\$0	\$13,000	1.75
Total:	513	0	0	\$3,000	\$35,213,000	--

Source: NCED/NOAA

FIGURE 5:27 PICTURES OF HAIL DAMAGE



LIGHTNING

According to the National Centers for Environmental Information, there have been a total of 63 recorded lightning events in the *MEMA District 8 Region* since 2000. These events resulted in over \$3M in damages, as listed in summary **Table 5.27**. Furthermore, lightning has caused one death and seven injuries in the *MEMA District 8 Region*. Detailed information on historical lightning events can be found in the jurisdiction-specific annexes.

TABLE 5.27: SUMMARY OF LIGHTNING OCCURRENCES IN THE MEMA DISTRICT 8 REGION

County	Number of Events	Deaths/Injuries	Property Damage
<i>Covington County</i>	3	0/0	\$35,000
<i>Forrest County</i>	25	1/2	\$1,231,000
<i>Greene County</i>	2	0/0	\$70,000
<i>Jefferson Davis County</i>	5	0/1	\$351,000
<i>Jones County</i>	21	0/2	\$916,000
<i>Marion County</i>	5	0/0	\$342,000
<i>Perry County</i>	1	0/0	\$60,000
<i>Wayne County</i>	2	0/2	\$50,000
TOTAL:	63	1/7	\$3,055,000

Source: NCED/NOAA

5.13.4 Probability of Future Occurrences

THUNDERSTORM / HIGH WIND

Given the high number of previous events, it is certain that thunderstorm events, including straight-line wind events, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for the entire planning area.

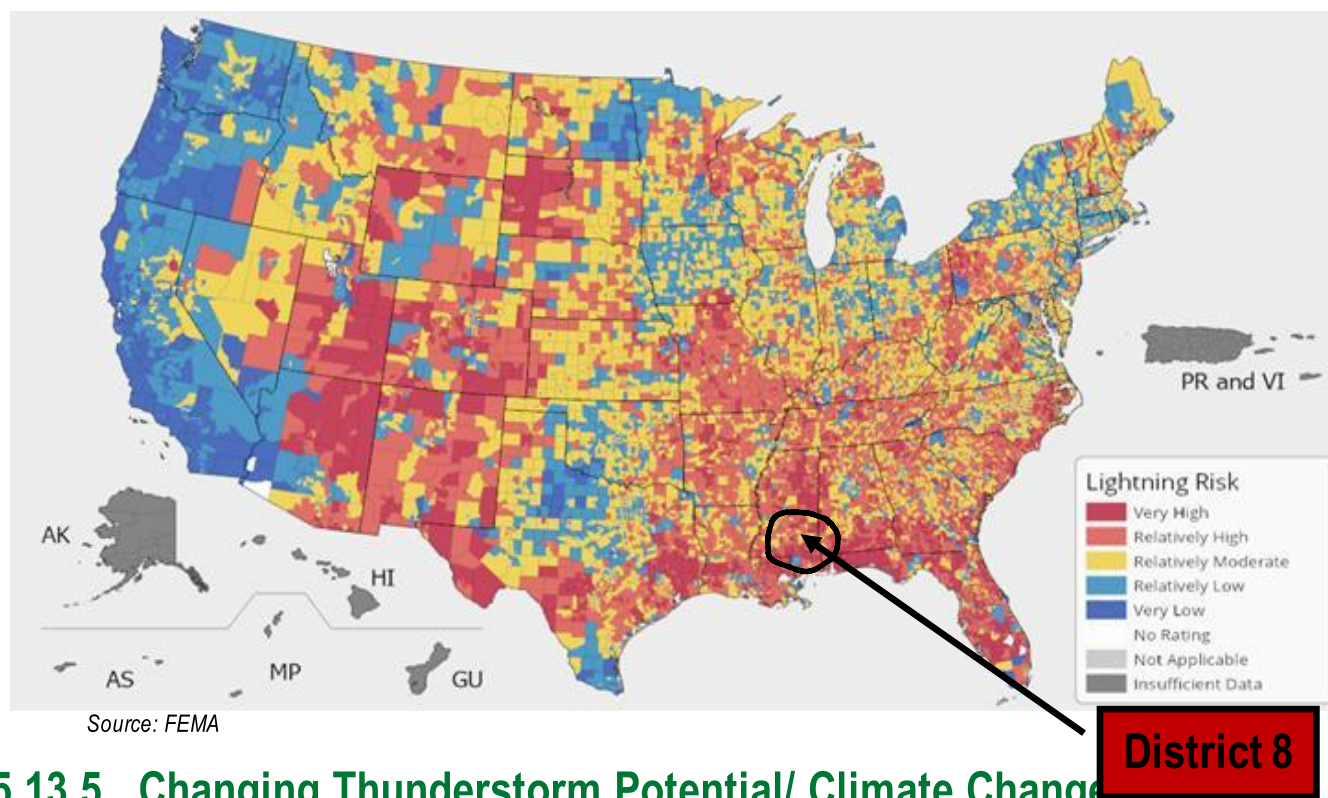
HAILSTORM

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard, it is assumed that the entire *MEMA District 8 Region* has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the region.

LIGHTNING

Although there was not a high number of historical lightning events reported throughout the *MEMA District 8 Region* via NCEI data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though all events will not cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), the *MEMA District 8 Region* is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year. Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the region.

FIGURE 5.28: LIGHTNING RISK IN THE UNITED STATES



5.13.5 Changing Thunderstorm Potential/ Climate Change

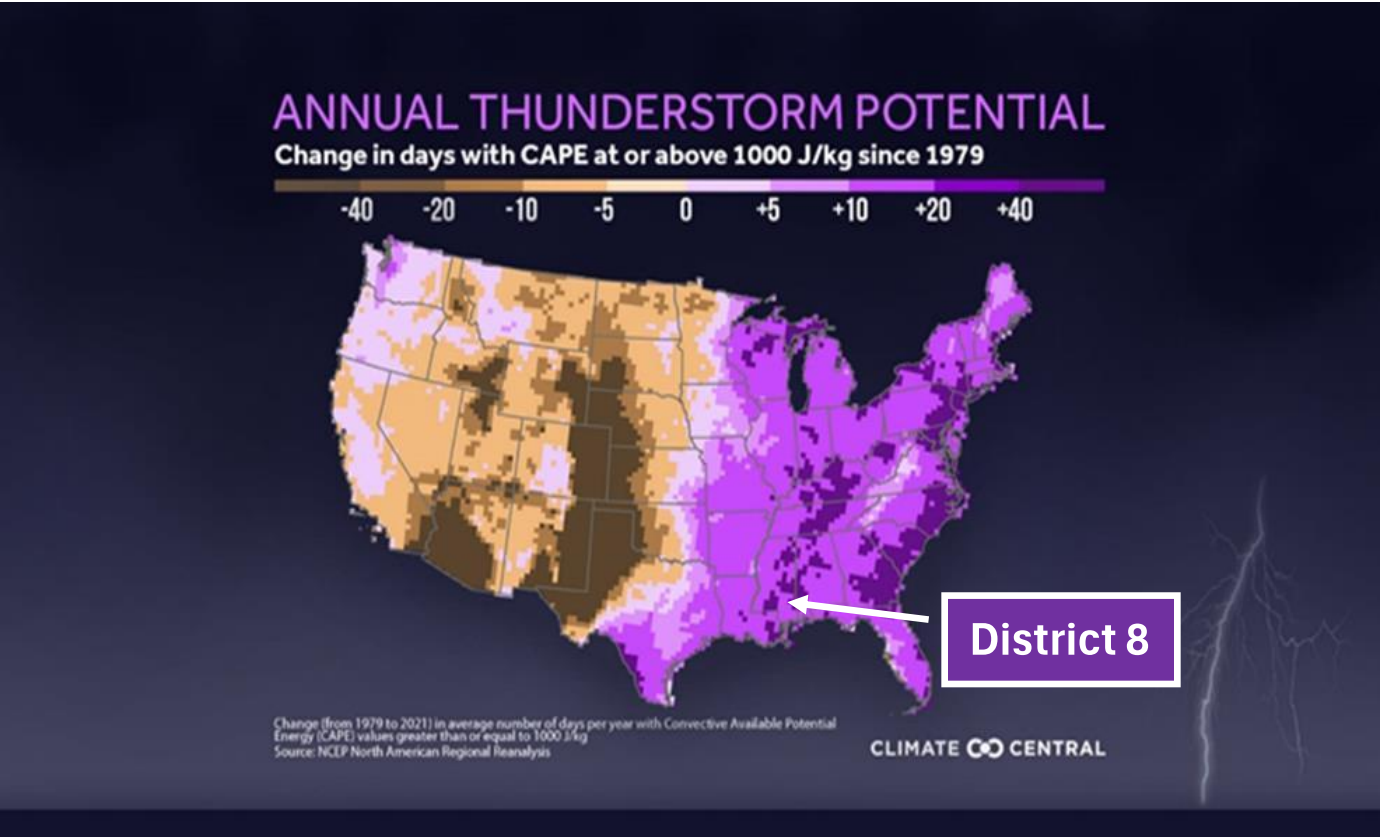
Climate change is supercharging the water cycle, leading to heavier rainfall extremes in many parts of the U.S., which can lead to hazardous flash flooding and landslides. As temperatures continue to rise, more and more water vapor could evaporate into the atmosphere, and water vapor is the fuel for storms. As developments in hazardous areas continue and atmospheric instability increases, critical infrastructure sites will see increased damage. The number of tornadoes in large outbreaks, and the frequency of storm-producing weather conditions, is trending upwards.

Severe weather is considered to be an intense variation of a regionally common weather event, such as a heavy rainfall event or damaging winds. Severe weather—thunderstorms that produce tornadoes, damaging wind, and/or hail—account for nearly half of all billion-dollar weather disasters in the U.S. since 1980.

Extreme weather identifies the trend of more severe weather events both in frequency and intensity, such as torrential rain (excessive rain periods where over one month of rain can fall during a single storm) or record-breaking peak gusts with widespread wind damage. Extreme weather is the most intense climate element observed during a given period, typically longer lasting or more damaging than the historical ‘worst case’ events. Extreme weather threats are unusually severe weather can be amplified by climate change which can cause devastating impacts on communities, infrastructure, agricultural, and natural ecosystems. Since 1980, severe storms have caused over \$383 billion in total damages.

There has been Increases in hourly rainfall intensity; the risks posed by short bursts of extreme rainfall—for flooding, health, and the economy—are relevant for both wet and dry locations. An increase in the Simple Hourly Rainfall Intensity Index indicates an increase in hourly rainfall intensity—in other words, more rain falling per hour; 90% of the 150 stations analyzed had an increase in hourly rainfall intensity since 1970, the average change in the Simple Hourly Rainfall Intensity Index from 1970 to 2021 was +13%, and 63% (95/150) of stations had an increase in hourly rainfall intensity of +10% or more. But even as a warming climate might decrease the overall number of storms that form, it seems to be increasing the number of intense storms. **Figure 5.29** shows Annual Thunderstorm Potential. Source: *Climate Central*.

FIGURE 5.29: ANNUAL THUNDERSTORM POTENTIAL



Source: Climate Central

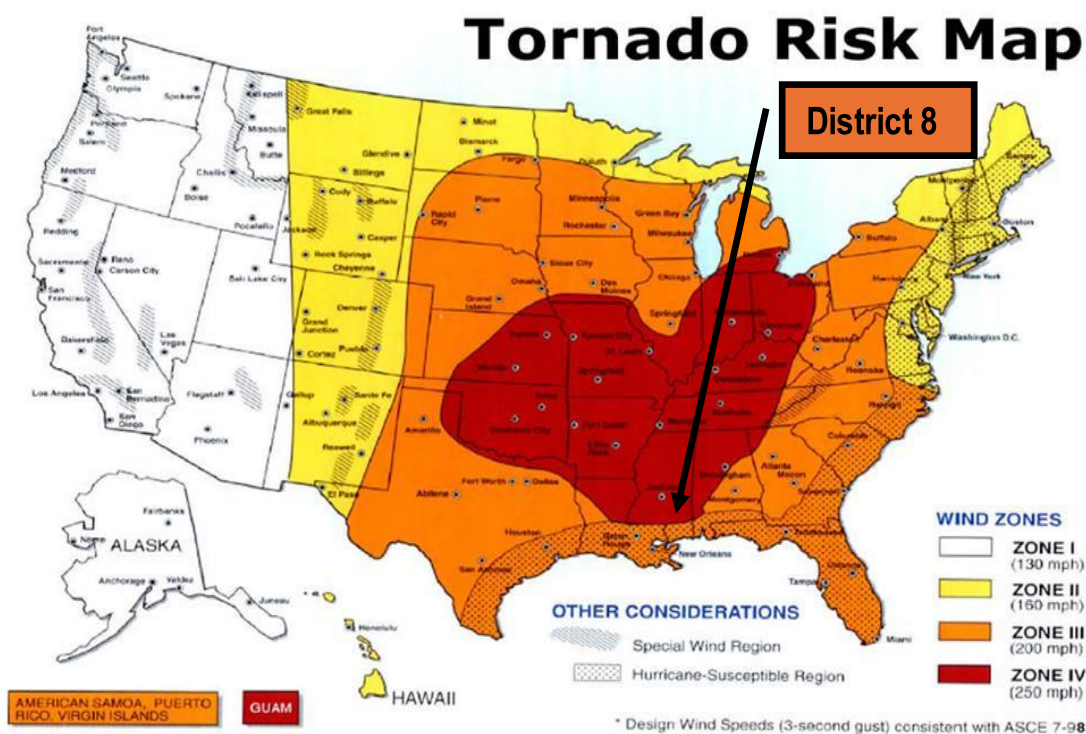
5.14 TORNADO

5.14.1 Background

A **tornado** is a violent windstorm characterized by a twisting, funnel-shaped cloud extending to the ground. A **Tornado** is a narrow, violently rotating column of air that extends from the base of a thunderstorm to the ground and is visible only if it forms a condensation funnel made up of water droplets, dust, and debris. **Tornadoes** can be among the most violent phenomena of all atmospheric storms we experience. **Tornadoes** are most often generated by thunderstorm activity (but sometimes result from hurricanes and other tropical storms) when cool, dry air intersects and overrides a layer of warm, moist air forcing the warm air to rise rapidly. The damage caused by a **tornado** is a result of the high wind velocity and wind-blown debris, also accompanied by lightning or large hail. According to the National Weather Service, tornado wind speeds normally range from 40 miles per hour to more than 300 miles per hour. The most **violent tornadoes** have rotating winds of 250 miles per hour or more and are capable of causing extreme destruction and turning normally harmless objects into deadly missiles. **Tornadoes** are more likely to occur during the months of March through May and are most likely to form in the late afternoon and early evening. Most **tornadoes** are a few dozen yards wide and touch down briefly, but even small short-lived tornadoes can inflict tremendous damage. Highly destructive tornadoes may carve out a path over a mile wide and several miles long.

About 1,200 **tornadoes** hit the U.S. yearly resulting in an average of 80 deaths and 1,500 injuries. Since official **tornado records** only date back to 1950, we do not know the actual average number of **tornadoes** that occur each year. Plus, **tornado** spotting and reporting methods have changed a lot over the last several decades, which means that we are observing more tornadoes that actually happen. **Tornado Alley** is a nickname invented by the media to refer to a broad area of relatively high tornado occurrence in the central United States. Various “**Tornado Alley**” maps look different because tornado occurrence can be measured many ways: by all tornadoes, tornado county-segments, strong and violent tornadoes only, and databases with different time periods. **Tornadoes** can occur and have been reported in all fifty states! According to the NOAA Storm Prediction Center (SPC), the highest concentration of tornadoes in the United States has been in Oklahoma, Texas, Kansas, and Florida respectively. Although the Great Plains region of the Central United States does favor the development of the largest and most dangerous tornadoes (earning the designation of “tornado alley”), Florida experiences the greatest number of tornadoes per square mile of all U.S. states (SPC, 2002). Figure 5.30 shows tornado risk in the United States based on the number of recorded tornadoes.

FIGURE 5.30: TORNADO ACTIVITY IN THE UNITED STATES



Source: Disasterphilanthropy.org

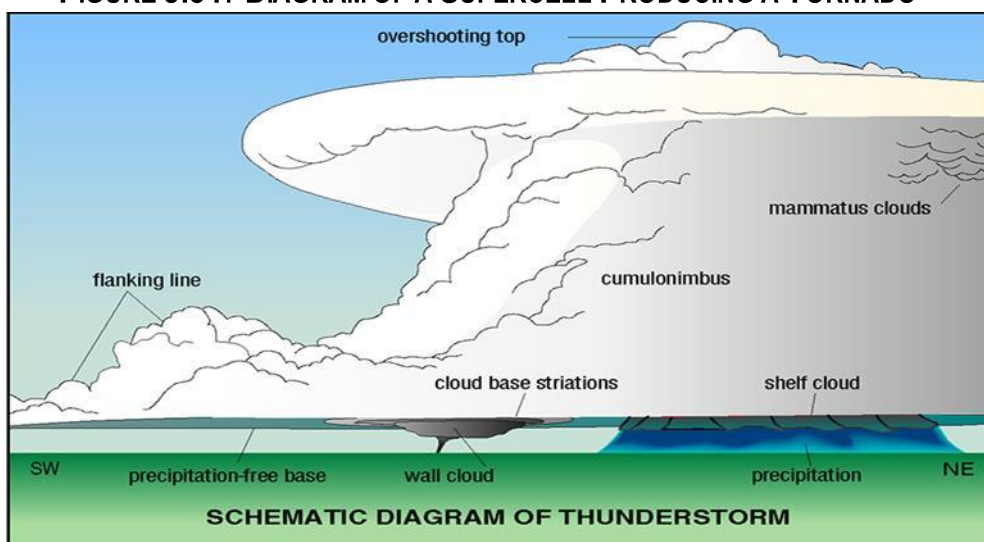
In the National Risk Index, a Tornado Risk Index score and rating represent a community's relative risk for Tornadoes when compared to the rest of the United States. A Tornado Expected Annual Loss score and rating represent a community's relative level of expected building and population loss each year due to Tornadoes when compared to the rest of the United States.

A **Tornado WATCH** is issued by the **NOAA Storm Prediction Center** meteorologists who watch the weather 24/7 across the entire U.S. for weather conditions that are favorable for tornadoes and severe weather. A watch can cover parts of a state or several states. Watch and prepare for severe weather and stay tuned to NOAA Weather Radio to know when warnings are issued.

A **Tornado WARNING** is issued by your local **NOAA National Weather Service Forecast Office** meteorologists who watch the weather 24/7 over a designated area. This means a tornado has been reported by spotters or indicated by radar and there is a serious threat to life and property to those in the path of the tornado. A **tornado warning indicates that you should ACT NOW** to find safe shelter! A warning can cover parts of counties or several counties in the path of danger.

The most destructive **tornadoes** occur from supercells, which are rotating thunderstorms with a well-defined radar circulation called a mesocyclone. (Supercells can also produce damaging hail, severe non-tornadic winds, frequent lightning, and flash floods.) Tornado formation is believed to be dictated mainly by things which happen on the storm scale, in and around the mesocyclone (See **Figure 5.31**)

FIGURE 5.31: DIAGRAM OF A SUPERCCELL PRODUCING A TORNADO



Source: NOAA

HOW TO IDENTIFY A TORNADO

Inflow bands are ragged bands of low cumulus clouds extending from the main storm tower usually to the southeast or south. The presence of inflow bands suggests that the storm is gathering low-level air from several miles away. If the inflow bands have a spiraling nature to them, it suggests the presence of rotation.

The **beaver's tail** is a smooth, flat cloud band extending from the eastern edge of the rain-free base to the east or northeast. It usually skirts around the southern edge of the precipitation area. It also suggests the presence of rotation.

A **wall cloud** is an isolated cloud lowering attached to the rain-free base of the thunderstorm. The wall cloud is usually to the rear of the visible precipitation area.

A **wall cloud** that may produce a tornado can exist for 10–20 minutes before a tornado appears, but not always. A wall cloud may also persistently rotate (often visibly), have strong surface winds flowing into it, and may have rapid vertical motion indicated by small cloud elements quickly rising into the rain-free base.

As the storm intensifies, the updraft draws in low-level air from several miles around. Some low-level air is pulled into the updraft from the rain area. This rain-cooled air is very humid; the moisture in the rain-cooled air quickly condenses below the **rain-free base** to form the **wall cloud**.

The **rear flank downdraft (RFD)** is a downward rush of air on the back side of the storm that descends along with the tornado. The **RFD** looks like a “clear slot” or “bright slot” just to the rear (southwest) of the wall cloud. It can also look like curtains of rain wrapping around the cloud base circulation. The **RFD** causes gusty surface winds that occasionally have embedded downbursts. The rear flank downdraft is the motion in the storm that causes the hook echo feature on radar.

A **condensation funnel** is made up of water droplets and extends downward from the base of the thunderstorm. If it is in contact with the ground, it is a tornado; otherwise, it is a funnel cloud. Dust and debris beneath the condensation funnel confirm a tornado's presence (see **Figure 5.31**).

The destruction caused by tornadoes ranges from light to inconceivable depending on the intensity, size, and duration of the storm. Typically, tornadoes cause the greatest damage to structures of light construction, including residential dwellings (particularly mobile homes). Tornadoic magnitude is reported according to the Fujita and Enhanced Fujita Scales. Tornado magnitudes prior to 2005 were determined using the traditional version of the Fujita Scale (**Table 5.28**). Tornado magnitudes that were determined in 2005 and later were determined using the Enhanced Fujita Scale (**Table 5.29**).

TABLE 5.28: THE FUJITA SCALE (EFFECTIVE PRIOR TO 2005)

F-SCALE NUMBER	INTENSITY	WIND SPEED (MPH)	TPYE OF DAMAGE DONE
F0	Gale Tornado	40—72	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards.
F1	Moderate Tornado	73—112	The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.
F2	Significant Tornado	113—157	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
F3	Severe Tornado	158—206	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
F4	Devastating Tornado	207—260	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown, and large missiles generated.
F5	Incredible Tornado	261—318	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel re-enforced concrete structures badly damaged.
F6	Inconceivable Tornado	319—379	These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the mess produced by F4 and F5 wind that would surround the F6 winds. Missiles, such as cars and refrigerators would do serious secondary damage that could not be directly identified as F6 damage. If this level is ever achieved, evidence for it might only be found in some manner of ground swirl pattern, for it may never be identifiable through engineering studies.

TABLE 5.29: THE ENHANCED FUJITA SCALE (EFFECTIVE 2005 AND LATER)

EF-SCALE NUMBER	INTENSITY PHASE	3 SECOND GUST (MPH)	TYPE OF DAMAGE DONE
EF0	Gale	64—85	Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards.
EF1	Moderate	86—110	The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.
EF2	Significant	111—135	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
EF3	Severe	136—165	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
EF4	Devastating	166—200	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown, and large missiles generated.
EF5	Incredible	Over 200	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel re-enforced concrete structures badly damaged.

Source: National Weather Service

TYPES OF TORNADOS

Nearly 20% of all tornadoes are associated with lines of strong thunderstorms called “**quasi-linear convective systems**” (QLCS). **QLCS tornadoes** frequently occur during the late night and early morning hours. These tornadoes, however, tend to be weaker and shorter-lived on average than those associated with supercell thunderstorms. NSSL researchers are looking for ways to detect **QLCS tornadoes** more effectively.

Another type of *non-supercell tornado* is a **landspout**. A **landspout** is a tornado with a narrow, rope-like condensation funnel that forms while the thunderstorm cloud is still growing and there is no rotating updraft - the spinning motion originates near the ground.

Waterspouts are similar to landspouts; except they occur over water. Damage from these types of tornadoes tends to be EF2 or less.

5.14.2 Location and Spatial Extent

Tornadoes occur throughout the state of Mississippi, and thus the *MEMA District 8 Region*. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that the *MEMA District 8 Region* is uniformly exposed to this hazard. See **Figure 5.32**.

5.14.3 Historical Occurrences

Tornadoes resulted in 19 disaster declarations in the *MEMA District 8 Region* between 1973 and 2024. According to the National Centers for Environmental Information, there have been a total of 216 recorded tornado events in the *MEMA District 8 Region* since 2000 (**Table 5.30**), resulting in almost \$205.4M in property and crop damages. In addition, 19 fatalities and 358 injuries were reported. The magnitude of these tornadoes ranges from F0 to F4 in intensity, although an F5 event is possible. Detailed information on historical tornado events can be found in the jurisdiction-specific annexes.

TABLE 5.30: SUMMARY OF TORNADO OCCURRENCES IN THE MEMA DISTRICT 8 REGION

Location	Total Number of Events	Deaths	Injuries	Property Damage	Crop Damage
<i>Covington County</i>	33	0	17	\$38,540,000	\$4,800,000
<i>Forrest County</i>	27	4	134	\$43,711,500	\$549,500
<i>Greene County</i>	17	1	26	\$12,640,000	\$0
<i>Jefferson Davis County</i>	30	4	6	\$27,658,000	\$5,000,000
<i>Jones County</i>	46	6	119	\$35,961,000	\$4,450,000
<i>Marion County</i>	32	4	55	\$30,034,000	\$25,000
<i>Perry County</i>	12	0	1	\$218,000	\$0
<i>Wayne County</i>	19	0	0	\$1,705,000	\$0
TOTAL:	216	19	358	\$190,467,500	\$14,839,500

Source: NCED/NOAA

There have been several significant tornado events in the *MEMA District 8 Region*. The text below describes one of the major events and associated impacts on the region.

Jones County — On February 28, 1987, a 1.25 mile-wide F4 tornado in Glade (unincorporated Jones County) was recorded as the second widest tornado on record in Mississippi. This tornado resulted in 6 deaths, 250 injuries, and \$55,563,194 in damages.

Marion County- On December 23, 2014, a tornado first touched down just east of Pearl River just south of Columbia. It quickly became strong and moved northeast impacting the southeast side of Columbia. The tornado remained on the ground through Marion County before lifting as it approached the Lamar County line. Numerous business, homes, mobile homes, a Nation Guard building, and power poles / lines were heavily damaged or destroyed. There were three deaths as a direct result of the tornado.

Greene County- On April 15, 2011, the National Weather Service aerial survey revealed a continuous long track tornado from just west of Leakesville, Mississippi to Deer Park, Alabama. The tornado touched down west of Leakesville south of Highway 57. It crossed the highway, strengthened to EF-3 intensity, and then turned east toward the city of Leakesville paralleling Highway 57. The tornado damaged 98 homes: 47 with minor damage, 28 with major damage, and 23 homes completely destroyed. 14 businesses were completely destroyed. One fatality occurred in a destroyed mobile home. In Mississippi, the tornado did an estimated 11.1 million dollars' worth of property damage to homes and businesses. The tornado continued east northeast into extreme southwest Washington County, Alabama.

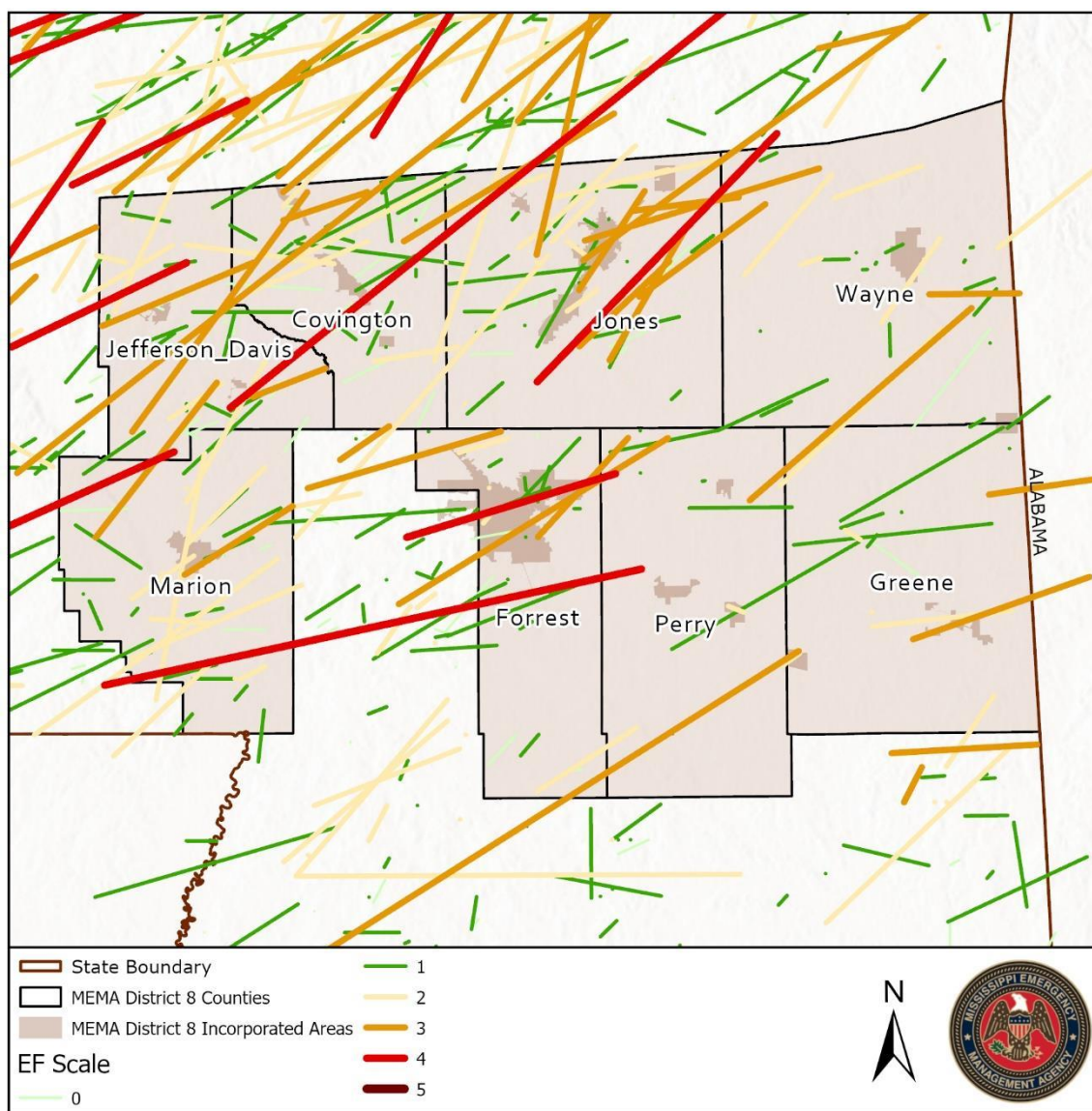
Forrest County- On January 21, 2017, an early morning event impacted areas south of I-20 in Mississippi. Most notably, an EF-3 tornado tracked through Lamar and Forrest counties, killing four people in Hattiesburg and injuring over 50 others. In addition, damaging winds, large hail, and flash flooding occurred in other areas across south Mississippi. The evening event impacted a larger portion of the ArkLaMiss and brought wind damage as well as large hail and a strong tornado.

Covington, Jones, & Jefferson Davis County- On April 12, 2020, an outbreak of severe weather occurred on Easter Sunday, 2020. This was a multifaceted event with a few different waves of activity, each of which brought their own

unique hazardous weather to the residents of the region. This outbreak had a total of 20 tornadoes across the NWS Jackson service area. Of these, two tornadoes were long tracked and in excess of 60 miles. Additionally, the most intense tornado was historically significant as it was the widest tornado in Mississippi history at 2.25 miles and ranks as the third widest nationally. Unfortunately, fatalities occurred across the region, most of which came from the two long track tornadoes. Total fatalities were 14, which were across several counties and almost 100 people were injured. Of the 20 tornadoes, two were rated as EF4, one was an EF3, four were EF2, ten were EF1 and there were three EF0.

In Covington County an EF3 and EF4 tornadoes caused 6 injuries and almost \$40M in damages. In Jones county the EF4 tornadoes caused 3 fatalities and 80 injuries, and it caused almost 15M in damages. In Jefferson Davis an EF4 tornado caused \$25M in damages, 4 deaths, and 4 injuries. More detailed information is located in the county annexes.

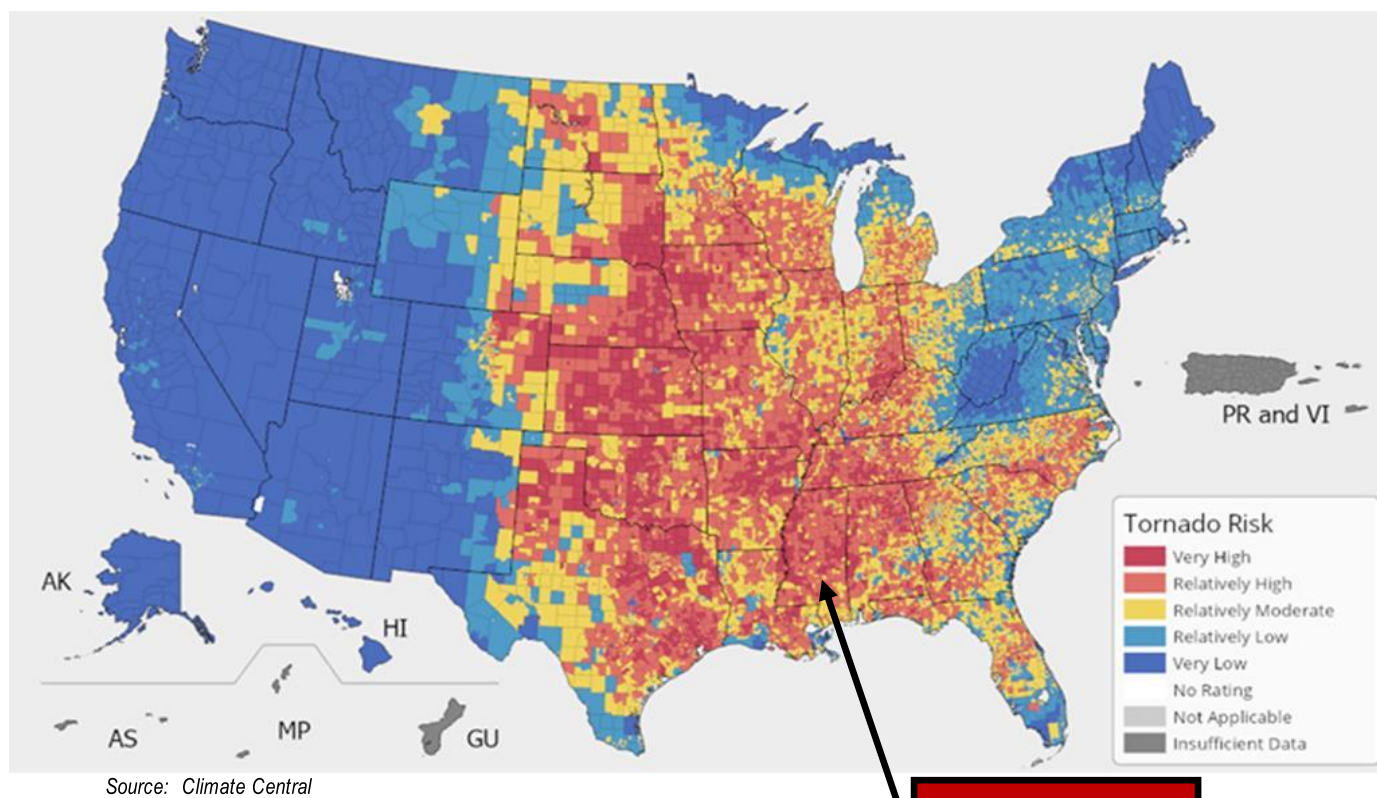
FIGURE 5.32: TORNADO HISTORY MEMA DISTRICT 8 REGION



5.14.4 Probability of Future Occurrences

According to historical information, tornado events pose a significant threat to the *MEMA District 8 Region*. The probability of future tornado occurrences affecting *MEMA District 8 Region* is likely (10 – 100 percent annual probability). See **Figure 5.33**.

FIGURE 5.33: TORNADO RISK MAP



5.14.5 Tornadoes and Climate Change

District 8

Tornadoes: Changes in severe weather, such as tornadoes and thunderstorms, due to climate change is difficult to assess, but a recent peer-reviewed paper presents evidence that there is a shift in the historic record, as the number of tornado events in southeastern states have increased while those in Tornado Alley have decreased. Global temperatures rose about 1.8°F (1°C) from 1901 to 2020. **Tornadoes** also need spin. It's unclear how the wind shear that generates tornado spin responds to rising temperatures. Still, the number of **tornadoes** in large outbreaks, and the frequency of storm-producing weather conditions, is trending upwards. Source: Climate Central.

5.15 HAZARDOUS MATERIALS INCIDENTS

5.15.1 Background

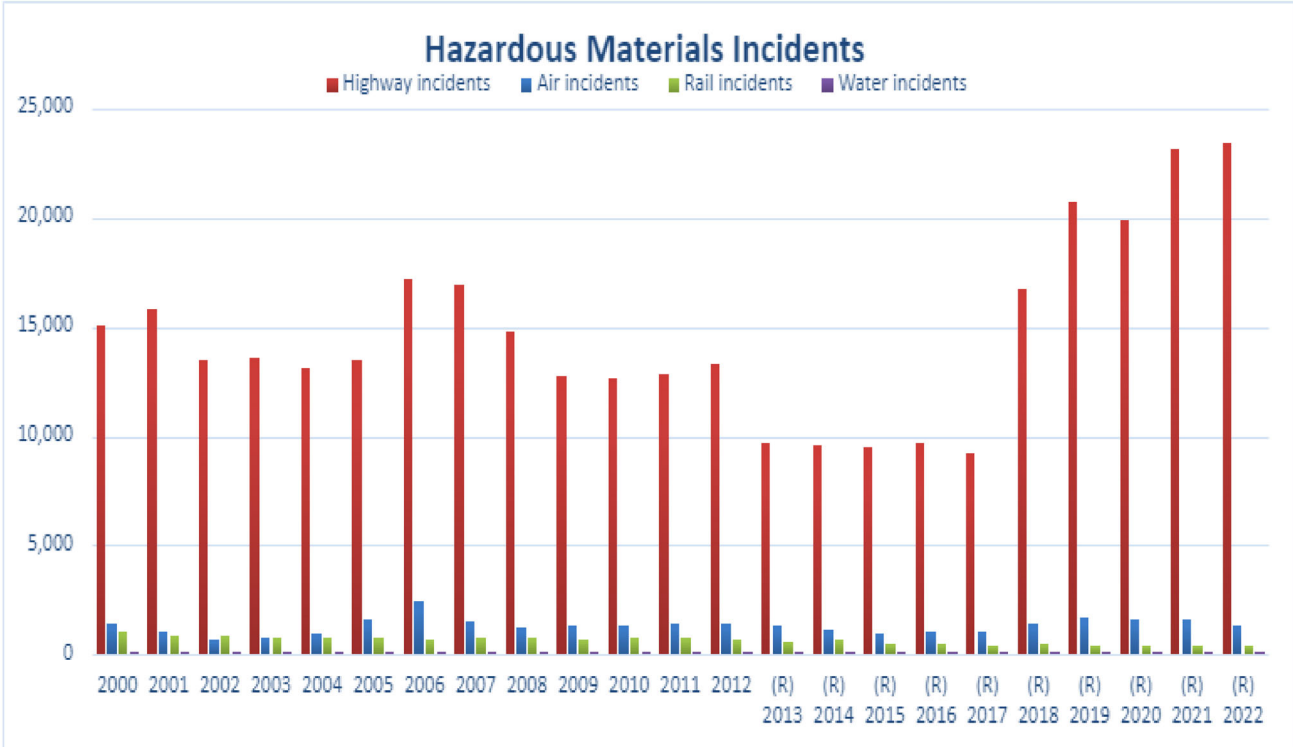
HAZARDOUS MATERIALS

Hazardous materials can be found in many forms and quantities that can potentially cause death; serious injury; long-lasting health effects; and damage to buildings, homes, and other property in varying degrees. Such materials are routinely used and stored in many homes and businesses and are also shipped daily on the nation’s highways, railroads, waterways, and pipelines. This subsection on the hazardous material hazard is intended to provide a general overview of the hazard, and the threshold for identifying fixed and mobile sources of hazardous materials is limited to general information on rail, highway, and fixed HAZMAT sites under the Toxic Release Inventory determined to be of greatest significance as appropriate for the purposes of this plan.

Hazardous material (HAZMAT) incidents can apply to fixed facilities as well as mobile, transportation-related accidents in the air, by rail, on the nation’s highways, and on the water. Approximately 25,000 HAZMAT events occur each year, 23,405 of which are highway incidents, 367 are railroad incidents, and 1,381 are due to other causes. (Source: Bureau of Transportation Statistics). See Figure 5.34. In essence, **HAZMAT incidents** consist of solid, liquid, and/or gaseous contaminants that are released from fixed or mobile containers, whether by accident or by design as with an intentional terrorist attack. A **HAZMAT incident** can last hours to days, while some chemicals can be corrosive or otherwise damaging over longer periods of time. In addition to the primary release, explosions and/or fires can result from a release, and contaminants can be extended beyond the initial area by persons, vehicles, water, wind, and possibly wildlife as well.

Hazardous material incidents can include the spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of a hazardous material, but exclude: (1) any release which results in exposure to poisons solely within the workplace with respect to claims which such persons may assert against the employer of such persons; (2) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel or pipeline pumping station engine; (3) release of source, byproduct, or special nuclear material from a nuclear incident; and (4) the normal application of fertilizer. Table 5.31 show the hazard material incidents per year.

FIGURE 5.34: HAZARDOUS MATERIALS INCIDENTS IN THE U.S.



Source: Bureau of Transportation

TABLE 5.31: INCIDENTS BY TRANSPORTATION PHASE

Transportation Phase			Non-	
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	Incidents	Hospitalized	Hospitalized	Fatalities	Damages
IN TRANSIT	8,414	14	44	11	\$37,082,298
IN TRANSIT STORAGE	776	0	7	0	\$2,085,737
LOADING	4,135	2	0	0	\$391,415
UNLOADING	10,912	3	11	0	\$2,948,777

Source: U.S. Department of Transportation

PIPELINES

Pipelines in the United States are used to transport and distribute a number of products from their extraction point to sites where those materials are utilized throughout the country. Pipelines are most commonly used to transport energy sources such as natural gas and petroleum products but are also often used in the transportation of other hazardous liquids. Transportation of these products via pipeline is abundant in the United States due to the cost-effectiveness of the process which allows quick movement with relatively minimal cost.

Generally, pipelines are safe and effective, transporting materials where they are needed without incident. However, many pipelines in the United States were installed over 60 years ago and were made with materials such as cast and wrought iron or bare steel which degrade over time. This presents a definitive danger to people and property as a leak or spill of hazardous products from a degraded pipeline could prove disastrous, causing costly damage to property and injury or death.

As a result, there has been a recent movement to replace many of these older pipelines with newer materials such as plastics that can reduce the risk of a pipeline failure and a hazard incident. In 2011, the Pipeline Safety, Regulatory Certainty, and Job Creation Act was passed and called for the US Department of Transportation to conduct a state-by-state survey of pipelines and accelerate repairs of aging infrastructure.

In Mississippi, the regulatory authority for pipelines is shared by the US Office of Pipeline Safety (OPS) and the Mississippi Public Service Commission (MPSC). In 2011, the MPSC corrected 273 natural gas pipeline violations and found no hazardous liquid violations.

METH LABS

Methamphetamine, or meth, is a highly addictive drug that is affecting a rapidly growing sector of the US population. Many sources identify meth as the fastest growing drug epidemic in the country and it is dangerous not only to those who use it, but to a large number of people who are impacted incidentally by the production process.

In terms of Emergency Management, one of the primary dangers of meth labs is that the process of producing meth is a chemical one that requires super heating products that can cause explosions if not monitored and maintained properly. This is especially concerning since, as the National Institute on Drug Abuse reports, the relative simplicity of the process results in the product being manufactured by people who are non-skilled in chemistry or advanced science, increasing the chances of production errors and explosive fires.

One of the most dangerous aspects of methamphetamine production is that, because the product is illegal, most production operations are clandestine and are purposefully difficult for authorities to identify. This presents a challenge because unlike other hazardous materials, there is no way to regulate or track meth lab location or size. Often, a meth lab is not identified until an incident has already taken place, causing an increased danger to responders and citizens alike.

Furthermore, an increased danger results from the fact that, unlike a typical structural fire, the chemicals involved in meth production can create explosions and the release of toxic chemical gases which present additional risk of harm to anyone in the vicinity. Exposure to these chemicals can cause anything from eye/skin irritation to long term respiratory diseases.

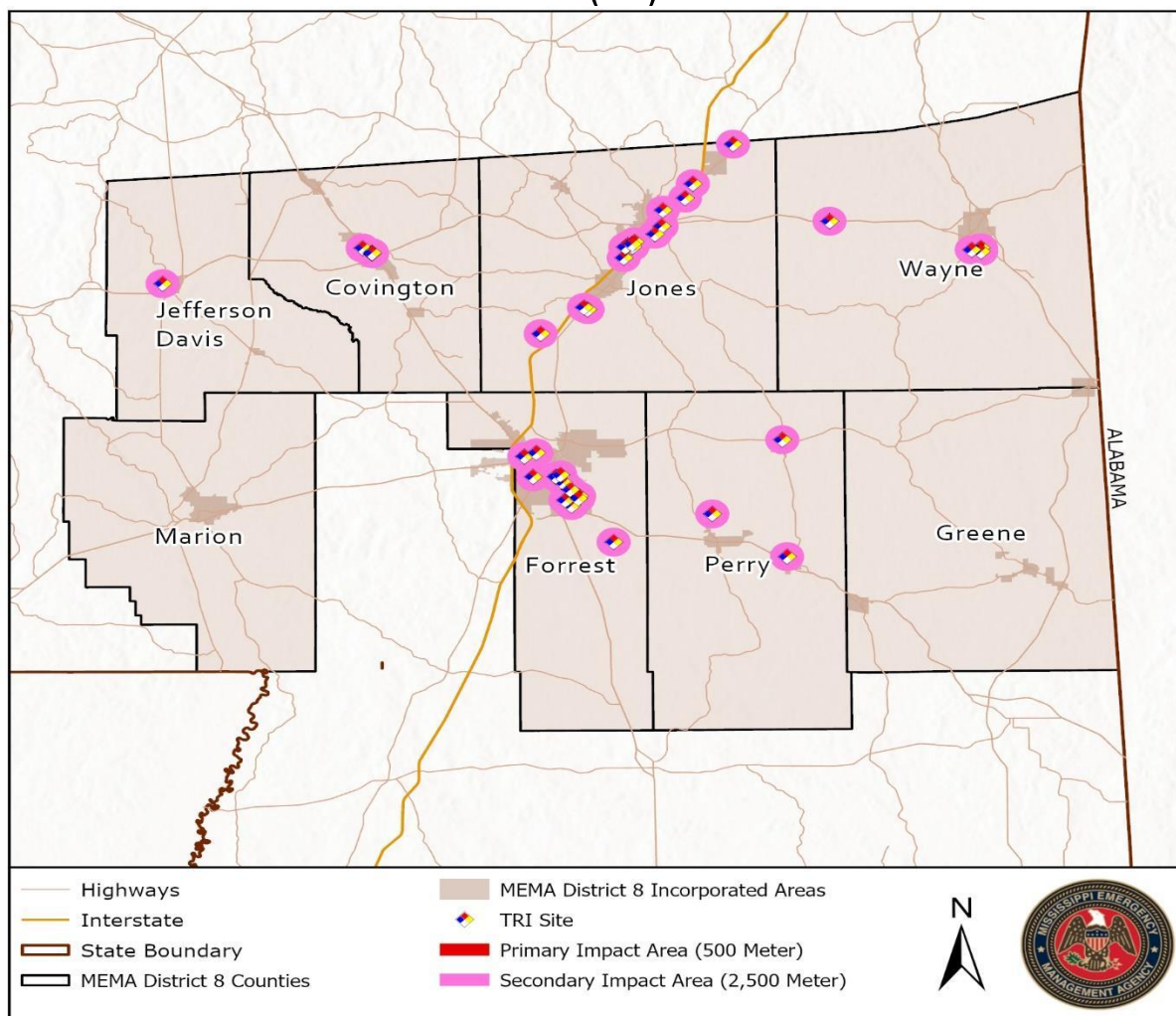
Recently there has been an increased emphasis on training first responders to recognize the signs of meth labs and act accordingly. However, the potential consequences of a meth lab incident combined with the challenge of identifying these sites presents a real risk to communities and is a hazard that local emergency managers should recognize.

5.15.2 Location and Spatial Extent

HAZARDOUS MATERIALS

As a result of the 1986 Emergency Planning and Community Right to Know Act (EPCRA), the Environmental Protection Agency provides public information on hazardous materials. One facet of this program is to collect information from industrial facilities on the releases and transfers of certain toxic agents. This information is then reported in the Toxic Release Inventory (TRI). TRI sites indicate where such activity is occurring. The *MEMA District 8 Region* has numerous TRI sites. These sites are shown in **Figure 5.34**.

FIGURE 5.34: TOXIC RELEASE INVENTORY (TRI) SITES IN THE MEMA DISTRICT 8 REGION

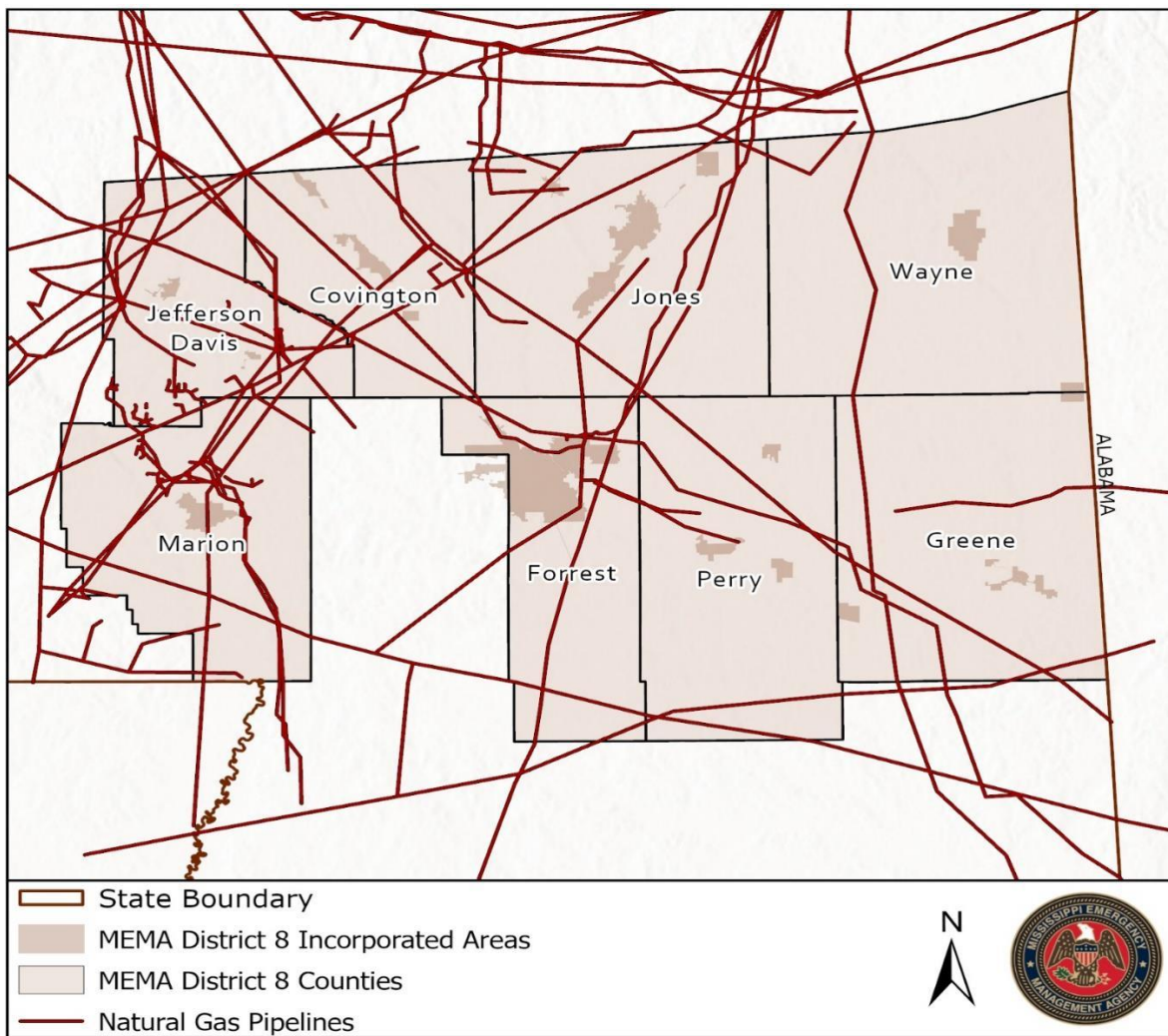


In addition to “fixed” hazardous materials locations, hazardous materials may also impact the region via roadways and rail. Many roads in the region are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

PIPELINES

Pipelines exist throughout the state of Mississippi and throughout the *MEMA District 8 Region*. Across the state, there are over 3,400 miles of hazardous liquid line, 10,600 miles of gas transmission lines, and 15,700 miles of gas distribution lines. In the *MEMA District 8 Region*, there are 1,248 miles of gas lines and 822 miles of hazardous liquid lines. For more specific description of the location of pipelines in the *MEMA District 8* region, please see the maps located in the respective county annexes of this plan.

FIGURE 5.34: PIPELINES IN THE MEMA DISTRICT 8 REGION



METH LABS

As mentioned above, one of the greatest concerns about meth labs is that they are clandestine in nature. Additionally, once a meth lab has been identified, police authorities generally attempt to eliminate the site as quickly as possible. Therefore, it is nearly impossible to identify specific locations for meth labs and instead, the entire planning area is considered to be at risk to this hazard.

5.15.3 Historical Occurrences

HAZARDOUS MATERIALS

The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) lists historical occurrences throughout the nation. A “**serious incident**” is a hazardous materials incident that involves:

- a fatality or major injury caused by the release of a hazardous material,
- the evacuation of 25 or more persons as a result of release of a hazardous material or exposure to fire,
- a release or exposure to fire which results in the closure of a major transportation artery,
- the alteration of an aircraft flight plan or operation,
- the release of radioactive materials from Type B packaging,
- the release of over 11.9 galls or 88.2 pounds of a severe marine pollutant, or
- the release of a bulk quantity (over 199 gallons or 882 pounds) of a hazardous material.

However, prior to 2002, a hazardous material “serious incident” was defined as follows:

- a fatality or major injury due to a hazardous material,
- closure of a major transportation artery or facility or evacuation of six or more person due to the presence of hazardous material, or
- a vehicle accident or derailment resulting in the release of a hazardous material.

Table 5.32 summarizes the HAZAMAT incidents reported in the *MEMA District 8 Region*. Detailed information on these events is presented in the jurisdiction-specific annexes.

TABLE 5.32: SUMMARY OF HAZMAT INCIDENTS IN THE MEMA DISTRICT 8 REGION

Location	# of Events	Deaths	Injuries	Property Damage
<i>Covington County</i>	24	1	0	\$19,750
<i>Forrest County</i>	100	0	0	\$336,370
<i>Greene County</i>	1	0	0	\$0
<i>Jefferson Davis County</i>	1	0	0	\$55,300
<i>Jones County</i>	54	1	0	\$102,315
<i>Marion County</i>	5	0	2	\$317,999
<i>Perry County</i>	7	0	0	\$0
<i>Wayne County</i>	6	0	1	\$4,450
TOTAL:	198	2	3	\$836,184

Source: USDOT PHMSA

PIPELINES

Between 2002 and 2024, there have been four pipeline incidents in the *MEMA District 8 Region*. These incidents are listed in **Table 5.33** below.

TABLE 5.33: SUMMARY OF HAZMAT PIPELINE INCIDENTS IN THE MEMA DISTRICT 8 REGION

Location	Date	Operator	Deaths/ Injuries	Property Damage
<i>Petal</i>	4/22/2003	N/A	0/0	\$55,300
<i>Columbia</i>	8/4/2004	Gulf South Pipeline Company	0/0	\$106,991
<i>Collins</i>	4/11/2009	Transmonaigne Operating Company	0/0	\$85,904
<i>Columbia</i>	9/10/2009	Gulf South Pipeline Company	0/0	\$103,511
TOTAL:	4		0/0	\$351,706

METH LABS

Meth lab incidents have occurred at various times throughout the *MEMA District 8 Region*. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

5.15.4 Probability of Future Occurrence

HAZARDOUS MATERIALS

Given the location of twenty-two toxic release inventory sites in the *MEMA District 8 Region* and several serious roadway incidents, it is possible that a hazardous material incident may occur in the region, though it is unlikely (less than one percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

PIPELINES

Since there have been three major pipeline incidents and there are over 2,000 miles of gas and hazardous liquid lines in the region, it is anticipated that there will be future pipeline incidents in the *MEMA District 8 Region*. However, because the chances of an incident are small relative to the spatial extent of pipelines, the probability is considered to be possible.

METH LABS

Meth lab incidents will likely continue to occur throughout the *MEMA District 8 Region*. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

5.16 CYBER TERRORISM ATTACK

5.16.1 Background

A **cyber-attack** is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a **cyberterrorism incident** as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. Many aspects of our lives rely on the Internet and computers, including communications (email, cell phones, texting), transportation (traffic control signals, car engine systems, airplane navigation), government (birth/death records, social security, licensing, tax records), finance (bank accounts, loans, electronic paychecks), medicine (equipment, medical records), and education (virtual classrooms, online report cards, research). Consider how much of your personal information is stored either on your own computer or on someone else’s system. How is that data and the systems on which that data resides (or is transmitted) kept secure? Cyber security involves protecting the information and systems we rely on every day whether at home, work or school.

The increasing volume and sophistication of cyber security threats including targeting phishing scams, data theft, and other online vulnerabilities demand that we remain vigilant about securing our systems and information. The average unprotected computer (i.e. does not have proper security controls in place) connected to the Internet can be compromised in moments. Thousands of infected web pages are being discovered every day. Hundreds of millions of records have been involved in data breaches. New attack methods are launched continuously. These are just a few examples of the threats facing us, and they highlight the importance of information security as a necessary approach to protecting data and systems. Source: Mississippi Office of Homeland Security (MOHS). A **cyberterrorism event** can impact one or more of the State and its counties’, corresponding departments’ and divisions’ information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

Incidents can be the result of any of the following:

- Intentional and unintentional acts
- Actions of employees
- Actions of vendors or constituents
- Actions of third parties
- External or internal acts
- Credit card fraud
- Potential policy violations
- Natural disasters and power failures
- Acts related to violence, warfare or terrorism
- Serious wrongdoing

The motives behind cyberterrorism attacks can vary. However, according to Hackmageddon, a comprehensive website that catalogs **cyber-attacks** through timelines and statistics, the top six motives in are listed in the table below. See **Table 5.34**.

TABLE 5.34: TOP MOTIVES FOR CYBERTERRORISM

Motives	Definitions
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Cyber Crime	Crime that involves or carried out by a computer and a network. The computer may have been used in the commission of a crime, or it may be the target.
Cyber Espionage	The act or practice of obtaining secrets and information without the permission and knowledge of the holder of the information from individuals, competitors, rivals, groups, governments and enemies for personal, economic, political or military advantage using methods on the Internet, networks or individual computers through the use of proxy servers, cracking techniques and malicious software including Trojan horses and spyware.
Hacktivism	Refers to the use of computers and any other IT system and network to debate and sustain a political issue, promote free speech, and support human rights. Hacktivism is mainly interpreted by society as the transposition of the protest and the civil disobedience into cyberspace.
Cyber Warfare	Actions by a nation-state to penetrate another nation's computers or networks for the purposes of causing damage or disruption.
Phishing	is when attackers send scam emails (or text messages) that contain links to malicious websites. The websites may contain malware (such as ransomware) which can sabotage systems and organizations. Or they might be designed to trick users into revealing sensitive information (such as passwords) or transferring money.
Spear Phishing	Phishing emails can hit an organization of any size and type. You might get caught up in a mass campaign (where emails are sent indiscriminately to millions of inboxes), or it could be the first step in a targeted attack against your company, or a specific employee. In these targeted campaigns, the attacker uses information about your employees or company to make their messages even more persuasive and realistic.

5.16.2 Location and Spatial Extent

The **cyberterrorism hazard** is not geography-based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. **Targets of cyberterrorism** can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

When a **cyber security incident** occurs, the State of Mississippi uses the following factors to evaluate its severity:

- Nature of the attack
- Criticality of systems that are (or could be) made unavailable
- Value of the information compromised (if any)
- Number of people, agencies, or functions impacted
- Business considerations
- Public relations
- Effects on the State's entire IT enterprise

Cyberterrorism may range from the infection of a single machine by a common computer virus to a large-scale, organized incident that cripples an organization or infrastructure.

5.16.3 Historical Occurrences

Even there have been no disruption of services within State government, Mississippi is no stranger to similar types of cyberterrorism attacks. In 2017, a Lebanese national executed a distributed denial of service (DDOS) attack on a Ridgeland

business. The hacker utilized a computer in Lebanon to extort payments from the Ridgeland business while conducting computer attacks to interfere with its computer business and operations. This type of act is considered a denial-of-service attack, where an attacker attempts to prevent legitimate users from accessing information or services, preventing one from accessing email, websites, online accounts (banking, etc.), or other services that rely on the affected computer.

Even as this plan is being updated, the City of Atlanta has been held hostage by a ransomware attack for 6-days and counting. So far, the hackers are asking \$51,000 in Bitcoin to unlock the city's systems. Luckily, emergency services such as 911 call and control of wastewater treatment have been exempted from the attack.

On September 13, 2023, the Singing River Health System confirmed that the threat actor behind the attack exfiltrated limited data from its systems. In an October 18, 2023, update, the health system said it is still investigating the extent to which patient information was affected and the number of individuals involved. To meet breach reporting requirements, the breach has been reported to the HHS' Office for Civil Rights as affecting at least 501 individuals. The total will be updated when the investigation concludes.

On December 18, 2023, Singing River Health System confirmed that 252,890 patients had their data compromised in the incident and notification letters were mailed on January 12, 2023.

To date, most experts believe this one of the most sustained, coordinated and consequential cyberterrorism attacks ever mounted against a major American city. The assault on Atlanta, the core of a metropolitan area of about 6 million people, represented a serious escalation from other recent cyberattacks on American cities, like the one last year in Dallas where hackers gained the ability to set off tornado sirens in the middle of the night.

Mississippi has the highest resilience to cybercrime in the United States. According to NetworkBuildz, there have been only 345 reported cyber-attacks over the last five years in Mississippi. The research examined each annual FBI Internet Crime Report of cyber-attacks in each state over the last five years, which were then compared by 100,000 people to reveal the states with the lowest risk of cybercrime. The study revealed that Mississippi residents are at the lowest risk of cybercrime in the country. Over the last five years, Mississippi experienced its highest occurrence of cybercrimes in 2022, with a total of 2,478 cyber-attacks. Overall, between 2018-2022, the state recorded 10,227 total cyber-attacks, which equates to 345 cybercrimes per 100,000 people and correlates to a total victim loss of \$82,758,951. North Dakota and Kansas take second and third place.

Actions are taken by the Department of Information Technology Services to mitigate security risks presented by, for example, blocking IP address ranges, identifying vulnerable servers, performing scans as necessary, opening Help Desk tickets to scan/check machines, etc. Losses can include loss of productivity, financial theft, and the exposure of secure information. To date, no specific losses from cyberterrorism that have affected the State are available.

5.16.4 Probability of Future Occurrences

As is the case for any large governmental organization, the Jurisdiction could be impacted and compelled to respond to **cyberterrorism** in the future. The nature of these attacks is projected to evolve in sophistication over time. The State has taken a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations. The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails.

On average, hackers attempt 26,000 **cyberattacks** per day, or once every three seconds, in the United States and 90% of all cyber-attacks begin with phishing. That statistic alone (by Forbes) should alarm every municipality, company, and private citizen in this country and beyond. According to Cybersecurity Ventures, the global annual cost of cybercrime is predicted to reach \$9.5 trillion in 2024. Compounding this is the rising cost of damages resulting from cybercrime, which is expected to reach \$10.5 trillion by 2025.

5.17 PANDEMIC

5.17.1 Background

An **influenza pandemic** is a global outbreak of a new influenza A virus that is very different from current and recently circulating human seasonal influenza A viruses. Pandemics happen when new (novel) influenza A viruses emerge which are able to infect people easily and spread from person to person in an efficient and sustained way. Because the virus is new to humans, very few people will have immunity against the **pandemic virus**, and a vaccine might not be widely available. The new virus will make a lot of people sick. How sick people get will depend on the characteristics of the virus, whether or not people have any immunity to that virus, and the health and age of the person being infected. With seasonal flu, for example, certain chronic health conditions are known to make those people more susceptible to serious flu infections. **Pandemics** begin as influenza (such as H5N1) but once the infection reaches global proportions it becomes a pandemic. A **pandemic** results when a virus mutates from an animal to a strain that can be passed to humans. Humans have no immunity to these new strains, making them especially deadly. The strain may ultimately mutate to a form where it can be passed from human-to-human. Given the lack of immunity, the virus spreads quickly and can have devastating effects on the population. When the virus spreads globally, it is deemed a pandemic.

The World Health Organization (WHO) constantly monitors flu cases throughout the world. WHO has developed a system of identifying where the world stands with regard to pandemic flu. The system has six phases :

Phase 1: No new influenza virus has been found in people or animals.

Phase 2: New virus has appeared in animals, but no human cases.

Phase 3: A new strain of animal influenza virus infects humans, but there have not been human-to-human infections.

Phase 4: The new virus passes from person to person, but transmission is limited and confined to a certain location.

Phase 5: There is frequent transmission of the virus between people in a particular place, but it hasn't spread to the rest of the world.

Phase 6: Pandemic. The virus is widespread worldwide.

Post-Peak Period: Levels of pandemic influenza in most countries have dropped below peak levels.

Possible New Wave: Level of pandemic influenza activity in most counties rising again.

Post-Pandemic Period: Levels of influenza activity have returned to levels seen for seasonal influenza.

Pandemics are also known to occur in waves. For example, initial wave of infected persons may be those first to contract the virus. These people may subsequently pass it to health officials or family members. For this reason, the duration of pandemic outbreaks tends to last weeks or even months.

5.17.2 Location and Spatial Extent

Pandemics are global in nature. However, they may start anywhere. *MEMA District 8* chose to analyze this hazard after the COVID Pandemic.

All populations should be considered at risk to **pandemic**. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be shutdown, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

5.17.3 Historical Occurrences

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S.

today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has been several pandemics, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Pandemic (H1N1) Spanish Flu: The 1918 influenza pandemic was the most severe pandemic in recent history. It was caused by an H1N1 virus with genes of avian origin. Although there is not universal consensus regarding where the virus originated, it spread worldwide during 1918-1919. In the United States, it was first identified in military personnel in spring 1918. It is estimated that about 500 million people or one-third of the world's population became infected with this virus. The number of deaths was estimated to be at least 50 million worldwide with about 675,000 occurring in the United States. Mortality was high in people younger than 5 years old, 20-40 years old, and 65 years and older. The high mortality in healthy people, including those in the 20-40-year age group, was a unique feature of this pandemic. With no vaccine to protect against influenza infection and no antibiotics to treat secondary bacterial infections that can be associated with influenza infections, control efforts worldwide were limited to non-pharmaceutical interventions such as isolation, quarantine, good personal hygiene, use of disinfectants, and limitations of public gatherings, which were applied unevenly. *Source CDC.*

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957-1958 Pandemic (H2N2 virus) Asian Flu: In February 1957, a new influenza A (H2N2) virus emerged in East Asia, triggering a pandemic ("Asian Flu"). This H2N2 virus was comprised of three different genes from an H2N2 virus that originated from an avian influenza A virus, including the H2 hemagglutinin and the N2 neuraminidase genes. It was first reported in Singapore in February 1957, Hong Kong in April 1957, and in coastal cities in the United States in summer 1957. The estimated number of deaths was 1.1 million worldwide and 116,000 in the United States.

1968 Pandemic (H3N2 virus) Hong Kong Flu: The 1968 pandemic was caused by an influenza A (H3N2) virus comprised of two genes from an avian influenza A virus, including a new H3 hemagglutinin, but also contained the N2 neuraminidase from the 1957 H2N2 virus. It was first noted in the United States in September 1968. The estimated number of deaths was 1 million worldwide and about 100,000 in the United States. Most excess deaths were in people 65 years and older. The H3N2 virus continues to circulate worldwide as a seasonal influenza A virus. Seasonal H3N2 viruses, which are associated with severe illness in older people, undergo regular antigenic drift. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Pandemic (H1N1pdm09 virus): This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and those with chronic respiratory, cardiac, neurological, or immunity conditions. From April 12, 2009, to April 10, 2010, CDC estimated there were 60.8 million cases (range: 43.3-89.3 million), 274,304 hospitalizations (range: 195,086-402,719), and 12,469 deaths (range: 8868-18,306) in the United States due to the (H1N1)pdm09 virus. CDC estimated that 151,700-575,400 people worldwide died from (H1N1)pdm09 virus infection during the first year the virus circulated.** Globally, 80 percent of (H1N1)pdm09 virus-related deaths were estimated to have occurred in people younger than 65 years of age. This differs greatly from typical seasonal influenza epidemics, during which about 70 percent to 90 percent of deaths are estimated to occur in people 65 years and older.

Though the 2009 flu pandemic primarily affected children and young and middle-aged adults, the impact of the (H1N1)pdm09 virus on the global population during the first year was less severe than that of previous pandemics.

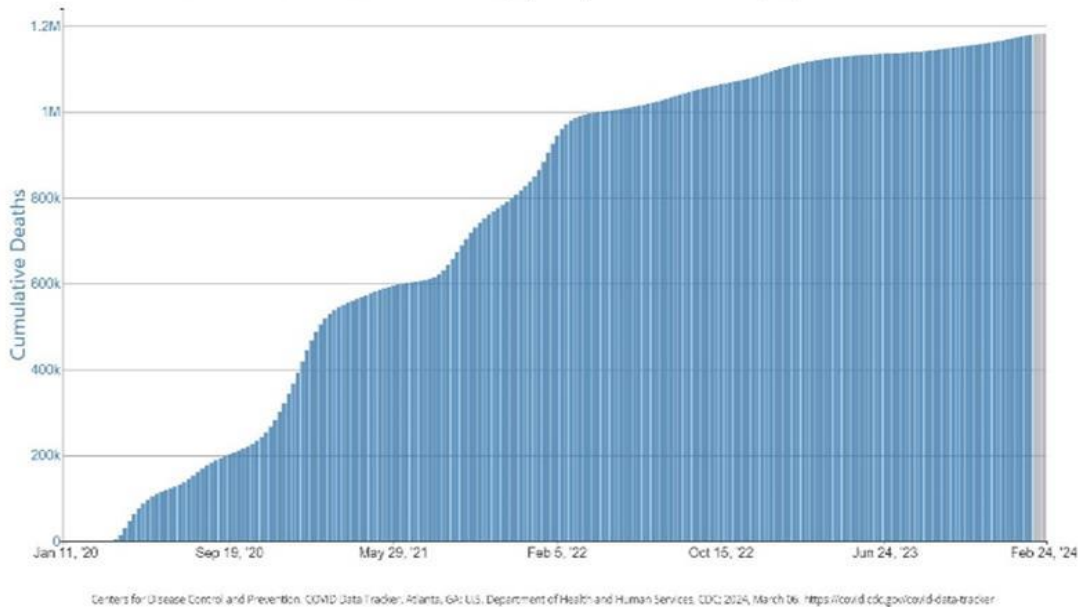
COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have

underlying health conditions. Understanding your COVID-19 risk and the risks that might affect others can help you make decisions to protect yourself and others. Source: CDC. **See Figure 5.34 A and B.**

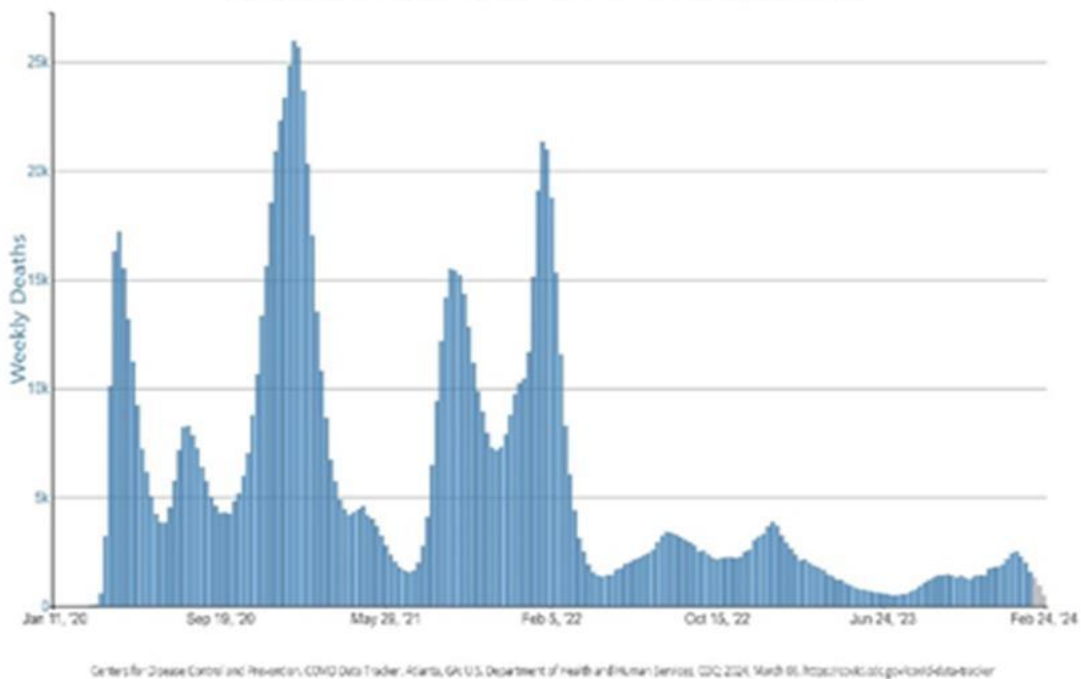
FIGURES 5.34 A: U.S. CUMMULATIVE DEATHS AND U.S. WEEKLY DEATHS

Cumulative Provisional COVID-19 Deaths, by Week, in The United States, Reported to CDC



FIGURES 5.34 A: U.S. CUMMULATIVE DEATHS AND U.S. WEEKLY DEATHS CONTINUED

Provisional COVID-19 Deaths, by Week, in The United States, Reported to CDC



Source: CDC

FIGURE 38 B: MISSISSIPPI CUMULATIVE DEATHS AND WEEKLY DEATHS IN MISSISSIPPI

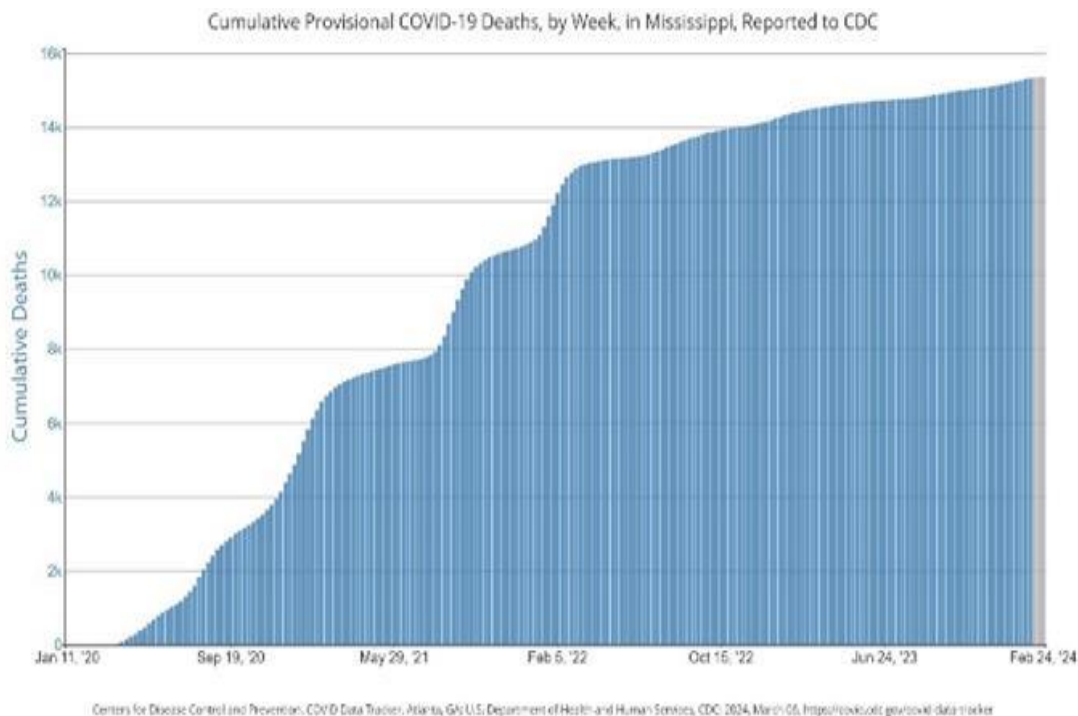
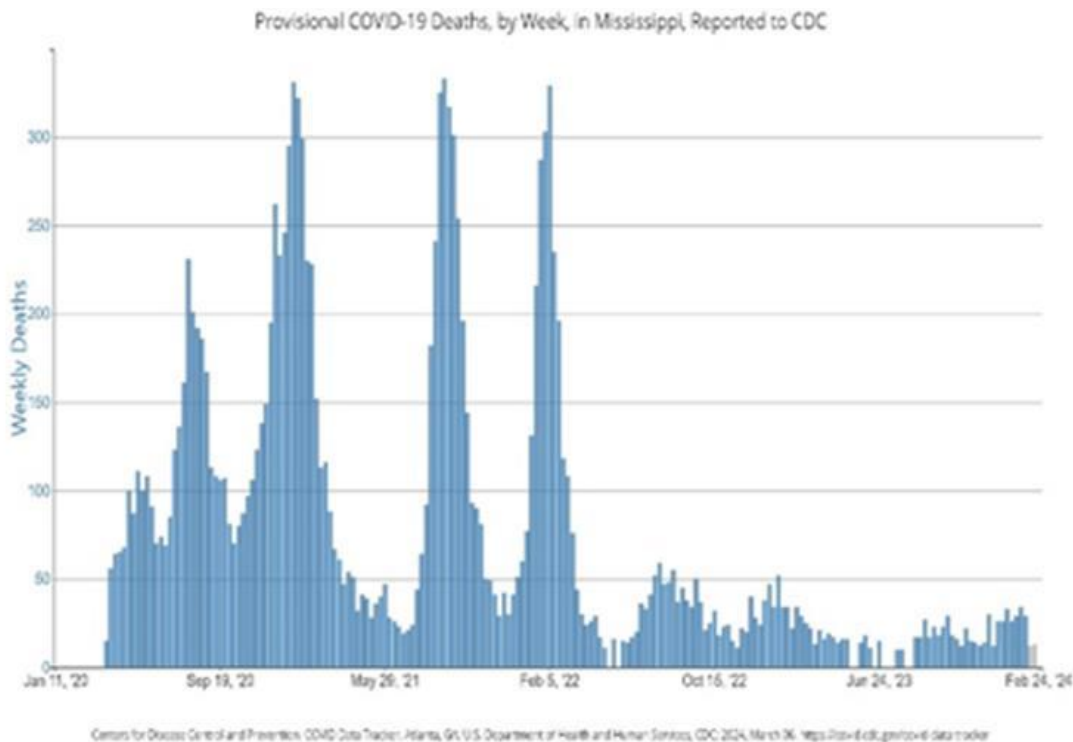


FIGURE 38 B: MISSISSIPPI CUMULATIVE DEATHS AND WEEKLY DEATHS IN MISSISSIPPI CONTINUED



Source: CDC

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

It is notable that no birds have been infected with Avian Flu in North and South America.

5.17.4 Probability of Future Occurrences

Based on historical occurrence information, it is assumed that all of the *MEMA District 8 Region* has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154,pdf/SNSPlan.pdf>

5.18 CLIMATE CHANGE

5.18.1 Background

Over the last 12 months, human-caused climate change affected temperatures experienced by 7.6 billion people. That's nearly every person on the planet (96% of the global population). Scientists have been measuring the signals of human-driven global climate change for decades. We know how much planet-warming carbon dioxide we've released into the atmosphere since 1850 (660 billion metric tons). And we know how much global temperatures have increased since then (2°F, or 1.1°C). An estimated 55% of the global population lives in cities, where urban heat islands worsen the risks posed by extreme heat. Climate Central's analysis reveals that billions of people in 1,000+ global cities are already experiencing climate change in their daily lives. Source: Climate Central. See **Figures 5.39** and **5.40**

FIGURE 5.39 : 10/1/2021 TO 9/30/2022; 365 DAYS OF CLIMATE CHANGE

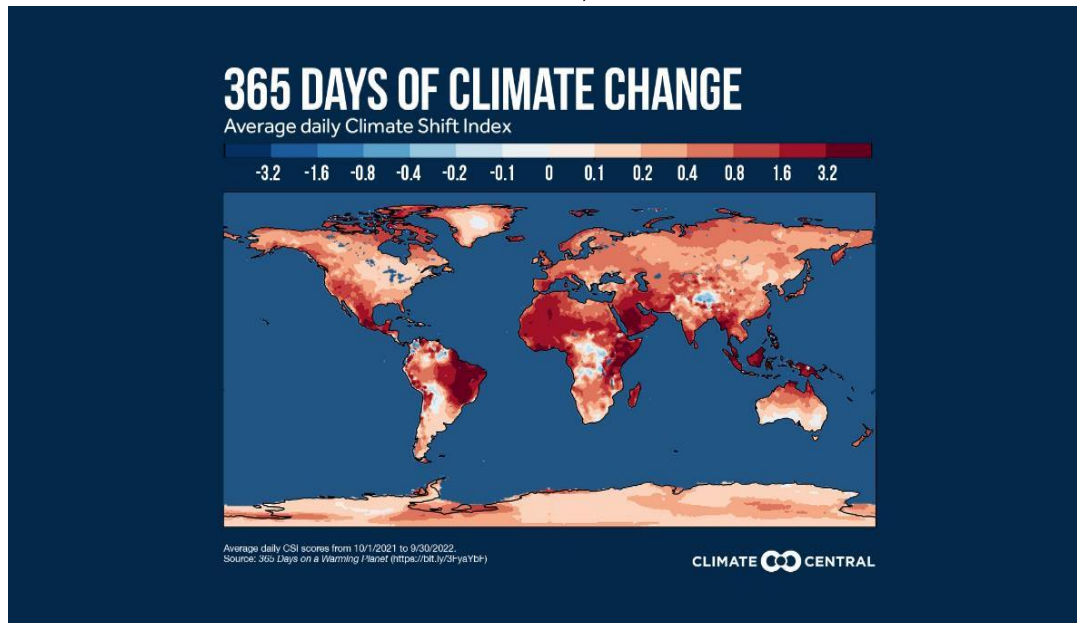
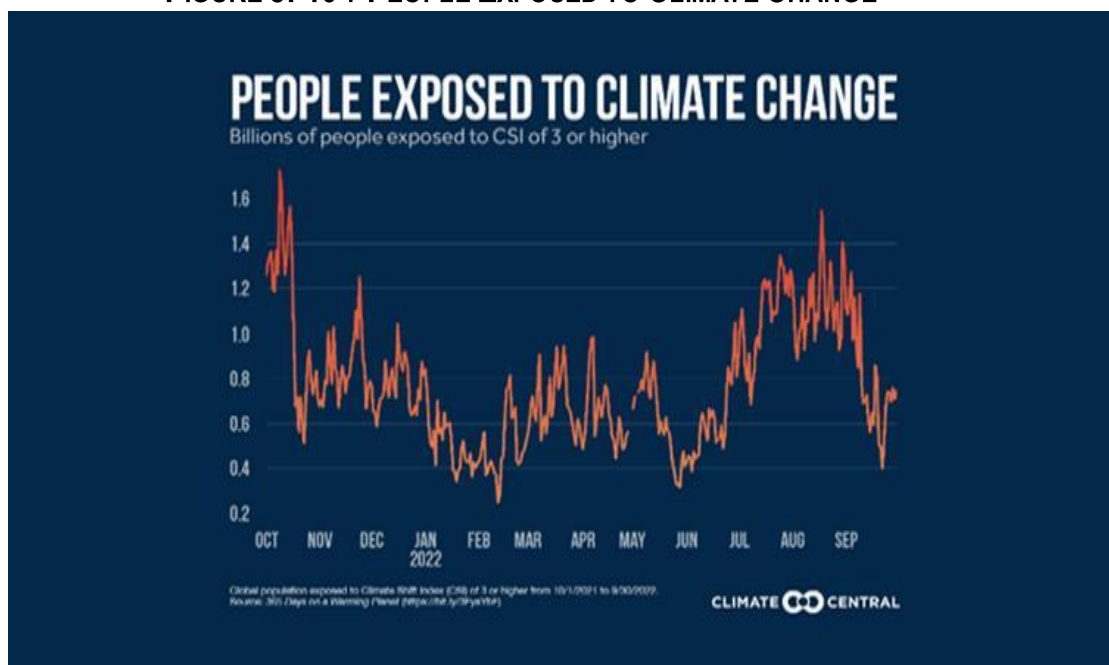


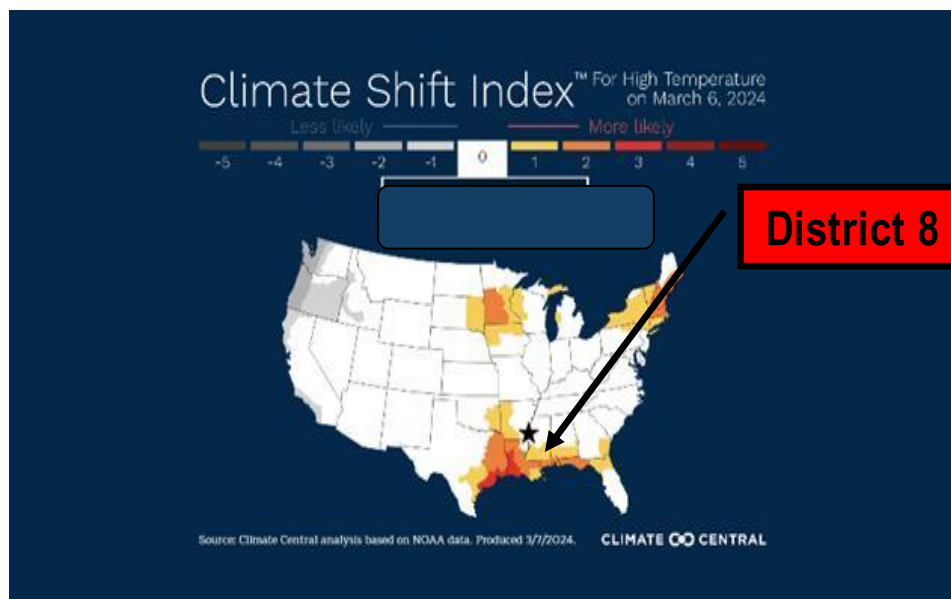
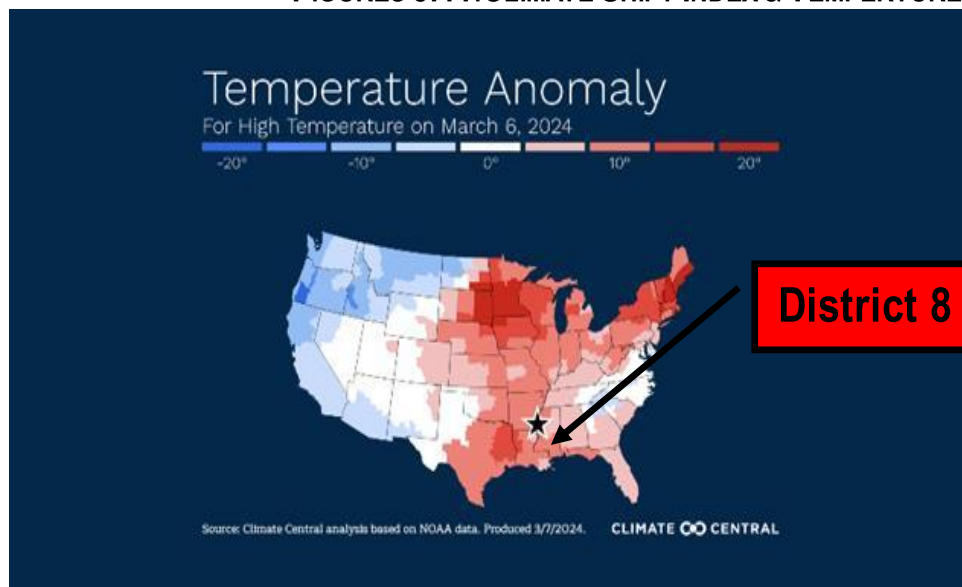
FIGURE 5. 40 : PEOPLE EXPOSED TO CLIMATE CHANGE



Source: Climate Central

The **Climate Shift Index™ (CSI)** is a tool developed by Climate Central in 2022 and grounded in the latest peer-reviewed attribution science. The **Climate Shift Index™ (CSI)** has 11 levels: five positive, five negative, and one representing no change. **CSI levels** indicate how climate change has altered the frequency of daily high, low, and average temperatures at a given location. **CSI levels** from +1 to +5 indicate that human-caused climate change has made the observed or forecasted temperatures more likely or, equivalently, more common. **CSI levels** from -1 to -5 indicate temperatures that are becoming less likely or less common due to human-caused climate change. and **Figures 5.41**.

FIGURES 5.41: CLIMATE SHIFT INDEX & TEMPERATURE ANOMALYS



Source: Climate Central

The **Climate Shift Index™** is based on the ratio of the local frequency of a particular daily temperature in the current climate to the estimated frequency of that temperature in a world without human-caused climate change. The **CSI** is a categorical scale, with the categories defined by the ratio of how common (or likely) a temperature is in today's altered climate vs. how common it would be in a climate without human-caused climate change. For the positive **CSI** conditions (which occur much more often than the negative), we assigned a simple descriptor to these events. **See Table 5.35** Source: Climate Central

TABLE 5.35: CLIMATE SHIFT INDEX SCALE

Descriptor	CSI Level	Interpretation	CSI Level	Interpretation
No Effect	0	The influence of climate change on the conditions (i.e. the daily high or low temperature) is not detectable. These conditions could occur about as often with or without climate change.	0	The influence of climate change on the conditions(i.e. the daily high or low temperature) is not detectable. These conditions could occur about as often with or without climate change.
Moderate	1	Climate change made the conditions at least 1.5 times more likely. A CSI level of 1 indicates a detectable climate influence.	-1	Climate change made the conditions at least 1.5 times less likely.
Strong	2	Climate change made the conditions at least twice as common. CSI levels of 2 and higher indicate a dominant climate influence.	-2	Climate change made the conditions at least 2x less common.
Very Strong	3	Climate change made the conditions at least 3x more likely	-3	Climate change made the conditions at least 3x less likely
Extreme	4	Climate change made the conditions at least 4x more common. These conditions would be extremely rare without climate change	-4	Climate change made the conditions at least 4x more common. These conditions would be extremely rare with climate change
Exceptional	5	Climate change made the conditions at least 5x more likely, potentially far more. This is an exceptional event driven by climate change.	-5	Climate change made the conditions more than 5x less likely. These conditions are becoming exceptionally rare with climate change.

5.18.2 Location and Spatial Extent

Cold/Winter Weather

Extreme cold events still occur in a warming world, but they're getting shorter and milder. Since 1970, the coldest day of the year has warmed by 7°F on average across 242 U.S. locations analyzed by *Climate Central*. Yearly coldest temperatures rose at least 1°F in 97% of locations across every U.S. region. Coldest days have warmed the most on average in the Ohio Valley (8.7°F) and Northwest (8.4°F). Warming during the coldest time of year has year-round effects — on seasonal allergies, fruit and nut crops, water supplies, winter sports, and more. While extreme and dangerous cold events like last week's still occur in a warming world, cold extremes are generally becoming less frequent and milder across the U.S.

Thunderstorms/Heavy Rainfall

Climate change is supercharging the water cycle, leading to heavier rainfall extremes in many parts of the U.S., which can lead to hazardous flash flooding and landslides. 90% of the 150 U.S. locations analyzed now experience more average rainfall per hour than in 1970. The average change in hourly rainfall intensity across all 150 stations from 1970 to 2021 was +13%. Increases in hourly rainfall intensity were widespread; the risks posed by short bursts of extreme rainfall—for flooding, health, and the economy—are relevant for both wet and dry locations.

Hurricane/Tropical Storms

Tropical cyclones and climate change: The effects of climate change on hurricanes are complex, but research shows rising temperatures are causing hurricanes to become more intense. Higher tropical cyclone rainfall rates are expected with further warming. And rising sea levels further enhance the risk of flooding from tropical cyclones, sometimes increasing hurricane damages by billions of dollars. Ocean warming due to human-caused climate change is fueling an increased proportion of intense tropical cyclones and contributing to an increased fraction of storms that undergo rapid intensification. Warming oceans are fueling stronger tropical cyclones—the most costly and deadly weather disasters in the U.S. Of the 10 most costly weather disasters in U.S. history, eight were hurricanes. About 80% of major hurricanes undergo rapid intensification. In the Atlantic, 170 landfalling tropical cyclones have experienced rapid intensification since 1980. Of the 56 tropical cyclones that have caused at least \$1 billion in damage in the U.S. from 1980-2021, 73% underwent rapid intensification.

5.18.3 Historical Occurrences

Cold/Winter Weather

From 1970 to 2021, winter cold snaps got shorter — by six days on average — in 97% of 244 U.S. locations. Climate Central analyzed trends in minimum annual temperatures in 242 U.S. locations to see how the coldest days of the year have changed from 1970 to 2023. The analysis shows that the coldest days are losing their chill:

- Across all 242 locations, annual coldest temperatures have warmed by 7°F on average since 1970.
- Yearly coldest temperatures rose at least 1°F in 234 (97%) of locations — and by at least 5°F in 179 (74%) of locations.
- A rise of at least 10°F was recorded in 50 locations — one-third of which were located in the Ohio Valley.

Thunderstorms/Heavy Rainfall

Intensifying rainfall has been affecting Americans for more than three decades. Changes in rainfall from 1988 to 2017 accounted for one-third of U.S. flood damages (about \$73 billion) over that same period. And the most intense downpours caused the largest damages. Intensifying rainfall has been affecting Americans for more than three decades. Changes in rainfall from 1988 to 2017 accounted for one-third of U.S. flood damages (about \$73 billion) over that same period. And the most intense downpours caused the largest damages.

Hurricane/Tropical Storms

Landfalling tropical cyclones: Tropical cyclones, which include hurricanes and tropical storms, are the most deadly and costly weather disasters in the U.S. by far. Tropical cyclones with damages exceeding \$1 billion account for a total of \$1.19 trillion in damage since 1980—more than half of the cost of all billion-dollar disasters since then.

Of the 10 most costly weather disasters in the U.S., eight were hurricanes. The top three (Hurricanes Maria, Harvey, and Katrina) resulted in a total of 4,903 lives lost and over \$442 billion in damages. Total billion-dollar tropical cyclone costs are highest in Louisiana, Texas, and Florida—but extend to 29 states throughout the South, Southeast, Northeast, and Ohio Valley, as well as to Hawaii, Puerto Rico, and the U.S. Virgin Islands.

Tropical cyclones can generate multiple devastating hazards including storm surge, heavy rainfall, flooding, winds of 100 mph or more, and tornadoes. About half of the fatalities in the U.S. attributed to Atlantic tropical cyclones from 1963-2012 were due to storm surge. Another 27% of fatalities were due to heavy rainfall, which increases the risk of flooding far from the coast. The risks multiply when hurricane-induced power outages overlap with other extreme events such as heatwaves.

While the frequency of landfalling hurricanes in the continental U.S. hasn't changed from 1900-2017, the resulting economic losses have increased significantly over the same period. Population growth and regional wealth along the U.S. Gulf and East Coasts (increased exposure) are reflected in the increased damage.

5.18.4 Probability of Future Occurrences

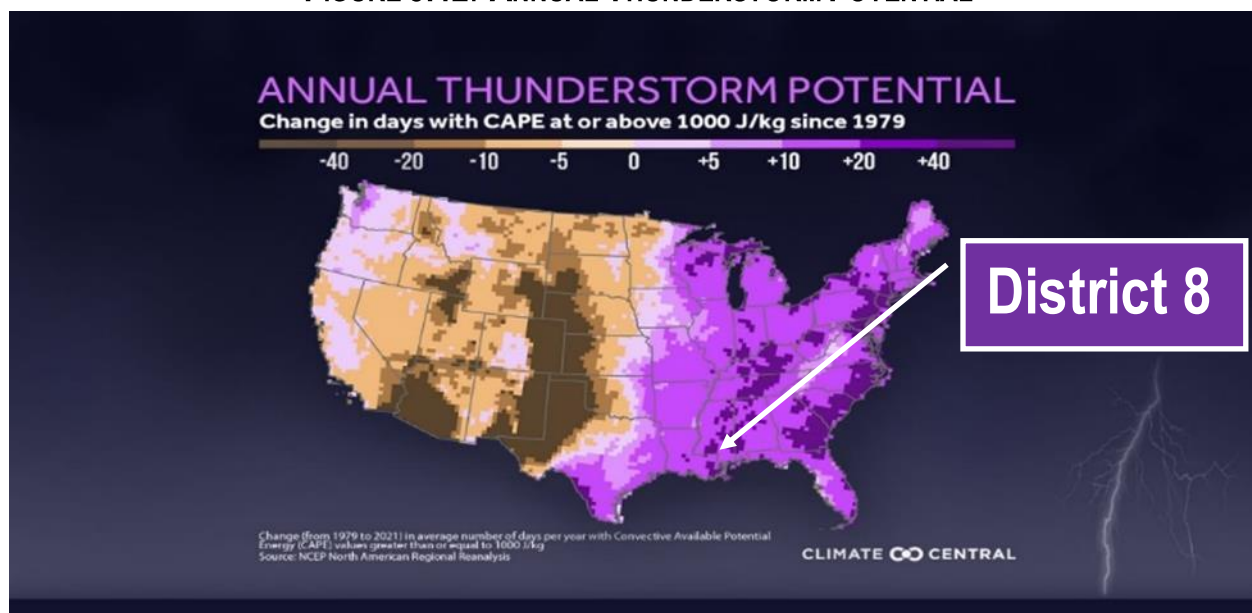
Cold/Winter Weather: Much of the U.S. typically experiences the coldest days of the year in mid- to late-January. But as the planet warms, those coldest days are warming up, too. Winter warming has and will continue to have year-round effects:

- Contributes to longer growing seasons and longer allergy seasons.
- Disrupts the chill that valuable fruit and nut crops depend on.
- Changes the timing, location, and amount of snowfall — as well as spring snowmelt and water supplies.
- Decreases home heating demand, which can be offset by longer, higher cooling demand during warm seasons.
- Allows mosquitos to thrive; annual mosquito days have risen with temperatures across the U.S.
- Can have serious consequences for cold-weather sports in the U.S. and around the world.

Thunderstorms/Heavy Rainfall: Heavy downpours bring more rain over a shorter period, which can lead to flash flooding and landslides. These events are especially hazardous because their rapid onset limits time to issue warnings and get people out of harm's way. An increase in the Simple Hourly Rainfall Intensity Index indicates an increase in hourly rainfall intensity—in other words, more rain falling per hour. More rain per hour in most places—even dry ones and 90% of the 150 stations analyzed had an increase in hourly rainfall intensity since 1970.

The average change in the Simple Hourly Rainfall Intensity Index from 1970 to 2021 was +13%. 3% (95/150) of stations had an increase in hourly rainfall intensity of +10% or more. See **Figure 5.42**.

FIGURE 5.42: ANNUAL THUNDERSTORM POTENTIAL



Source: Climate Central

Thunderstorm severity is a sliding scale. Warm, rising air is central to the formation of thunderstorms. The amount of energy available for this rising air is called convective available potential energy (CAPE). Higher CAPE values mean more energy available to move throughout the atmosphere, and thus greater potential for thunderstorms.

Severe Storms: As our climate continues to warm, certain conditions favorable to thunderstorms and tornadoes are occurring more often and severe weather activity is expanding into historically less-active seasons and regions.

Severe storms — thunderstorms that produce tornadoes, damaging wind, and/or hail — are localized events with limited historical records — making it difficult to directly link their occurrence to global climate change.

Thunderstorm potential depends on the season. The highest CAPE values generally occur between April and September each year—the same months that have historically seen the most frequent, costly, and deadly impacts from severe storms in the U.S.

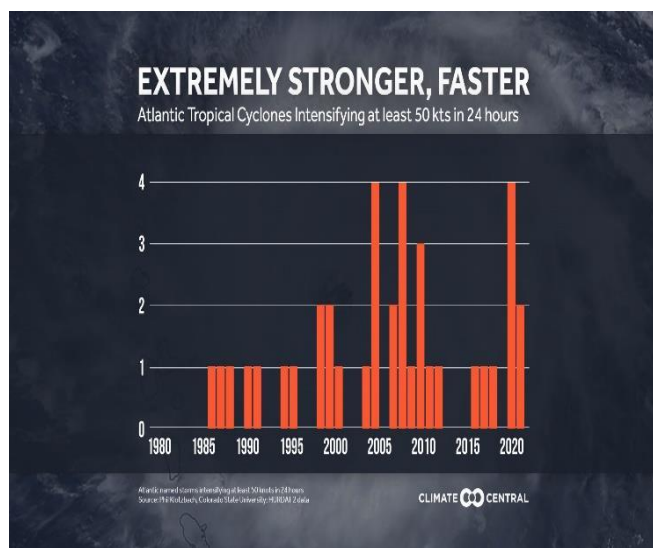
Here's some of what we do know:

- Although the number of tornadoes each year hasn't changed since 1970 (when excluding the weakest events), tornado variability has increased — concentrated in fewer outbreaks of larger magnitude. And tornado frequency has shifted eastward since 1979, with increased tornadic activity observed in the South, Southeast, and Ohio Valley.
- Since 1979, parts of the eastern U.S. have seen up to 15 more days annually with high convective available potential energy during spring and summer—prime time for thunderstorms.
- Studies suggest that conditions favorable to severe thunderstorms will become about 5-20% more frequent per 1.8°F of warming. Whether these changing conditions will ultimately result in the formation of more severe storms remains an active area of research.

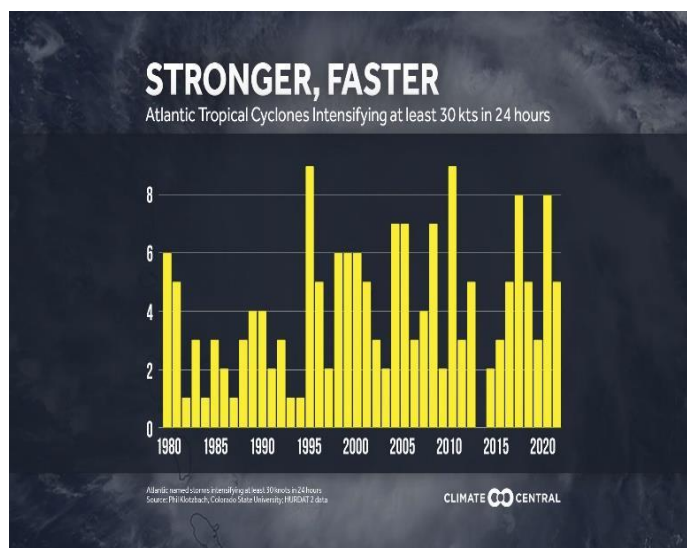
Hurricane/Tropical Storms & Rapidly intensifying hurricanes: About 80% of major hurricanes (category 3-5) undergo rapid intensification—defined as an increase in the maximum sustained winds of a tropical cyclone of at least 30 kt (about 35 mph) in a 24-hour period. It can be challenging to forecast rapid intensification, and this contributes to the high human and financial toll of such storms.

From 1980-2021, 170 landfalling Atlantic tropical cyclones experienced rapid intensification above the 30 kt threshold. Of these storms, 22% (38) experienced extremely rapid intensification (an increase in maximum sustained winds of at least 50 kt (about 58 mph) in a 24-hour period). See **Figures 5.43**. Of the 56 tropical cyclones that have caused at least \$1 billion in damage in the U.S. from 1980-2021, 73% underwent rapid intensification.

FIGURES 5.43: INCREASING STRONGER AND FASTER TROPICAL CYCLONES



Source: Climate Central



Rising losses from tropical cyclones: The risks from tropical cyclones reflect a combination of three factors:

- physical hazards that result from tropical cyclones (e.g., storm surge),
- exposure of people and property to these hazards where and when they occur, and
- the vulnerability of populations in the storm track (e.g., capacity to respond and recover).

Tropical Cyclones: Warming oceans fuel stronger tropical cyclones that bring more heavy rainfall and higher storm surge when they make landfall. Warming of the surface ocean due to human-caused climate change is fueling an increased proportion of intense tropical cyclones and contributing to an increased fraction of storms that undergo rapid intensification. Higher tropical cyclone rainfall rates are expected with further warming. Greater rainfall intensity can increase the risk of inland flooding, which accounts for more than half of past U.S. hurricane deaths.

Droughts: Droughts are likely to be more severe because periods without rain may be longer and very hot days will be more frequent. More warming, more extremes, more people at risk. As the planet warms, many dangerous extreme events — from **heat waves** to **wildfires** and **heavy rainfall** and **floodings** — have become more frequent and/or intense around the globe.

Drought: Rising global temperatures are altering the water cycle and increasing the risk of drought in parts of the U.S. Warming air increases the potential evaporation from the land and transpiration from plants. This process increases the water available for precipitation in some areas but leads to drying in other areas.

Risks of severe and prolonged **megadroughts** in the Southwest are projected to intensify over this century with continued warming. As the climate continues to warm, the western U.S. also faces increasing risks of hydrological drought due to declining snowpack and earlier spring melt.

Flooding: Climate change is bringing heavier rainfall extremes and increased, inequitable flood risk to many parts of the U.S. For every 1°F of warming the air can hold an extra 4% of moisture, increasing the chances of heavier downpours that contribute to the risk of flash floods. Precipitation extremes are likely to increase globally, even in regions with decreasing average precipitation such as the U.S. Southwest, which is likely to face more intense **flash floods** with high future levels of heat-trapping emissions.

Wildfire: More frequent hot, dry, windy conditions contribute to more wildfires that put people and ecosystems at risk. **Wildfires** can be an ecologically important disturbance. But human-caused climate change, poor land management practices, and sprawling development have increased both the availability of fuel and the frequency of weather conditions that spark and spread dangerous fires. Regardless of how fires start, more frequent hot, dry, windy conditions affect fuel availability, fire behavior (ignition, duration, and spreading), and can compromise suppression efforts.

Assessing how climate change impacts severe weather is challenging because severe storms are complex, local, and short-lived. CAPE quantifies air instability, just one of several important factors in severe weather formation. Tornadoes also need spin. It's unclear how the wind shear that generates tornado spin responds to rising temperatures. Still, the number of tornadoes in large outbreaks, and the frequency of storm-producing weather conditions, is trending upwards.

5.18.5 Billion Dollar Disasters and Their Impacts

One of the key transformations is scaling up insured loss data to account for uninsured and underinsured losses, which differs by peril, geography, and asset class. However, these loss assessments do not take into account losses to natural capital or assets, healthcare related losses, or values associated with loss of life. Therefore, our estimates should be considered conservative with respect to what is truly lost but cannot be completely measured.

The increases in population and material wealth over the last several decades are an important factor for higher damage potential. These trends are further complicated by the fact that many population centers and infrastructure exist in vulnerable areas like coasts, river floodplains and the wildland urban interface, while building codes are often insufficient in reducing damage from extreme events. **Climate change** is also playing a role in the increasing frequency of some types of extreme weather that lead to billion-dollar disasters. According to NASA, as Earth's climate changes, it is impacting extreme weather across the planet. Record-breaking heat waves on land and in the ocean, drenching rains, severe floods, years-long droughts, extreme wildfires, and widespread flooding during hurricanes are all becoming more frequent and more intense.

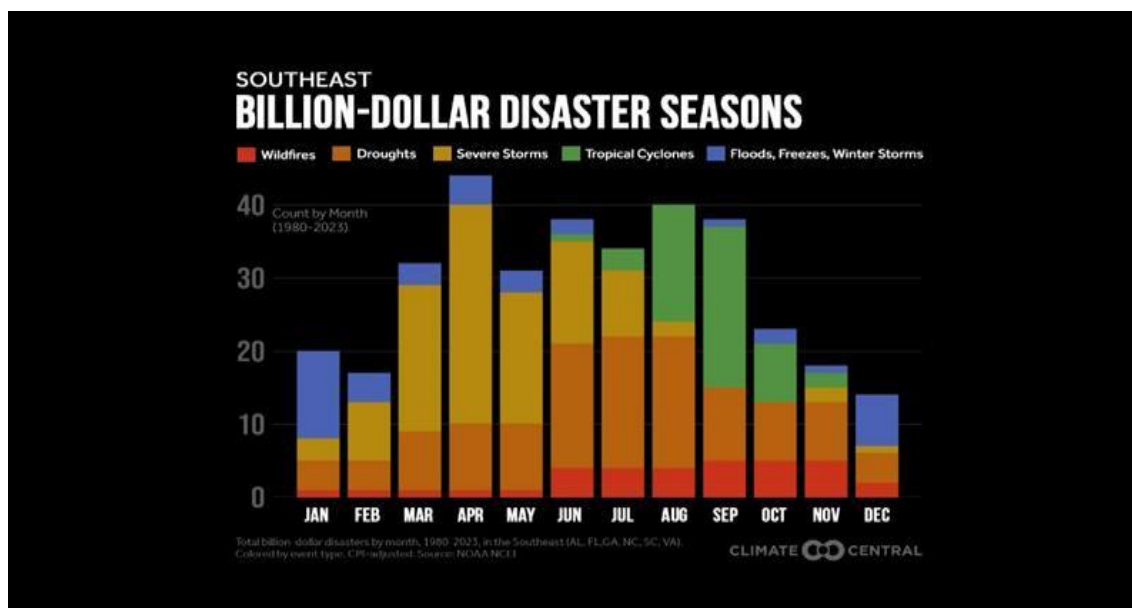
The rise in billion-dollar disasters is due both to our warming climate and to the growing number of people, homes, and businesses in at-risk areas. Extreme weather associated with climate change may impact critical infrastructure, which can cause complex secondary impacts. Plans and actions that address readiness, response, and recovery should consider climate change in the broader emergency management resilience framework to ensure that maladaptive practices, such as actions that increase risk in another phase, are not incorporated.

Scientists have predicted that droughts and floods will become more frequent and severe as our planet warms and climate changes but detecting this on regional and continental scales has proven difficult. Now a new NASA-led study confirms that **major droughts and pluvials** – periods of excessive precipitation and water storage on land – have indeed been occurring more often.

The U.S. was hit with a record 28-billion-dollar weather and climate disasters in 2023. These events resulted in an estimated 492 lives lost and over \$93 billion in damages. The previous annual record, 22 disasters, was set in 2020. See **Figure 5.44**. Among 2023's historic number of weather and climate disasters were:

- An unprecedented number of severe storms and tornado outbreaks throughout the central U.S.
- A devastating fire outbreak in Maui, Hawai'i — the deadliest U.S. wildfire in at least a century.
- Southern and Midwestern drought, resulting in extensive agricultural losses and disrupted commerce along the Mississippi River.
- Heavy flooding in California following a string of at least 12 atmospheric river storms.
- Hurricane Idalia made landfall in Florida, fueled by record-shattering sea surface temperatures.
- Heavy rainfall and flooding events in Florida and the Northeast — with some areas reporting up to eight inches of rainfall within 24-hours.

FIGURE 5.44: INCREASE OF BILLION-DOLLAR DISASTER SEASONS



Source: Climate Central and CISA

The disasters of 2023 are part of a larger trend. Billion-dollar weather and climate disasters have become more frequent and more costly, bringing different risks to each U.S. region. See **Figure 5.44**. As climate change continues to amplify extreme weather events, critical infrastructure sites will need to revisit building codes, material limitations, and regional damages during past severe events to address areas at greatest immediate risk. Overlapping or back-to-back extreme events are known as compound extreme events. We saw compound events in 2020 and 2021, when overlapping droughts and megafires devastated the western U.S. while the eastern U.S. faced back-to-back hurricanes. And in 2023, over a dozen southern and central states faced overlapping impacts from billion-dollar drought and severe storms. Billion-dollar disasters were 2.7 times more frequent over the last 20 years than during the previous 20 years. Over the same period, the average annual cost of these events has more than tripled from \$28 billion per year (1984-2003) to \$101 billion per year (2004-2023). The rise in U.S. billion-dollar disasters reflects a mix of factors:

- First, as heat-trapping pollution continues to warm the planet, many types of extreme weather and climate hazards are becoming more frequent and/or more intense in the U.S. and across the globe.
- Second, as the population has grown, so has the overall number of people, homes, and businesses at risk when extreme events occur.
- Lastly, accelerated development in fire-prone areas, along coasts, and in floodplains can multiply the damage done by a given extreme event.

Such compound disasters multiply the risks for communities and strain state and federal emergency response resources. The rise in compound events is also reflected in the dramatic decrease in the time between billion-dollar events. Over the last five years (2019-2023), there were 16 days on average between U.S. billion-dollar disasters, compared to 82 days in the 1980s. In 2023, the average time between billion-dollar disasters was just 12 days. Having less time between disasters can mean less time and resources available for communities to respond, recover quickly, and prepare for future risks. Often, these risks aren't equally shared.

Although rainfall during spring is likely to increase during the next 40 to 50 years, the total amount of water running off into rivers or recharging ground water is likely to decline 2.5 to 5 percent, as increased evaporation offsets the greater rainfall.

5.19 CONCLUSIONS ON HAZARD RISK

The hazard profiles presented in this section were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its "How-to" guidance document titled *Understanding Your Risks: Identifying Hazards and Estimating Losses* (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

5.19.1 Priority Risk Index

In order to draw some meaningful planning conclusions on hazard risk for the *MEMA District 8 Region*, the results of the hazard profiling process were used to generate countywide hazard classifications according to a “*Priority Risk Index*” (*PRI*). The purpose of the *PRI* is to categorize and prioritize all potential hazards for the *MEMA District 8 Region* as **high**, **moderate**, or **low risk**. Combined with the asset inventory and quantitative vulnerability assessment provided in the next section, the summary hazard classifications generated through the use of the *PRI* allows for the prioritization of those high hazard risks for mitigation planning purposes, and more specifically, the identification of hazard mitigation opportunities for the *MEMA District 8 Region* to consider as part of their proposed mitigation strategy.

The prioritization and categorization of identified hazards for the *MEMA District 8 Region* is based principally on the *PRI*, a tool used to measure the degree of risk for identified hazards in a particular planning area. The *PRI* is used to assist the *MEMA District 8 Regional Hazard Mitigation Planning Council* in gaining consensus on the determination of those hazards that pose the most significant threat to the *MEMA District 8 counties* based on a variety of factors. The *PRI* is not scientifically based but is rather meant to be utilized as an objective planning tool for classifying and prioritizing hazard risks in the *MEMA District 8 Region* based on standardized criteria.

The application of the *PRI results* in numerical values that allow identified hazards to be ranked against one another (the higher the *PRI value*, the greater the hazard risk). *PRI values* are obtained by assigning varying degrees of risk to five categories for each hazard (probability, impact, spatial extent, warning time, and duration). Each degree of risk has been assigned a value (1 to 4) and an agreed upon weighting factor, as summarized in **Table 5.36**. To calculate the *PRI value* for a given hazard, the assigned risk value for each category is multiplied by the weighting factor. The sum of all five categories equals the final *PRI value*, as demonstrated in the example equation below:

PRI VALUE = [(PROBABILITY x .30) + (IMPACT x .30) + (SPATIAL EXTENT x .20) + (WARNING TIME x .10) + (DURATION x .10)]

According to the weighting scheme and point system applied, the highest possible value for any hazard is 4.0. When the scheme is applied for the *MEMA District 8 Region*, the highest **PRI value** is 3.2 (hurricane/tropical storm) and 2.9 (thunderstorm wind / high wind). Prior to being finalized, *PRI values* for each identified hazard were reviewed and accepted by the members of the *MEMA District 8 Regional Hazard Mitigation Planning Council*. See **Table 5.37**.

TABLE 5.36: PRIORITY RISK INDEX FOR THE MEMA DISTRICT 4 REGION

PRI Category	Degree of Risk			Assigned Weighting Factor
	Level	Criteria	Index Value	
Probability	Unlikely	Less than 1% annual probability	1	30%
	Possible	Between 1 and 10% annual probability	2	
	Likely	Between 10 and 100% annual probability	3	
	Highly Likely	100% annual probability	4	
Impact	Minor	Very few injuries, if any. Only minor property damage and minimal disruption on quality of life. Temporary shutdown of critical facilities.	1	30%
	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one day.	2	
	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one week.	3	
	Catastrophic	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for 30 days or more.	4	
Spatial Extent	Negligible	Less than 1% of area affected	1	20%
	Small	Between 1 and 10% of area affected	2	
	Moderate	Between 10 and 50% of area affected	3	
	Large	Between 50 and 100% of area affected	4	
Warning Time	More than 24 hours	Self-explanatory	1	10%
	12 to 24 hours	Self-explanatory	2	
	6 to 12 hours	Self-explanatory	3	
	Less than 6 hours	Self-explanatory	4	
Duration	Less than 6 hours	Self-explanatory	1	10%
	Less than 24 hours	Self-explanatory	2	
	Less than one week	Self-explanatory	3	
	More than one week	Self-explanatory	4	

5.19.2 Priority Risk Index Results

Table 5.37 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI.

Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating PRI values and making final determinations for the risk assessment.

TABLE 5.37: SUMMARY OF PRI RESULTS FOR THE MEMA DISTRICT 8 REGION

Hazard	Category/Degree of Risk					
	Probability	Impact	Spatial Extent	Warning Time	Duration	PRI Score
Hydrological Hazards						
Flood	Likely	Limited	Small	6 to 12 hours	Less than 24 hours	2.4
Erosion	Possible	Minor	Small	More than 24 hours	More than a week	1.8
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 6 hours	2.0
Fire-Related Hazards						
Drought/ Heat Wave	Highly Likely	Minor	Large	More than 24 hours	More than a week	2.8
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than 1 week	2.3
Geologic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 hours	1.7
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Atmospheric Hazards						
Hurricane/Tropical Storm	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hail	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Winter Weather/Freeze	Possible	Limited	Large	More than 24 hours	Less than 24 hours	2.3
Other Hazards						
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Cyber Attack	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Pandemic	Possible	Critical	Large	More than a week	More than a week	2.8
Climate Change	Possible	Critical	Large	More than a week	More than a week	2.6

5.20 FINAL DETERMINATIONS

The conclusions drawn from the hazard profiling process for the *MEMA District 8 Region*, including the *PRI results* and input from the *RHMC*, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table 5.38). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of the *MEMA District 8 Region*. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in *Section 6: Vulnerability Assessment*. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE 5.38: CONCLUSIONS ON HAZARD RISK FOR THE MEMA DISTRICT 8 REGION

High Risk	<i>Hurricane and Tropical Storm</i> <i>Thunderstorm/ High Wind</i> <i>Tornado</i> <i>Drought/ Heat Wave</i> <i>Pandemic</i> <i>Lightning</i>
Moderate Risk	<i>Dam Failure</i> <i>Flood</i> <i>Hailstorm</i> <i>Pipeline Incident</i> <i>Hazardous Material</i> <i>Wildfire</i> <i>Winter Weather Event</i> <i>Climate Change</i>
Low Risk	<i>Expansive Soils</i> <i>Erosion</i> <i>Earthquake</i> <i>Landslide</i> <i>Hazardous Material Incident</i> <i>Meth Lab Incident</i> <i>Cyber Terrorism</i>

SECTION 6

VULNERABILITY ASSESSMENT

This section identifies and quantifies the vulnerability of the *MEMA District 8 Region* to the significant hazards identified in the previous sections (Hazard Identification and Profiles). It consists of the following subsections:

- ✦ 6.1 Overview
 - ✦ 6.2 Methodology
 - ✦ 6.3 Explanation of Data Sources
 - ✦ 6.4 Asset Inventory
 - ✦ 6.5 Vulnerability Assessment Results
 - ✦ 6.6 Conclusions on Hazard Vulnerability
-

44 CFR Requirement

44 CFR Part 201.6(c)(2)(ii): The risk assessment shall include a description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. The description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of: (A) The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas; (B) An estimate of the potential losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate; (C) Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

6.1 OVERVIEW

This section builds upon the information provided in *Section 4: Hazard Identification* and *Section 5: Hazard Profiles* by identifying and characterizing an inventory of assets in the *MEMA District 8 Region*. In addition, the potential impact and expected amount of damages caused to these assets by each identified hazard event is assessed. The primary objective of the vulnerability assessment is to quantify exposure and the potential loss estimates for each hazard. In doing so, the *MEMA District 8 counties* and their participating jurisdictions may better understand their unique risks to identified hazards and be better prepared to evaluate and prioritize specific hazard mitigation actions.

This section begins with an explanation of the methodology applied to complete the vulnerability assessment, followed by a summary description of the asset inventory as compiled for the *MEMA District 8 Region*. The remainder of this section focuses on the results of the assessment conducted.

6.2 METHODOLOGY

This **vulnerability assessment** was conducted using three distinct methodologies: (1) A stochastic risk assessment; (2) a geographic information system (GIS)-based analysis; and (3) a risk modeling software analysis. Each approach provides estimates for the potential impact of hazards by using a common, systematic framework for evaluation, including historical occurrence information provided in the Hazard Identification and Analysis sections. A brief description of the three different approaches is provided on the following pages.

6.2.1 Stochastic Risk Assessment

The **stochastic risk assessment methodology** was applied to analyze hazards of concern that were outside the scope of hazard risk models and the GIS-based risk assessment. This includes hazards that do not have geographically-definable boundaries and are therefore excluded from spatial analysis through GIS. A **stochastic risk methodology** was used for the following hazards:

- ✦ Dam Failure
- ✦ Drought
- ✦ Erosion
- ✦ Hailstorm
- ✦ Landslide
- ✦ Lightning
- ✦ Thunderstorm Wind
- ✦ Tornado
- ✦ Winter Storm and Freeze

Many of the hazards listed above are considered atmospheric and have the potential to affect all buildings and all populations. For many of these hazards listed above, no additional analysis was performed. When possible, annualized loss estimates were determined using the best available data on historical losses from sources including NOAA's National Centers for Environmental Information records, *MEMA District 8 Region* county hazard mitigation plans, and local knowledge. Annualized loss is the estimated long-term weighted average value of losses to property in any single year in a specified geographic area (i.e., municipal jurisdiction or county). Annualized loss estimates were generated by totaling the amount of property damage over the period of time for which records were available and calculating the average annual loss. Given the standard weighting analysis, losses can be readily compared across hazards providing an objective approach for evaluating mitigation alternatives.

For the dam failure, drought, erosion, and landslide hazards, no data with historical property damages was available. Therefore, annualized potential losses for these hazards are presumed to be negligible. Drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze have the potential to impact the entire *MEMA District 8 region*. The results for these hazards are found at the end of this section in **Table 6.12**.

6.2.2 GIS-Based Analysis

Other hazards have specified geographic boundaries that permit additional using Geographic Information Systems (GIS). These hazards include:

- ✦ Hazardous Material Incident
- ✦ Wildfire

The objective of the GIS-based analysis was to determine the estimated vulnerability of critical facilities and populations for the identified hazards in the *MEMA District 8 Region* using best available geospatial data. Digital data was collected from local, regional, state, and national sources for hazards and buildings. This included local records for critical facilities and infrastructure when available. ArcGIS™ was used to assess hazard vulnerability utilizing digital hazard data, as well as local building data. Using these data layers, hazard vulnerability can be quantified by estimating the assessed building value for parcels and/or buildings determined to be located in identified hazard areas.

To estimate vulnerable populations in hazard areas, digital Census 2020 data by census tract was obtained. This was intersected with hazard areas to determine exposed population counts. Unfortunately, due to the large scale of census tracts, the results are limited, but will be revised with population by census block when available. The results of the analysis provided an estimate of the number of people and critical facilities, as well as the replacement value of buildings, determined to be potentially at risk to those hazards with delineable geographic hazard boundaries.

6.2.3 Risk Modeling Software Analysis

A risk modeling software was used for the following hazards:

- ✦ Earthquake
- ✦ Flood
- ✦ Hurricane and Tropical Storm

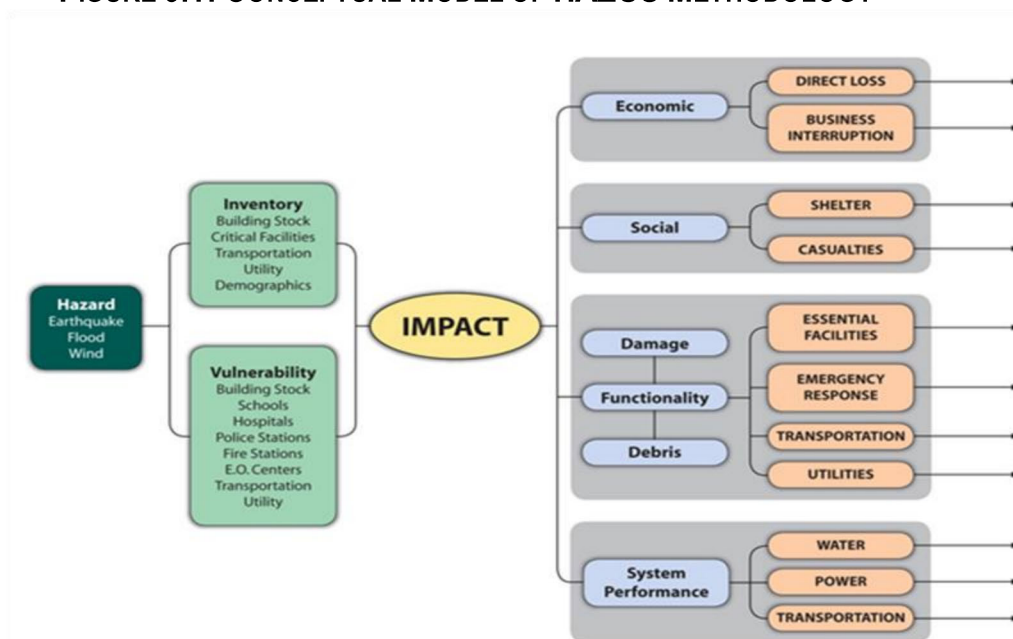
There are several models that exist to model hazards. **HAZUS** was used in this vulnerability assessment to address the aforementioned hazards.

HAZUS

HAZUS (“HAZUS”) is a standardized loss estimation software program developed by FEMA. It is built upon an integrated **GIS** platform to conduct analysis at a regional level (i.e., not on a structure-by-structure basis). The *HAZUS risk assessment* methodology is parametric, in that distinct hazard and inventory parameters (e.g., wind speed and building types) can be modeled using the software to determine the impact (i.e., damages and losses) on the built environment.

The *MEMA District 8 Regional Risk Assessment* utilized HAZUS to produce hazard damage loss estimations for hazards for the planning area. At the time this analysis was completed, HAZUS was used to estimate potential damages from hurricane winds, earthquake hazards, and flood hazards using HAZUS methodology. Although the program can also model losses for storm surge, it was not used in this Risk Assessment. **Figure 6.1** illustrates the conceptual model of the *HAZUS* methodology.

FIGURE 6.1: CONCEPTUAL MODEL OF HAZUS METHODOLOGY



HAZUS is capable of providing a variety of loss estimation results. Results are based on location-specific scenarios to provide a complete picture of hazard vulnerability.

Loss estimates provided in this vulnerability assessment are based on best available data and methodologies. The results are an approximation of risk. These estimates should be used to understand relative risk from hazards and potential losses. Uncertainties are inherent in any loss estimation methodology, arising in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from approximations and simplifications that are necessary for a comprehensive analysis (e.g., incomplete inventories, non-specific locations, demographics, or economic parameters).

All conclusions are presented in “Conclusions on Hazard Vulnerability” at the end of this section.

6.3 EXPLANATION OF DATA SOURCES

FLOOD—HAZUS was used to assess flood vulnerability for the Region. The scenario chosen was a probabilistic 100-year event and reports expected building damages, shelter requirements, and economic losses.

WILDFIRE—The data used to determine vulnerability to wildfire in the *MEMA District 8 Region* is based on GIS data called the Wildfire Hazard Potential. It was provided for use in this plan by the Mississippi Forestry Commission.

EARTHQUAKE—HAZUS was used to assess earthquake vulnerability. Default HAZUS-MH methodologies were used to determine the probability of damage for a 100-year frequency event and reports expected building damages, debris generation, shelter requirements, and economic losses.

LANDSLIDE—As a result of the low susceptibility and low incidence of landslide for counties in the *MEMA District 8 Region*, a GIS-based vulnerability analysis was not carried out for this plan. USGS Landslide Susceptibility Index data was evaluated along with historic occurrences to determine landslide vulnerability and vulnerability was determined to be consistently low throughout the region.

HURRICANE AND TROPICAL STORM WIND—HAZUS was used to assess wind vulnerability. For the hurricane wind analysis, a probabilistic scenario was created to estimate damage in the *MEMA District 8 Region*. Default HAZUS wind speed data, damage functions, and methodology were used in to determine the probability of damage for 100-year frequency events in the scenario.

HAZARDOUS MATERIALS INCIDENT—For the fixed hazardous materials incident analysis, Toxic Release Inventory (TRI) data was used. The Toxic Release Inventory is a publicly available database from the federal Environmental Protection Agency (EPA) that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990. Each year, facilities that meet certain activity thresholds must report their releases and other waste management activities for listed toxic chemicals to EPA and to their state or tribal entity. A facility must report if it meets the following three criteria:

- The facility falls within one of the following industrial categories: manufacturing; metal mining; coal mining; electric generating facilities that combust coal and/or oil; chemical wholesale distributors; petroleum terminals and bulk storage facilities; RCRA Subtitle C treatment, storage, and disposal (TSD) facilities; and solvent recovery services;
- Has 10 or more full-time employee equivalents; and
- Manufactures or processes more than 25,000 pounds or otherwise uses more than 10,000 pounds of any listed chemical during the calendar year. Persistent, bio accumulative, and toxic (PBT) chemicals are subject to different thresholds of 10 pounds, 100 pounds, or 0.1 grams depending on the chemical.

For the mobile hazardous materials incident analysis, transportation data including major highways and railroads were obtained from the National Atlas. This data is **ArcGIS** compatible, lending itself to buffer analysis to determine risk.

6.4 ASSET INVENTORY

An inventory of geo-referenced assets within the *MEMA District 8 counties and jurisdictions* was compiled in order to identify and characterize those properties potentially at risk to the identified hazards. By understanding the type and number of assets that exist and where they are located in relation to known hazard areas, the relative risk and vulnerability for such assets can be assessed. Under this assessment, two categories of physical assets were created. A general overview of improved property for the area was identified, and critical facilities were then further assessed through GIS analysis. Additionally, social assets are addressed to determine population at risk to the identified hazards.

6.4.1 Physical and Improved Assets

The two categories of physical assets consist of:

1. **Improved Property**: Includes all improved properties in the *MEMA District 8 Region* according to HAZUS. HAZUS building count data was utilized to determine the number of buildings that were present in the planning area. This data is presented to show potential vulnerability; however, this data was not analyzed to show impacts from hazards.

HAZUS inventory data provides an estimate of the number of buildings in the study region. The economic exposure is presented to be referenced with any HAZUS-related results.
2. **Critical Facilities**: Critical facilities vary by jurisdiction. For this Vulnerability Assessment, facilities were used from HAZUS which includes fire stations, police station, medical care facilities, schools, and emergency operation centers. When provided, local data was used to supplement the HAZUS data. It should be noted that this listing is not all-inclusive for assets located in the region, but it is anticipated that it will be expanded during future plan updates as more geo-referenced data becomes available for use in GIS analysis.

The following tables provide a detailed listing of the geo-referenced assets that have been identified for inclusion in the vulnerability assessment for the *MEMA District 8 Region*.

Table 6.1 lists the number of parcels and the total assessed value of improvements for participating areas of the *MEMA District 8 Region* (study area of vulnerability assessment). HAZUS was utilized to determine the number of parcels, total improved assets, and building counts to complete the analysis.

TABLE 6.1: IMPROVED PROPERTY IN THE MEMA DISTRICT 8 REGION

Location	Number of Parcels	Total Assessed Value of Improvements
<i>Covington County</i>	8,877	\$1,613,517,000
<i>Forrest County</i>	28,780	\$7,621,195,000
<i>Greene County</i>	--	--
<i>Jefferson Davis County</i>	5,782	\$852,147,000
<i>Jones County</i>	29,059	\$5,912,251,000
<i>Marion County</i>	12,536	\$2,186,833,000
<i>Perry County</i>	5,608	\$874,179,000
<i>Wayne County</i>	9,627	\$1,501,381,000
MEMA District 8 Total:	100,269	\$19,060,122,000

Source: HAZUS-MH

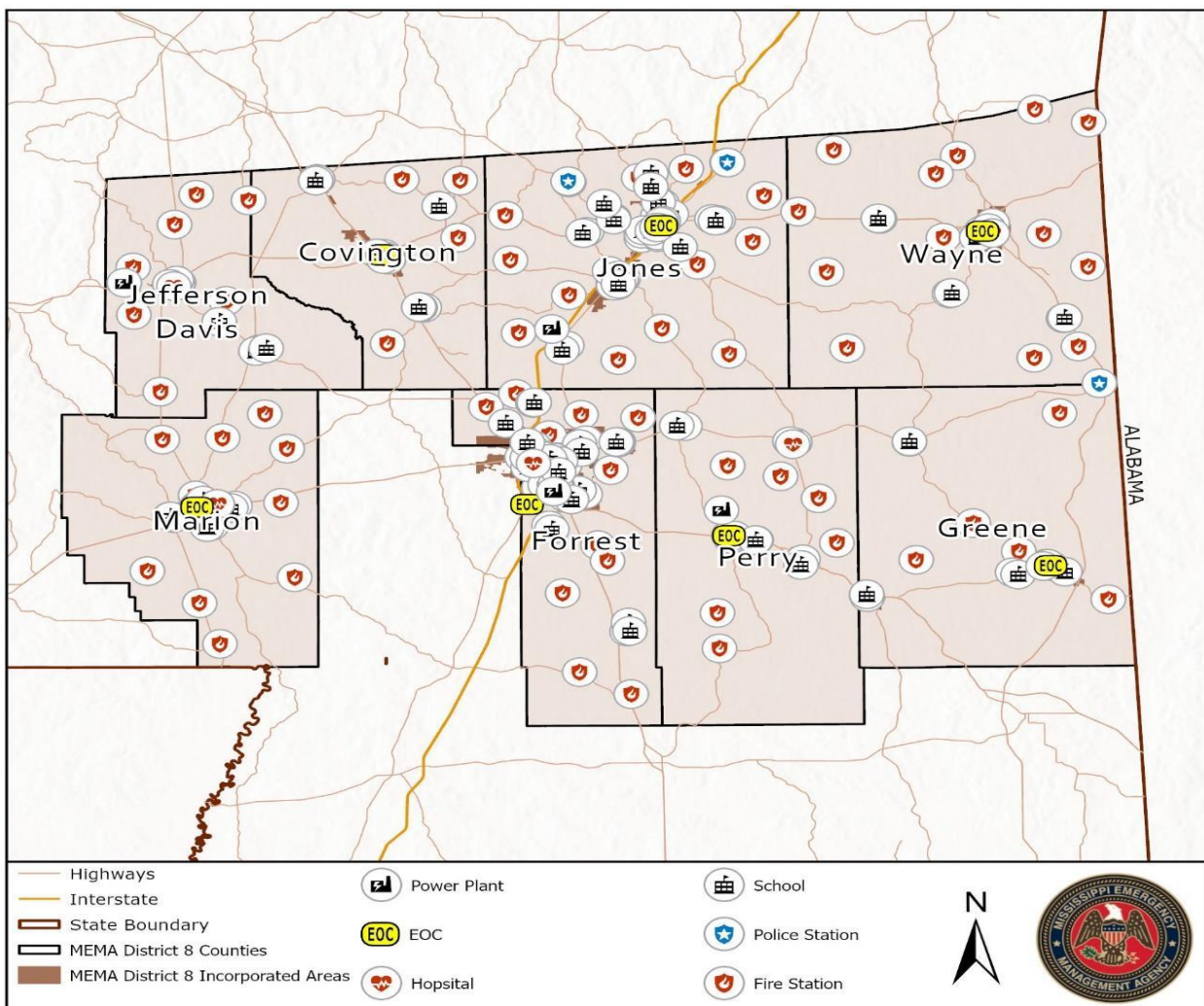
Table 6.2 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools located in the *MEMA District 8 Region* according to HAZUS Version Data from HAZUS was analyzed and checked against current records for each critical facility to determine both an accurate location and whether or not the facility was still in existence.

In addition, **Figure 6.2** shows the locations of essential facilities in the *MEMA District 8 Region*. **Table 6.6**, near the end of this section, shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided through HAZUS and local data as provided.

TABLE 6.2: CRITICAL FACILITY INVENTORY IN THE MEMA DISTRICT 8 REGION

Location	Fire Station	Police Stations	Medical Care Facilities	EOC	Schools
<i>Covington County</i>	2	3	1	0	10
<i>Forrest County</i>	25	3	2	1	26
<i>Greene County</i>	10	5	9	1	6
<i>Jefferson Davis County</i>	2	1	1	1	8
<i>Jones County</i>	2	3	1	1	22
<i>Marion County</i>	3	2	1	1	11
<i>Perry County</i>	1	2	1	0	6
<i>Wayne County</i>	2	2	1	1	9
MEMA District 8 Total:	47	21	17	6	98

FIGURE 6.2: CRITICAL FACILITY LOCATIONS IN THE MEMA DISTRICT 8 REGION



6.4.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in the *MEMA District 8 Region* that are potentially at risk to these hazards.

Table 6.3 lists the population by jurisdiction according to U.S. Census 2020. The total population in the *MEMA District 8 Region* according to Census data was 244,143 persons in 2020. The 2023 population data is presented below as an estimate; however, 2020 population data will be used throughout the vulnerability assessment. The overall population in District 8 has declined which could lead to a decrease in vulnerability. Additional population estimates are presented in *Section 3: Community Profile*.

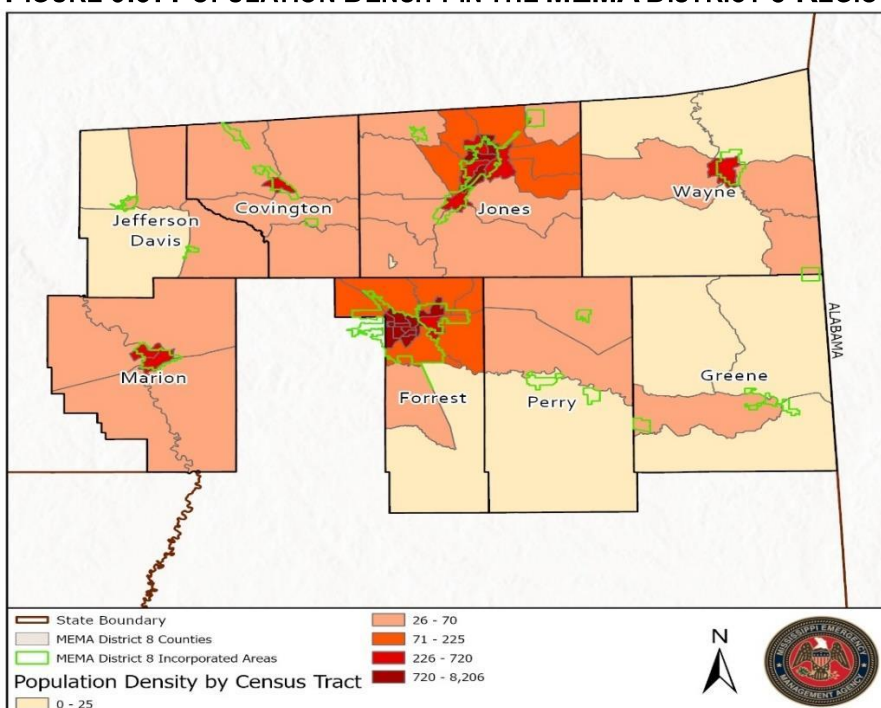
TABLE 6.3: TOTAL POPULATION IN THE MEMA DISTRICT 8 REGION

Location	2020 Population	2023 Population
<i>Covington County</i>	18,142	18,059
<i>Forrest County</i>	78,162	78,208
<i>Greene County</i>	13,540	13,601
<i>Jefferson Davis County</i>	11,320	10,969
<i>Jones County</i>	67,244	66,250
<i>Marion County</i>	24,439	24,224
<i>Perry County</i>	11,508	11,315
<i>Wayne County</i>	19,788	19,703
MEMA District 8 Total:	244,143	242,329

Source: US Census Bureau

In addition, **Figure 6.3** illustrates the population density per square mile by census tract as it was reported by the U.S. Census Bureau in 2020. As can be seen in the figure the population is spread out, with concentrations in Laurel, Hattiesburg, Columbia, and Waynesboro (The data for this can be found in the county annexes). The overall population in District 8 has declined which could lead to a decrease in vulnerability.

FIGURE 6.3: POPULATION DENSITY IN THE MEMA DISTRICT 8 REGION



6.5 VULNERABILITY ASSESSMENT RESULTS

As noted earlier, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total region exposure, and thus risk, was presented in **Table 6.1**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this subsection include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

6.5.1 Flood

Historical evidence indicates that the *MEMA District 8 Region* is susceptible to flood events. A total of 444 flood events have been reported by the National Centers for Environmental Information since 2000 resulting in almost \$40M in damages.

As the HAZUS model suggests below, and historical occurrences confirm, any flood activity in the area is likely to inflict damage to the planning area. HAZUS estimates a total of 100,269 buildings in the region, which have an aggregate replacement value of \$20,560,000,000. Approximately 92% of the buildings in the area are associated with residential housing. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the flood hazard vulnerability assessment, a probabilistic scenario, 100-year event, was created to estimate damages to the planning area. HAZUS estimates that approximately 450 buildings would be at least moderately damaged. This is approximately 53% of the buildings in the scenario. There is an estimated number of 96 buildings that would be damaged beyond repair. The table below shows the damage categories by general occupancy.

TABLE 6.4 EXPECTED DAMAGE CATEGORIES BY GENERAL OCCUPANCY

	1-10	11-20	21-30	31-40	41-50	>50
Agriculture	0	0	0	0	0	0
Commercial	0	4	4	0	0	1
Education	1	0	0	0	0	0
Government	0	0	0	0	0	0
Industrial	0	0	0	0	0	0
Religion	0	1	0	0	0	0
Residential	60	159	77	68	50	95
Total:	61	163	77	68	50	96

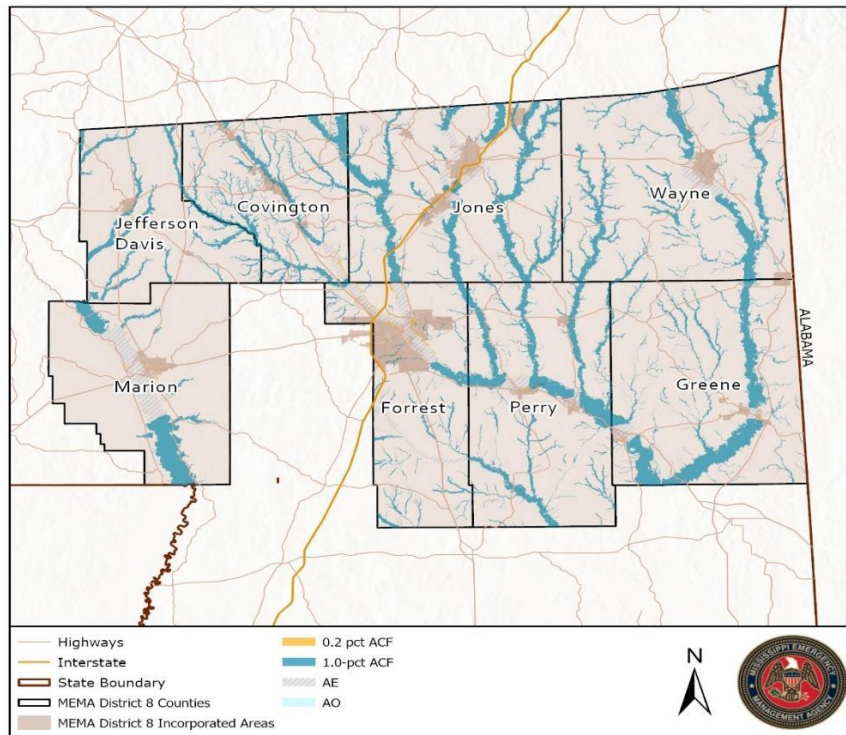
ECONOMIC LOSS

HAZUS estimated economic losses for the scenario event. All told, HAZUS estimated losses at \$703M, including buildings and lifelines. Approximately 44 percent of the losses were related to business interruption in the scenario region. 40.71 percent of the losses were sustained by residential structures.

SOCIAL VULNERABILITY

Figure 6.4 is presented to gain a better understanding of at-risk population by evaluating census tract level population data against mapped floodplains. There are areas of concern in several of the municipal population centers in this region including Columbia, Waynesboro, Laurel, Ellisville, New Augusta, Hattiesburg, Leakesville, and Collins.

Indeed, nearly every incorporated municipality is potentially at risk of being impacted by flooding in some areas of its jurisdiction. Therefore, further investigation in these areas may be warranted.

FIGURE 6.4: POPULATION DENSITY NEAR FLOODPLAINS

In the HAZUS scenario, the model estimates 2,324 households would be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 182 people would seek temporary shelter in public shelters.

CRITICAL FACILITIES

The critical facility analysis revealed that there are fifty-four critical facilities located in floodplain. (Please note, as previously noted, this analysis does not consider building elevation, which may negate risk.) Facilities include five fire stations, seven police stations, thirteen schools, fourteen wastewater facilities and two EOCs. A list of specific critical facilities and their associated risk can be found in **Table 6.16** at the end of this section.

TABLE 6.5 FLOOD SCENARIO ESSENTIAL FACILITY EXPECTED DAMAGES

Classification	Total	Number of Facilities		
		At Least Moderate Damage > 50%	At Least Substantial Damage > 50%	Loss of Use >50% on 1-Day
Emergency Operations Center (EOC)	3	0	0	0
Fire Stations (Paid)	33	2	0	2
Hospitals	6	0	0	0
Police Stations	26	1	0	1
Schools	99	6	0	6

In conclusion, a flood has the potential to impact many existing and future buildings, facilities, and populations in the *MEMA District 8 Region*, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. Such site-specific vulnerability determinations are outside the scope of this

assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

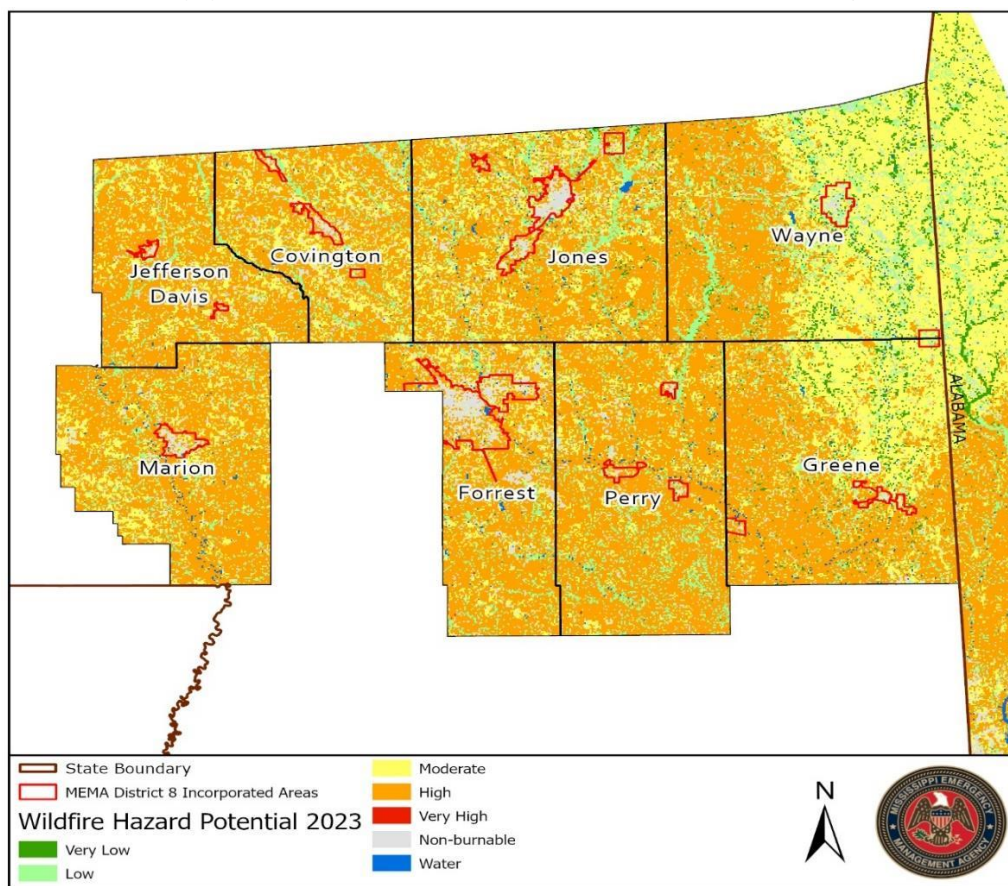
6.5.2 Wildfire

Although historical evidence indicates that the *MEMA District 8 Region* is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8*. The resulting analysis identified the hazard area each facility fell within to show the level of vulnerability for the identified facilities.

Figure 6.5 shows the wildfire hazard potential for *MEMA District 8*. According to the data, a majority of the region falls within the very low to moderate classification.

FIGURE 6.5: WILDFIRE RISK AREAS IN THE MEMA DISTRICT 8 REGION



SOCIAL VULNERABILITY

Given some level of susceptibility across the entire *MEMA District 8 Region*, it is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

CRITICAL FACILITIES

The critical facility analysis revealed that there are 4 critical facilities located in the wildfire hazard potential area (very high), 97 critical facilities located in the (High) and 52 critical facilities in the (moderate). A list of specific critical facilities and their associated risk can be found in **Table 6.16** at the end of this section.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in the *MEMA District 8 Region*.

6.5.3 Earthquake

As the HAZUS model suggests below, and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the planning area. HAZUS estimates a total of 100,269 buildings in the region, which have an aggregate replacement value of \$20,560,000,000. Approximately 92% of the buildings in the area are associated with residential housing. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that approximately 0 buildings would be at least moderately damaged. The figure shows the damage categories by general occupancy.

FIGURE 6.6 EARTHQUAKE DAMAGE CATEGORIES BY GENERAL OCCUPANCY

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	367	.37%	0	0%	0	0%	0	0%	0	0%
Commercial	5560	6%	0	0%	0	0%	0	0%	0	0%
Education	205	.21%	0	0%	0	0%	0	0%	0	0%
Government	201	.20%	0	0%	0	0%	0	0%	0	0%
Industrial	1340	1%	0	0%	0	0%	0	0%	0	0%
Other Residential	22,433	22%	0	0%	0	0%	0	0%	0	0%
Religion	796	.80%	0	0%	0	0%	0	0%	0	0%
Single Family	69,368	69%	0	0%	0	0%	0	0%	0	0%
TOTAL:	100,270		0		0		0		0	

As the figure shows, most damage was found to be in residential structures. **Table 6.6** provides the details of these findings by occupancy type and **Table 6.7** provides the details by building type.

TABLE 6.7: EARTHQUAKE SCENARIO EXPECTED BUILDING DAMAGES BY BUILDING TYPE

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	69,339	69%	0	0%	0	0%	0	0%	0	0%
Steel	2,559	3%	0	0%	0	0%	0	0%	0	0%
Concrete	660	.66%	0	0%	0	0%	0	0%	0	0%
Precast	660	.66%	0	0%	0	0%	0	0%	0	0%
Reinforced Masonry	255	.25%	0	0%	0	0%	0	0%	0	0%
Unreinforced Masonry	7,296	7%	0	0%	0	0%	0	0%	0	0%
Manufactured Housing	19,500	19%	0	0%	0	0%	0	0%	0	0%
TOTAL:	100,269		0		0		0		0	

TRANSPORTATION AND UTILITY DAMAGE

HAZUS estimated damages to highways, railways, light rail, bus facilities, ferry facilities, port facilities, and airports. Of these, no damages were expected.

TABLE 6.8: EARTHQUAKE SCENARIO- EXPECTED DAMAGES TO TRANSPORTATION SYSTEM

System	Compartment	Number of Locations				
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50%	
					After Day 1	After Day 7
Highway	<i>Segments</i>	300	0	0	300	300
	<i>Bridges</i>	1,164	0	0	1,164	1,164
	<i>Tunnels</i>	0	0	0	0	0
Railways	<i>Segments</i>	174	0	0	174	174
	<i>Bridges</i>	8	0	0	8	8
	<i>Tunnels</i>	0	0	0	0	0
	<i>Facilities</i>	2	0	0	2	2
Light Rail	<i>Segments</i>	0	0	0	0	0
	<i>Bridges</i>	0	0	0	0	0
	<i>Tunnels</i>	0	0	0	0	0
	<i>Facilities</i>	0	0	0	0	0
Bus	<i>Facilities</i>	1	0	0	1	1
Ferry	<i>Facilities</i>	0	0	0	0	0
Port	<i>Facilities</i>	0	0	0	0	0
Airport	<i>Facilities</i>	5	0	0	5	5
	<i>Runways</i>	6	0	0	6	6

HAZUS estimated damages to utility system facilities, pipelines, potable water, and electric power systems. Relatively minor utility system facility damages were estimated; no system was estimated to be damaged. The table below shows the results of expected damages to utility system facilities.

TABLE 6.9: EARTHQUAKE SCENARIO- EXPECTED DAMAGES TO UTILITY SYSTEM

System	Number of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	With Functionality > 50%	
				After Day 1	After Day 7
Potable Water	2	0	0	2	2
Waste Water	24	0	0	24	24
Natural Gas	11	0	0	11	11
Oil Systems	0	0	0	0	0
Electric Power	2	0	0	2	2
Communication	26	0	0	26	26

DEBRIS GENERATION

As part of the model, HAZUS estimated the amount of debris that would be generated by the event. The types of debris considered were brick/wood and reinforced concrete/steel. HAZUS estimated that a total of 0 tons of debris would be generated by the event.

ECONOMIC LOSS

HAZUS estimated economic losses for the scenario event. All told, HAZUS estimated losses at \$30K, including buildings and lifelines. 100 percent of the losses were related to transportation and utility lifelines. The figure below provides additional details of these estimated losses.

TABLE 6.10 EARTHQUAKE SCENARIO ECONOMIC LOSS ESTIMATES

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Totals
Income Losses	Wage	0	0	0	0	0	0
	Capital-Related	0	0	0	0	0	0
	Rental	0	0	0	0	0	0
	Relocation	0	0	0	0	0	0
	Subtotal:	0	0	0	0	0	0
Capital Stock Losses	Structural	0	0	0	0	0	0
	Non-Structural	0	0	0	0	0	0
	Content	0	0	0	0	0	0
	Inventory	0	0	0	0	0	0
	Subtotal:	0	0	0	0	0	0
Total:			0	0	0	0	0

SOCIAL VULNERABILITY

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

CRITICAL FACILITIES

The HAZUS probabilistic analysis indicated that no critical facilities would sustain measurable damage in an earthquake event. However, all critical facilities should be considered at-risk to minor damage, should an event occur. Specific vulnerabilities for these assets will be greatly dependent on their individual design and the mitigation measures in place, where appropriate. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates.

TABLE 6.11: EARTHQUAKE SCENARIO ESSENTIAL FACILITY EXPECTED DAMAGES

Classification	Total	Number of Facilities		
		At least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on Day 1
<i>Hospitals</i>	6	0	0	6
<i>Schools</i>	99	0	0	99
<i>EOCs</i>	3	0	0	3
<i>Police Stations</i>	26	0	0	26
<i>Fire Stations</i>	33	0	0	33

In conclusion, an earthquake has the potential to impact all existing and future buildings, facilities, and populations in the *MEMA District 8 Region*. The HAZUS scenario indicates that minimal damage is expected from an earthquake occurrence. While the *MEMA District 8 Region* may not experience a large earthquake (there are none on record), localized damage is possible with an occurrence.

6.5.4 Hurricane and Tropical Storm

Historical evidence indicates that the *MEMA District 8* has an elevated risk to the hurricane and tropical storm hazard. There have been eight disaster declarations due to hurricanes (Hurricane Camille, Hurricane Frederic, Hurricane Georges, Hurricane Ivan, Hurricane Dennis, Hurricane Gustav, Hurricane Katrina, Hurricane Isaac, Hurricane Nate, Hurricane Zeta, and Hurricane Ida) in the region. Several tracks have come near or traversed through the *MEMA District 8 Region*, as shown and discussed in *Section 5: Hazard Profiles- Hurricane Section*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,269 buildings in the region with a total building replacement value of \$20,562,000,000.

For this plan update, the risk assessment for Hurricane and Tropical Storm winds was developed using HAZUS. A 100-year probabilistic scenario was created and modeled. The results are presented in the following pages.

HAZUS estimated that at least 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. 69 buildings would be completely destroyed. The **Table 6.12** below shows the distribution of damage by type of occupancy and **Table 6.13** shows the distribution of damage by building type.

TABLE 6.12: HURRICANE AND TROPICAL STORM 100-YEAR EVENT SCENARIO EXPECTED BUILDING DAMAGES BY OCCUPANCY TYPE

Occupancy	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
<i>Agriculture</i>	328	87%	29	8%	12	3%	6	2%	0.70	.18%
<i>Commercial</i>	4,858	87%	520	9%	167	3%	15	.27%	0.21	0%
<i>Education</i>	178	88%	18	9%	5	2%	0.43	.21%	0	0%
<i>Government</i>	185	90%	16	7%	4	2%	0.36	.18%	0	0%
<i>Industrial</i>	1,197	89%	111	8%	27	2%	3.5	.26%	0.15	.01%
<i>Religion</i>	710	89%	70	9%	15	2%	1	.15%	0	0%
<i>Residential</i>	80,568	88%	9,600	10%	1,498	2%	68	.07%	68	.07%
Total:	88,024		10,364		1,728		94.29		69.06	

TABLE 6.13: HURRICANE AND TROPICAL STORM 100-YEAR EVENT SCENARIO EXPECTED BUILDING DAMAGES BY BUILDING TYPE

Building Type	None		Minor		Moderate		Severe		Destruction	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)

Concrete	1,143	87%	125	10%	42	3%	2	.18%	0	0%
Masonry	6,507	86%	746	10%	265	4%	17	.22%	1	.02%
Manufactured Housing	18,930	97%	347	2%	158	.81%	5	.03%	54	.28%
Steel	2,245	88%	210	8%	95	4%	11	.43%	0	.01%
Wood	59,775	86%	8,475	12%	1,006	1.5%	59	.08%	23	.03%

ECONOMIC LOSSES

HAZUS estimated economic losses for the scenario event. The total economic loss estimated for the hurricane is 349.5 million dollars, which represents 1.70 % of the total replacement value of the region's buildings. The building related losses are broken into two categories: direct property damage losses and business interruption losses. The direct property damage losses are the estimated costs to repair or replace the damage caused to the building and its contents.

The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the hurricane. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the hurricane.

The total property damage losses were 350 million dollars. 9% of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 88% of the total loss. **Table 6.14** below provides a summary of the losses associated with the building damage.

TABLE 6.14: HURRICANE / TROPICAL STORM SCENARIO ECONOMIC LOSSES

Category	Area	Residential	Commercial	Industrial	Others	Total
Property Damage	Building	214,500	16,229	2,300	3,736	236,766
	Content	72,064	5,024	1,020	1,153	79,260
	Inventory	0	113	181	35	330
	Subtotal:	286,564	21,366	3,501	4,924	316,356
Business Interruption Loss	Income	36	2,516	34	508	3,093
	Relocation	12,522	3,275	216	845	16,858
	Rental	6,839	1,557	28	64	8,487
	Wage	84	2,498	56	2,110	4,748
	Subtotal:	19,481	9,846	334	3,527	33,186

DEBRIS GENERATION

As part of the scenario, HAZUS estimated the amount of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. The model estimates that a total of 2,165,680 tons of debris will be generated. Of the total amount, 2,024,447 tons (93%) is Other Tree Debris. Of the remaining 141,233 tons, Brick/Wood comprises 21% of the total, Reinforced Concrete/Steel comprises 0% of the total, with the remainder being Eligible Tree Debris. If the building debris tonnage is converted to an estimated number of truckloads, it will require 1190 truckloads (@25 tons/truck) to remove the building debris generated by the hurricane. The number of Eligible Tree Debris truckloads will depend on how the 111,483 tons of Eligible Tree Debris are collected and processed. The volume of tree debris generally ranges from about 4 cubic yards per ton for chipped or compacted tree debris to about 10 cubic yards per ton for bulkier, uncompacted debris.

SOCIAL VULNERABILITY

HAZUS estimates the number of households that are expected to be displaced from their homes due to the hurricane and the number of displaced persons that will require accommodations. The model estimates 276 households to be displaced due to the hurricane. Of these, 85 people (out of a total population of 244,143) will seek temporary shelter in public shelters.

CRITICAL FACILITIES

Before the hurricane, the region had 1,154 hospital beds available for use. On the day of the hurricane, the model estimates that 1154 hospital beds (only 100.00%) are available for use by patients already in the hospital and those injured by the hurricane. After one week, 100.00% of the beds will be in service. By 30 days, 100.00% will be operational.

The HAZUS probabilistic analysis indicated that several essential facilities would be impacted. **Table 6.15** shows the types of facilities as well as expected function after an event.

TABLE 6.15: HURRICANE / TROPICAL STORM SCENARIO ESSENTIAL FACILITY EXPECTED DAMAGES

Classification	Total	Probability of at Least Moderate Damage > 50%	Probability of Complete Damage > 50%	Expected Loss of Use <1 Day
<i>EOCs</i>	3	0	0	3
<i>Fire Stations</i>	33	0	0	33
<i>Hospitals</i>	6	0	0	6
<i>Police Stations</i>	26	0	0	26
<i>Schools</i>	99	0	0	73

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in the *MEMA District 8 Region*.

6.5.5 Hazardous Materials Incident

Although historical evidence and existing Toxic Release Inventory sites indicate that the *MEMA District 8 Region* is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS analysis was used for fixed and mobile areas. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in the *MEMA District 8 Region*, along with buffers, were used for analysis as shown in **Figure 6.7**. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis. **Figure 6.8** shows the areas used for mobile toxic release buffer analysis.

FIGURE 6.7: TRI SITES WITH BUFFERS IN THE MEMA DISTRICT 8 REGION

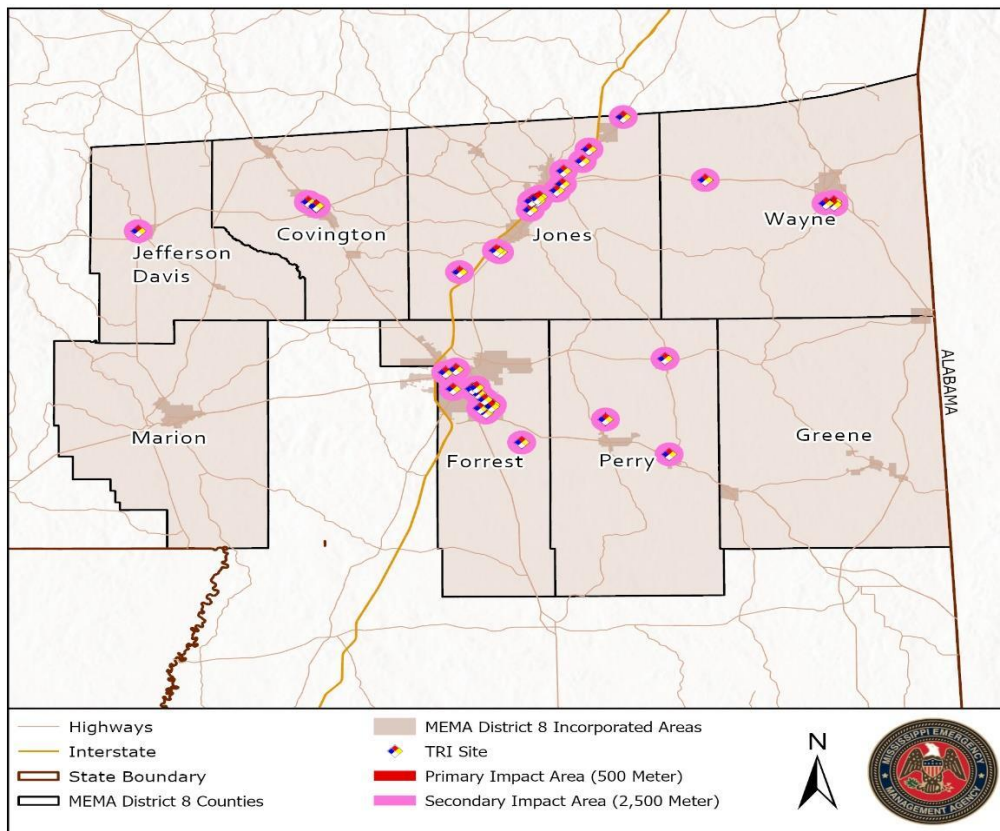
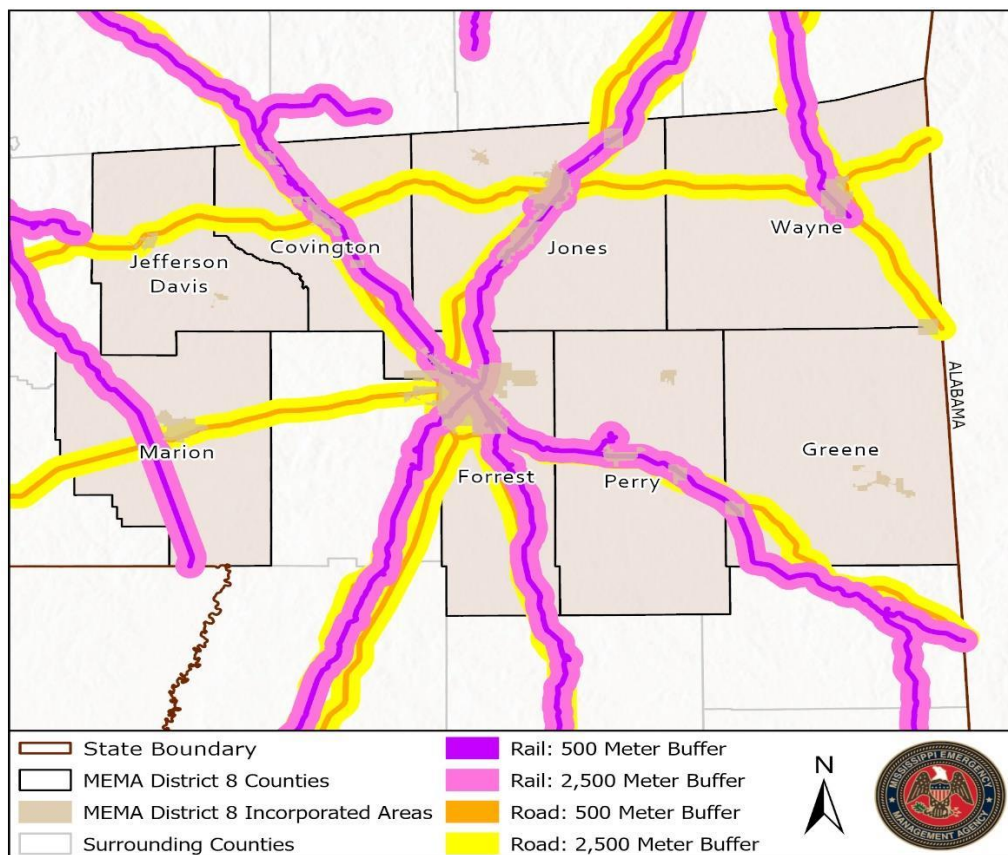


FIGURE 6.8: MOBILE HAZMAT BUFFERS IN THE MEMA DISTRICT 8 REGION



SOCIAL VULNERABILITY

Given high susceptibility across the entire *MEMA District 8 Region*, it is assumed that the total population is at risk. It should be noted that areas of population concentration (near Hattiesburg, Laurel and Waynesboro, for example) may be at an elevated risk due to a greater burden to evacuate population quickly.

CRITICAL FACILITIES

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are 198 facilities located in a hazmat risk zone. This includes 61 schools, 20 police stations, 18 fire stations, 13 medical care facilities, and 2 EOCs. A list of specific critical facilities and their associated risk can be found in **Table 6.16** at the end of this section.

Mobile Analysis:

The critical facility analysis for transportation corridors in *MEMA District 8* revealed that there are 105 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at over \$366M, and there are 103 critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$103M.

Expanding to a 2500M HAZMAT risk zone reveals that there are 179 critical facilities located in the highway mobile HAZMAT buffer areas valued at over \$538M. There are 182 critical facilities located in the railway mobile HAZMAT buffer area valued at nearly \$508M. A list of specific critical facilities and their associated risk can be found in **Table 6.16** at the end of this section.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in the *MEMA District 8 Region*. Those areas in a primary buffer area at the highest risk, though all areas carry some vulnerability due to variations in condition that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

6.6 CONCLUSIONS ON HAZARD VULNERABILITY

The results of this vulnerability assessment are useful in at least three ways:

1. Improving our understanding of the risk associated with the natural hazards in the *MEMA District 8 Region* through better understanding of the complexities and dynamics of risk, how levels of risk can be measured and compared, and the myriad of factors that influence risk. An understanding of these relationships is critical in making balanced and informed decisions on managing the risk.
2. Providing a baseline for policy development and comparison of mitigation alternatives. The data used for this analysis presents a current picture of risk in the *MEMA District 8 Region*. Updating this risk “snapshot” with future data will enable comparison of the changes in risk with time. Baselines of this type can support the objective analysis of policy and program options for risk reduction in the region.
3. Comparing the risk among the natural hazards addressed. The ability to quantify the risk to all these hazards relative to one another helps in a balanced, multi-hazard approach to risk management at each level of governing authority. This ranking provides a systematic framework to compare and prioritize the very disparate natural hazards that are present in the *MEMA District 8 Region*. This final step in the risk assessment provides the necessary information for local officials to craft a mitigation strategy to focus resources on only those hazards that pose the most threat to the *MEMA District 8 Region counties*.

Exposure to hazards can be an indicator of vulnerability. Economic exposure can be identified through locally assessed values for improvements (buildings), and social exposure can be identified by estimating the population exposed to each hazard. This information is especially important for decision-makers to use in planning for evacuation or other public safety related needs.

The types of assets included in these analyses include all building types in the participating jurisdictions. Specific information about the types of assets that are vulnerable to the identified hazards is included in each hazard subsection (for example all building types are considered at risk to the winter storm hazard and commercial, residential, and government owned facilities are at risk to repetitive flooding, etc.).

As noted previously, all existing and future buildings and populations (including critical facilities) are vulnerable to atmospheric hazards including drought, hailstorm, hurricane and tropical storm, lightning, thunderstorm wind, tornado, and winter storm and freeze. Some buildings may be more vulnerable to these hazards based on locations, construction, and building type. **Table**

6.16 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an “X”).

TABLE 6.16: AT-RISK CRITICAL FACILITIES

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood
Covington County Critical Facilities														
City of Collins Fire Dept.	Fire Dept.	Non-burnable	X	X	X	X	X	X	X	X				
Collins City Police Dept.	Police Station	Non-burnable	X	X	X	X	X		X	X			X	
Collins Elementary	School	Non-burnable	X	X	X	X	X		X	X			X	
Collins Middle School	School	Non-burnable	X	X	X	X	X		X	X				
Collins High School	School	Non-burnable	X	X	X	X	X		X	X				
Collins Fire Dept.	Fire Dept.	Non-burnable	X	X	X	X	X		X	X				
Collins Police Station	Police Station	Moderate		X	X	X	X		X	X				
Collins Police Station	Police Station	Moderate		X	X	X	X		X	X				
Collins Maintenance Build.	Gov.	Non-burnable	X	X	X	X	X		X	X			X	
Covington CO Vocational Tech.	School	Non-burnable	X	X	X	X	X		X	X				
Covington CO Alt. School	School	Non-burnable	X	X	X	X	X		X	X				
Covington County Sheriff EOC	Police Dept. EOC	Non-burnable HIGH	X	X	X	X	X	X	X	X			X	
Hopewell Elem. School	School	Non-burnable			X	X	X		X	X				
Lagoon	Utility	Moderate	X	X	X	X	X		X	X				
Water Well 1	Utility	Moderate	X	X	X	X	X		X	X			X	
Water Well 4	Utility	Non-burnable	X	X	X	X	X		X	X				
Mt. Olive Attend. Center	School	Non-burnable	X	X	X	X	X		X	X				
CLEM VFD	Fire Dept.	HIGH			X	X	X		X	X				
Hot Coffee VFD	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Mt. Olive City Police Dept.	Police Station	Non-burnable	X	X	X	X	X		X	X				
East Covington VFD	Fire Dept.	Moderate			X	X	X		X	X				
Seminary Attend. Center	School	Non-burnable		X	X	X	X		X	X				
Seminary Baptist Kinder.	School	Non-burnable		X	X	X	X		X	X				
Seminary Town Police Dept	Police Station	Non-burnable		X	X	X	X		X	X				
Southwest Covington VFD	Fire Station	VERY HIGH	X	X	X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility	Facility Type	WHP	Fixed HAZMAT 500-2500M	Mobile HAZMAT 500-2500M	Drought	Thunder -storm,	Hurricane /Tropical	Tornado	Winter Storm &	Earth-	Land-slide	Dam & Levee	100-Year	500-Year

SECTION 6: VULNERABILITY ASSESSMENT

Name		Hazard	Roads & Rails	Roads & Rails		Lightning, & Hail	Storm		Freeze	quake		Failure	Flood	Flood
Forrest County Critical Facilities														
Brooklyn Utility Association	Utility	VERY HIGH		X	X	X	X		X	X				
Brooklyn VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Forrest CO Ag. HS/ library/ Safe Room	School	Non-burnable		X	X	X	X		X	X				
Forrest CO Dist. 5 Barn	Service/ Repair	Non-burnable		X	X	X	X		X	X				
Janice VFD	Fire Station	HIGH			X	X	X		X	X				
South Forrest Attend. Center/ Safe Room	School	Non-burnable		X	X	X	X		X	X				
9 th Grade Academy- HHS	School	Non-burnable		X	X	X	X		X	X				
AAA Ambulance Service	Medical	Non-burnable	X	X	X	X	X		X	X				
Alpha Christian Sch.	School	Non-burnable	X	X	X	X	X		X	X				
Bedford Care Center	Care Facility	Non-burnable	X	X	X	X	X		X	X				
Blair Center Hattiesburg High	School	Non-burnable	X	X	X	X	X		X	X				
Bobby L. Chain Airport	Airport	Non-burnable	X	X	X	X	X		X	X				
Burney Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Camp Shelby	Military	Non-burnable	X	X	X	X	X		X	X				
Central Baptist School	School	Non-burnable	X	X	X	X	X		X	X				
City of Hattiesburg	Utility (water)	Non-burnable	X	X	X	X	X		X	X				X
City of Hattiesburg	Govt.	Non-burnable	X	X	X	X	X		X	X				
City of Hattiesburg- Clean Earth	Utility (energy)	Non-burnable	X	X	X	X	X		X	X				X
	HAZ-MAT	HIGH		X	X	X	X		X	X				
Department of Human Services	Govt.	Non-burnable	X	X	X	X	X		X	X				
Dixie Attend. Center Safe Room	School	HIGH		X	X	X	X		X	X				
Dixie Comm. Utility Assos.	Utility (water)	Non-burnable		X	X	X	X		X	X				
Dixie VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Earl Travillion Attend. Center	School	HIGH	X	X	X	X	X		X	X				
Earl Travillion Elementary	School	HIGH	X	X	X	X	X		X	X				
Entex Gas Pipeline Sta.	Energy Facility	Non-burnable	X	X	X	X	X		X	X				
FEMA Comm. Shelter	Educ.	Non-Burnable	X	X	X	X	X		X	X				
			Other			Atmospheric				Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads &	Mobile HAZMAT 500-2500M Roads &	Drought	Thunder -storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

Forrest County Critical Facilities Continued														
Forrest CO Circuit Court	Govt./ Court	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Circuit Courthouse	Govt./ Court	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Coroner's Off.	Emerg. Service	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO District 1 Barn	Service/ Repair	HIGH		X	X	X	X		X	X				
Forrest CO District 2 Barn	Service/ Repair	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO District 2 Central Shop	Service/ Repair	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Eval. Center	Govt. EMS	Low		X	X	X	X		X	X				
Forrest CO Health Dept.	Care Facility	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Juvenile Deten. Center	Police Detent. Center	Non-Burnable	X	X	X	X	X		X	X			X	
Forrest CO Justice Court	Govt./ Court	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Multi-Purpose Center	Govt. Facility	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Schools	Admin Offices	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Sheriff	Police Station	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Sheriff's Dept.	Police Station	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Sheriff's Service Center	Repair/ Service (Police)	Non-burnable	X	X	X	X	X		X	X				
Forrest General Hospital	Care Facility	HIGH	X	X	X	X	X		X	X				
Forrest CO District 4 Barn	Service/ Repair	Non-burnable		X	X	X	X		X	X				
Glendale Utility District	Utility (Water)	Non-burnable	X	X	X	X	X		X	X				
Grace Christian Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Clinic	Care Facility	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Convalescent Center	Care Facility	Non-burnable	X	X	X	X	X	X	X	X				
Hattiesburg Fire Dept.	Fire Station	Moderate	X	X	X	X	X		X	X				
Hattiesburg Fire Dept. #1	Fire Station	Moderate	X	X	X	X	X		X	X				
Hattiesburg Fire Dept. #3	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Fire Dept. #4	Fire Station	Non-burnable	X	X	X	X	X		X	X			X	
Hattiesburg Fire Dept. #5	Fire Station	Moderate	X	X	X	X	X		X	X				
Hattiesburg Fire Dep #6	Fire Station	Non-burnable	X	X	X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZ MAT 500-2500M Roads & Rails	Mobile HAZ MAT 500-2500M Roads & Rails	Drought	Thunder -storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

Forrest County Critical Facilities Continued

Hattiesburg Fire Dep#7	Fire Station	Low	X	X	X	X	X		X	X				
Hattiesburg Fire Dep #8	Fire Station	Non-burnable		X	X	X	X		X	X				
Hattiesburg High School	School	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Med. Supply	EMS center	Non-burnable		X	X	X	X		X	X				
Hattiesburg Police Chief	Police	Non-burnable			X	X	X		X	X				
Hattiesburg Police Dept.	Police Station	Non-burnable	X	X	X	X	X	X	X	X			X	
Hawkins Elem. School	School	Moderate	X	X	X	X	X		X	X			X	
Jessie L. Brown Tax Services	Emer. Service Center	Non-burnable	X	X	X	X	X		X	X				
Lillie Burney Elementary	School	Non-burnable	X	X	X	X	X		X	X				
Loyalton of Hattiesburg	Nursing Home	Non-burnable		X	X	X	X		X	X				
Mary Bethune Alternative	School	Non-burnable	X	X	X	X	X		X	X				
McLaurin VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
McLaurin/ Dantzler VFD Station #2	Fire Station	HIGH			X	X	X		X	X				
Merit Health Medical Group	Care Facility	Non-burnable		X	X	X	X		X	X				
Mississippi Power	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Mississippi Power CO	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Monroe Hall, LLC- Bedford Care Center	Nursing Home	Non-burnable	X	X	X	X	X		X	X				
Montessori Children's House	School	Non-burnable	X	X	X	X	X		X	X				
N R Burger Middle School	School	HIGH	X	X	X	X	X		X	X				
North Forrest Attend. Center	School	Moderate		X	X	X	X		X	X				
North Forrest Elementary & Safe Room	School	Moderate		X	X	X	X		X	X				
North Forrest High School & Safe Room	School	Moderate		X	X	X	X		X	X				
North Forrest VFD	Fire Station	HIGH	X	X	X	X	X		X	X				
North Forrest VFD Station 1	Fire Station	HIGH	X	X	X	X	X		X	X				
North Forrest VFD Station #2	Fire Station	HIGH		X	X	X	X		X	X				
Old Federal Building	City Court	Non-burnable	X	X	X	X	X		X	X				
Paul B. Johnson State Park	Other critical facility	HIGH		X	X	X	X		X	X				

Other

Atmospheric

Geologic

Hydrologic

Facility Name	Facility Type	WHP Hazard	Fixed HAZ MAT 500-2500M Roads & Rails	Mobile HAZ MAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood
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Forrest County Critical Facilities Continued

Presbyterian Christian Sch.	School	Low		X	X	X	X	X	X	X				
Rawls Springs Attend. Center	School	HIGH	X	X	X	X	X		X	X				X
Rawls Springs Utility District	Waste Water	Low	X	X	X	X	X		X	X			X	
Rawls Springs VFD	Fire Station	Moderate		X	X	X	X		X	X				
Resinall MS Inc.	HAZ-MAT	Moderate	X	X	X	X	X		X	X				
Rowan Elem. School	School	Non-burnable		X	X	X	X		X	X				
Sacred Heart Sch. & Library	School	Non-burnable	X	X	X	X	X		X	X				
Sam's Club #6503	Retail	Non-burnable		X	X	X	X		X	X				
South MS Chapter of the American Red Cross	Emerg. Service in a Disaster	Non-burnable	X	X	X	X	X		X	X				
South MS Electric Power Association	Utility/Power	Non-burnable		X	X	X	X		X	X				
Southeast MS Rural Health Initiative, Inc.	Care Facility	HIGH	X	X	X	X	X		X	X				
Southern Bone & Joint Specialists	Care Facility	Non-burnable		X	X	X	X		X	X				
Spire Energy	Utility/Energy	Non-burnable	X	X	X	X	X		X	X				
Thames Elem. School	School	HIGH	X	X	X	X	X		X	X				
The Emerg. Manag. District	EMS Center	Moderate		X	X	X	X	X	X	X				
U.S. Postal Service	Govt.	HIGH	X	X	X	X	X		X	X				
U.S. Postal Service	Govt.	Non-burnable	X	X	X	X	X		X	X				
University of Southern MS	College	Non-burnable	X	X	X	X	X		X	X				
University of Southern MS Public Safety	College Police Station	Non-burnable	X	X	X	X	X		X	X				
USM Physical Plant	Critical Facility	Non-burnable	X	X	X	X	X		X	X				
Walmart Supercenter #2717	Retail	Non-burnable		X	X	X	X		X	X				
Walmart Supercenter #916	Retail	Non-burnable		X	X	X	X		X	X				
Woodley Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Carnes VFD	Fire Dept	Low			X	X	X		X	X				
Carnes VFD Rescue	Fire Dept.	Low			X	X	X		X	X				
Barrontown Utility District	Utility (Water)	Low			X	X	X		X	X				
Bedford Care Center of Petal	Nursing Home	HIGH	X	X	X	X	X		X	X				X

Other

Atmospheric

Geologic

Hydrologic

Facility Name

Facility Type

WHP Hazard

Fixed HAZ MAT
500-2500M
Roads & RailsMobile HAZ MAT
500-2500M
Roads & Rails

Drought

Thunder -storm,
Lightning,
& HailHurricane
/Tropical
Storm

Tornado

Winter
Storm
&
Freeze

Earth-quake

Land-slide

Dam &
Levee
Failure100-
Year
Flood500-
Year
Flood

Forrest County Critical Facilities Continued

Diversified CPC	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Dixie Electric Power Assoc.	Energy/ Utility	Moderate			X	X	X		X	X				
Dixie Pipeline Company	Transport	Non-burnable	X	X	X	X	X		X	X				X
Eastabuchie Utility Assoc.	Utility (Water)	Non-burnable		X	X	X	X		X	X				
Enterprise Products Operating LP	HAZ-MAT Facility	Non-burnable	X	X	X	X	X		X	X			X	
Forrest County District 3 Barn	Service/ Repair	Low			X	X	X		X	X				
Lone Star NGL	HAZ-MAT	Non-burnable	X	X	X	X	X		X	X			X	
Macedonia VFD	Fire Station	Low			X	X	X		X	X				
Macedonia VFD Station #2	Fire Station	HIGH			X	X	X		X	X				
Macedonia VFD Station #3	Fire Station	Non-burnable		X	X	X	X		X	X				
Mid Coast Energy (Enbridge Petroleum)	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Petal City Hall	City Hall	Non-burnable	X	X	X	X	X		X	X				
Petal City Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Petal City Public Works Dept.	Govt.	Moderate	X	X	X	X	X		X	X			X	
Petal Civic Center	Emerg. Shelter	Non-burnable	X	X	X	X	X		X	X				
Petal Elem. School	School	Non-burnable			X	X	X		X	X				
Petal Fire Department	Fire Station	Moderate	X	X	X	X	X	X	X	X				
Petal Fire Station #1	Fire Station	Moderate	X	X	X	X	X	X	X	X				
Petal Fire Station #2	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Petal Fire Station #3	Fire Station	Non-burnable			X	X	X		X	X				
Petal Gas Storage	Utility Care	Non-burnable	X	X	X	X	X		X	X				
Petal High School & Safe Room	School	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X		X	X			X	
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X		X	X			X	
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH	X		X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X	X	X	X				X
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X	X	X	X				

Other

Atmospheric

Geologic

Hydrologic

Facility Name

Facility Type

WHP Hazard

Fixed HAZMAT 500-2500M Roads & Rails

Mobile HAZMAT 500-2500M Roads & Rails

Drought

Thunder-storm, Lightning, & Hail

Hurricane /Tropical Storm

Tornado

Winter Storm & Freeze

Earth-quake

Land-slide

Dam & Levee Failure

100-Year Flood

500-Year Flood

Forrest County Critical Facilities Continued

[illegible]

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder -storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

Forrest County Critical Facilities Continued

Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable		X	X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Middle School & Safe Room	School	Non-burnable	X	X	X	X	X	X	X	X				
Petal Plant A-Water Well	Utility	HIGH	X	X	X	X	X		X	X				
Petal Plant B-Water Well	Utility	Non-burnable	X	X	X	X	X	X	X	X				
Petal Plant C-Water Well & Tank	Utility	Moderate			X	X	X		X	X				
Petal Police Department	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Petal Post Office	Govt.	Non-burnable	X	X	X	X	X	X	X	X				
Petal Primary School & Safe Room	School	Low			X	X	X		X	X				
Petal St. Pipe (Plants A & B)	Utility	HIGH	X	X	X	X	X		X	X				
Petal Upper Elem. School & Safe Room	School	Moderate			X	X	X		X	X				
Runnelstown Elem. School	School	HIGH		X	X	X	X		X	X				
Sunrise Utility	Utility	Non-burnable			X	X	X		X	X				
Sunrise VFD	Fire Station	Non-burnable			X	X	X		X	X				
Sunrise VFD Station #2	Fire Station	HIGH			X	X	X		X	X				

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads &	Mobile HAZMAT 500-2500M Roads &	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

			Rails	Rails										
Forrest County Critical Facilities Continued														
Targa	HAZ-MAT	Non-burnable	X	X	X	X	X		X	X			X	
W L Smith	School	Moderate	X	X	X	X	X		X	X				
Walmart Supercenter #887	Retail	Non-burnable			X	X	X		X	X			X	

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

Greene County Critical Facilities

Greene CO Circuit Court	Govt.				X	X	X	X	X	X				
Greene CO Chancery Court	Govt.				X	X	X	X	X	X				
Greene CO Sheriff's Dept.	Police Station				X	X	X	X	X	X				
Greene CO Correctional Facility	Police Facility				X	X	X	X	X	X				
Greene CO Emerg. Manag.	EOC				X	X	X	X	X	X				
Greene CO Beat IV VFD	Fire Station				X	X	X	X	X	X				
Greene CO Justice Court	Govt.				X	X	X	X	X	X				
Greene CO Courthouse	Govt.				X	X	X	X	X	X				
Greene CO Rural Health	Nursing Home				X	X	X	X	X	X				
Greene CO BOS	Govt.				X	X	X	X	X	X				
Greene CO Hospital	Care Facility				X	X	X	X	X	X				
Greene Co. High School	School				X	X	X	X	X	X				
Greene Co. Career & Tech.	School				X	X	X	X	X	X				
Leakesville City Hall	Govt.				X	X	X	X	X	X				
Leakesville Police Dept.	Police Station				X	X	X	X	X	X				
Leakesville VFD	Fire Station				X	X	X	X	X	X				
Leakesville Rehab & Nursing Home	Care Facility				X	X	X	X	X	X				
Leakesville Public Works	Public Works				X	X	X	X	X	X				
Leakesville Comm. Center	Govt.				X	X	X	X	X	X				
Leakesville Elem. School	School				X	X	X	X	X	X				
Leakesville Middle School	School				X	X	X	X	X	X				
Family Medical Clinic	Care Facility				X	X	X	X	X	X				
Leakesville Medical	Care Facility				X	X	X	X	X	X				
Wesley Medical	Care Facility				X	X	X	X	X	X				
McLain City Hall	Govt.				X	X	X	X	X	X				
McLain Police Dept.	Police Station				X	X	X	X	X	X				
McLain Public Works	Public Works				X	X	X	X	X	X				
McLain VFD	Fire Station				X	X	X	X	X	X				
McLain JR. High School	School/ Shelter				X	X	X	X	X	X				

Facility Name	Facility Type	Other			Atmospheric					Geologic		Hydrologic		
		WHP Hazard	Fixed HAZMAT 500-2500M Roads &	Mobile HAZMAT 500-2500M Roads &	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

			Rails	Rails										
Greene County Critical Facilities Continued														
Knobtown VFD	Fire Station				X	X	X	X	X	X				
Turner – Duvall Assisted Living	Care Facility				X	X	X	X	X	X				
Sandhill VFD	Fire Station				X	X	X	X	X	X				
Sandhill VFD #2	Fire Station				X	X	X	X	X	X				
Sandhill Jr. High School	School				X	X	X	X	X	X				
Jonathan VFD	Fire Station				X	X	X	X	X	X				
Neely VFD	Fire Station				X	X	X	X	X	X				
Mt. Pisgah VFD	Fire Station				X	X	X	X	X	X				
Pine Belt Mental Health	Care Facility				X	X	X	X	X	X				
State Line Police Dept.	Police Station				X	X	X	X	X	X				
State Line Public Works	Public Works				X	X	X	X	X	X				
State Line VFD	Fire Station				X	X	X	X	X	X				
State Line Medical	Care Facility				X	X	X	X	X	X				
State Line City Hall	Govt.				X	X	X	X	X	X				

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads &	Mobile HAZMAT 500-2500M Roads &	Drought	Thunder-storm, Lightning,	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

			Rails	Rails		& Hail									
Jefferson Davis County Critical Facilities															
Bassfield Police Dept.	Police Station	Non-burnable			X	X	X		X	X					
Bassfield VFD	Fire Station	Low			X	X	X		X	X					
G W Carver Elem & Safe Room	School	HIGH			X	X	X		X	X					
Good Hope Elem. School	School	Moderate			X	X	X	X	X	X					
Good Hope Fire Dept.	Fire Station	HIGH			X	X	X		X	X					
Jefferson Davis High School	School	HIGH			X	X	X		X	X					
Bassfield Fire Dept.	Fire Station	Non-burnable			X	X	X		X	X					
JDCS Learning Center	School	HIGH			X	X	X		X	X					
Jeff Davis CO VO Tech. & SR	School	HIGH			X	X	X		X	X					
Red House Fire Dept.	Fire Station	HIGH			X	X	X		X	X					
Oakvale VFD/ Society Hill	Fire Station	Non-burnable			X	X	X		X	X					
Clem VFD/ Williamson Mill	Fire Station	HIGH			X	X	X		X	X					
Granby Fire Dept.	Fire Station	Moderate			X	X	X		X	X					
HWY 84 West Fire Station Inc	Fire Dept.	HIGH		X	X	X	X		X	X					
HWY 84 West Fire Station	Fire Station	Low			X	X	X		X	X					
J E Johnson Elem & Safe Room	School	HIGH		X	X	X	X	X	X	X					
J E Johnson Head Start	School	HIGH		X	X	X	X	X	X	X					
Jefferson Davis CO Admin. Build.	Govt.	Non-burnable		X	X	X	X		X	X					
Jefferson Davis CO Courthouse	Govt.	Non-burnable		X	X	X	X		X	X					
Jefferson Davis CO EMA	EOC	Non-burnable		X	X	X	X	X	X	X					
Jefferson Davis CO Sheriff's Office	Police Dept.	Non-burnable		X	X	X	X		X	X					
MS Dept. of Corrections	Prison	Non-burnable		X	X	X	X		X	X					
Prentiss Christian Sch. & Safe Room	School	Moderate		X	X	X	X	X	X	X					
Prentiss City Hall	City Hall	Non-burnable		X	X	X	X	X	X	X					
Prentiss Fire Dept.	Fire Station	Non-burnable		X	X	X	X	X	X	X					
Prentiss Institute	Safe Room	Non-burnable		X	X	X	X		X	X					
Prentiss Reg. Hospital	Care Facility	HIGH		X	X	X	X	X	X	X					
		Other			Atmospheric						Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder -storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood	

Jefferson Davis County Critical Facilities Continued

Prentiss Reg. Extended Care	Care Facility	Non-burnable		X	X	X	X	X	X	X				
Prentiss Senior High School	School	Non-burnable		X	X	X	X	X	X	X				
Prentiss Fire/Police Dept.	Fire/Police Station	HIGH		X	X	X	X		X	X				
New Medinah Islamic School	School	Moderate			X	X	X		X	X				

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

Jones County Critical Facilities

Adult Deten. Facility	Deten. Facility	Non-burnable		X	X	X	X		X	X				
Beat 4 Barn	Public Works	LOW		X	X	X	X		X	X				
City Hall	Govt.	Non-burnable		X	X	X	X		X	X				
Court House District 1	Govt.	Non-burnable		X	X	X	X		X	X				
Ellisville Fire Department	Fire Station	Non-burnable		X	X	X	X		X	X				
Ellisville Lower Elem.	School	Non-burnable		X	X	X	X		X	X				
Ellisville Police Dept	Police Station	Non-burnable		X	X	X	X		X	X				
Ellisville State School	School	Non-burnable		X	X	X	X		X	X			X	
Fire Station #1	Fire Station	Non-burnable		X	X	X	X		X	X				
Fire Station #2	Fire Station	Non-burnable		X	X	X	X		X	X			X	
Fire Station #3	Fire Station	HIGH		X	X	X	X		X	X				
Johnson VFD	Fire Station	LOW		X	X	X	X		X	X				
Juvenile Deten. Facility	Deten. Facility	Non-burnable		X	X	X	X		X	X				
Maintenance Building (county wide)	Public Works	Non-burnable		X	X	X	X		X	X				
Police Department	Police Station	Non-burnable		X	X	X	X		X	X				
Public Works	Govt.	HIGH		X	X	X	X		X	X			X	
Public Works	Govt.	LOW		X	X	X	X	X	X	X				
Public Works	Govt.	Moderate		X	X	X	X	X	X	X				
Public Works	Govt.	Non-burnable		X	X	X	X		X	X				
Public Works	Govt.	VERY LOW		X	X	X	X		X	X				
South Jones Elem. School	School	LOW		X	X	X	X		X	X			X	
South Jones High School	School	Non-burnable		X	X	X	X	X	X	X				
South Jones VFD	Fire Station	LOW			X	X	X		X	X				
Southwest Jones VFD	Fire Station	LOW			X	X	X		X	X				
A P Fathree Voc. Tech	School	Moderate	X	X	X	X	X		X	X				
Beat 1 Barn	Public Works	HIGH			X	X	X		X	X				
Beat 3 Barn	Public Works	Non-burnable		X	X	X	X		X	X				
Beat 5 Barn	Public Works	Non-burnable	X	X	X	X	X	X	X	X				
Calhoun VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Court House District 2	Govt.	Non-burnable	X	X	X	X	X	X	X	X				

Other

Atmospheric

Geologic

Hydrologic

Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood
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Jones County Critical Facilities Continued

East Jones Elem. School	School	HIGH	X	X	X	X	X		X	X				
EOC	EOC	Non-burnable	X	X	X	X	X	X	X	X				X
Fire Dept Station #1	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Fire Dept Station #2	Fire Station	HIGH	X	X	X	X	X		X	X				
Fire Dept Station #4	Fire Station	Non-burnable	X	X	X	X	X		X	X			X	
Fire Dept Station #5	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Fire Dept Station #6	Fire Station	LOW	X	X	X	X	X		X	X				
Hesler-Noble Field	General Aviation	LOW	X	X	X	X	X		X	X				
Glade Elem. School	School	LOW			X	X	X		X	X				
Glade VFD	Fire Station	Moderate			X	X	X		X	X				
Immaculate Conception School	School	Non-burnable	X	X	X	X	X		X	X				
Jones City Sheriff-Processing	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Jones County Civil Defense	Emer. Facility	Non-burnable	X	X	X	X	X		X	X				
Jones County Sheriff-Records	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Laural Christian School	School	HIGH	X	X	X	X	X		X	X				
Laurel City Hall	Govt.	Non-burnable	X	X	X	X	X	X	X	X				
Laurel City Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				X
Laural Educ. Center	School	LOW	X	X	X	X	X		X	X				
Laurel Fire Department	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Laural High School	School	Non-burnable	X	X	X	X	X		X	X				
Laural HS VOC Complex	School	Non-burnable	X	X	X	X	X		X	X				
M & M VFD	Fire Station	Non-burnable			X	X	X		X	X				
Mason Elem. School	School	LOW	X	X	X	X	X		X	X				
Nora Davis Magnet School	School	Non-burnable	X	X	X	X	X	X	X	X				
Northeast Jones HS	School	HIGH	X	X	X	X	X		X	X				
Oak Park Elem. School	School	Non-burnable	X	X	X	X	X	X	X	X				
Pine Belt Educ. Center	School	Non-burnable	X	X	X	X	X		X	X				
Pleasant Ridge VFD	Fire Station	HIGH		X	X	X	X		X	X				

Other

Atmospheric

Geologic

Hydrologic

Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood
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Jones County Critical Facilities Continued

Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				X
Powers VFD	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Public Works Facility	Govt.	LOW	X	X	X	X	X		X	X				
R H Watkins High School	School	Non-burnable	X	X	X	X	X		X	X				
Rushton VFD	Fire Station	HIGH			X	X	X		X	X				
Safe Room / Shelter	Safe Room	Moderate	X	X	X	X	X	X	X	X				
Sewer Department	Waste-water	Moderate	X	X	X	X	X		X	X			X	
Sewer Department	Waste-water	Moderate	X	X	X	X	X		X	X			X	
Shady Grove Elem. School	School	HIGH		X	X	X	X		X	X				
Shady Grove VFD	Fire Station	HIGH			X	X	X		X	X				
Shady Grove VFD	Fire Station	HIGH			X	X	X		X	X				
Sharon Elem. School	School	Non-burnable			X	X	X		X	X				
Sharon VFD	Fire Station	HIGH			X	X	X		X	X				
Sheriff's Department	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
South Central Regional Medical Center	Care Facility	Non-burnable	X	X	X	X	X		X	X				
ST Johns Day School	School	Non-burnable	X	X	X	X	X		X	X				
Stainton Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Stewart Jones Middle School	School	Non-burnable	X	X	X	X	X		X	X			X	
The Star Reach Center	School	LOW	X	X	X	X	X		X	X				
Water Department	Public Works	Non-burnable	X	X	X	X	X	X	X	X				X
Water Department	Public Works	Non-burnable	X	X	X	X	X	X	X	X				X
Water Department	Public Works	Non-burnable	X	X	X	X	X	X	X	X				X
West Jones Elem. School	School	Non-burnable		X	X	X	X		X	X				
West Jones High School	School	Moderate		X	X	X	X		X	X				
Moselle Elem. School	School	HIGH		X	X	X	X		X	X				
Moselle VFD	Fire Station	HIGH		X	X	X	X		X	X				
Southwest Jones VFD	Fire Station	HIGH			X	X	X		X	X				
Union VFD	Fire Station	HIGH		X	X	X	X		X	X				
Ovett VFD	Fire Station	Moderate			X	X	X		X	X				
Police Dept	Police Station	Non-burnable		X	X	X	X		X	X				

Other

Atmospheric

Geologic

Hydrologic

Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood
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Jones County Critical Facilities Continued

Sandersville VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Beat 2 Barn	Public Works	HIGH			X	X	X		X	X				
Hebron VFD	Fire Station	LOW		X	X	X	X		X	X				
Soso Police Dept	Police Station	Non-burnable	X	X	X	X	X		X	X				X
Soso VFD	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M	Mobile HAZMAT 500-2500M	Drought	Thunder-storm, Lightning,	Hurricane /Tropical Storm	Tornado	Winter Storm &	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

			Roads & Rails	Roads & Rails		& Hail			Freeze					
Marion County Critical Facilities														
Columbia Academy	School	Non-burnable		X	X	X	X		X	X				
Columbia Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Columbia Fire Department	Fire Station	Moderate	X	X	X	X	X		X	X			X	
Columbia High School	School	Non-burnable	X	X	X	X	X		X	X				X
Columbia Police Dept	Police Station	Non-burnable	X	X	X	X	X		X	X			X	
Columbia Police Investigator	Police Station	Moderate	X	X	X	X	X		X	X			X	
Columbia Primary Sch.	School	Non-burnable	X	X	X	X	X	X	X	X				
East Columbia High School	School	Non-burnable		X	X	X	X		X	X				
East Marion Elem. School	School	Moderate		X	X	X	X		X	X				
East Marion High School	School	Moderate		X	X	X	X		X	X				
East Marion Primary Sch.	School	Moderate		X	X	X	X		X	X				
Jefferson Middle School	School	Non-burnable	X	X	X	X	X	X	X	X				
Marion CO VOC Complex	School	Non-burnable		X	X	X	X		X	X				
Marion County Civil Defense	Emer. Facility	HIGH			X	X	X		X	X				
Marion County Sheriff Dept	Police Station	Non-burnable	X	X	X	X	X		X	X				
Marion General Hospital	Care Facility	Non-burnable		X	X	X	X	X	X	X				
Pine Burr VFD	Fire Station	VERY HIGH			X	X	X		X	X				
Tri-Community VFD	Fire Station	HIGH			X	X	X		X	X				
Southwest Marion VFD	Fire Station	LOW			X	X	X		X	X				
Southwest Marion VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
West Marion Elementary	School	Non-burnable		X	X	X	X		X	X				
West Marion High School	School	Non-burnable		X	X	X	X		X	X				
West Marion Junior High	School	Non-burnable		X	X	X	X		X	X				
West Marion Primary	School	Non-burnable		X	X	X	X		X	X			X	
Southwest Marion VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Southwest Marion VFD	Fire Station	VERY HIGH			X	X	X		X	X				

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

Perry County Critical Facilities

Beaumont Elem. School	School	HIGH	X	X	X	X	X	X	X	X				
Beaumont Police Dept	Police Station	LOW	X	X	X	X	X	X	X	X				
Beaumont VFD	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				
Perry CO Alt. School	School	HIGH	X	X	X	X	X		X	X				
New Augusta Elem. School	School	LOW		X	X	X	X		X	X				X
Perry Central High School	School	HIGH		X	X	X	X		X	X				
Perry CO VOC Complex	School	HIGH		X	X	X	X		X	X				
Perry County Sheriff's Dept	Police Station	Non-burnable		X	X	X	X		X	X				X
Town of New Augusta VFD	Fire Station	HIGH		X	X	X	X		X	X				
Perry CO General Hospital	Care Facility	Non-burnable	X		X	X	X		X	X				
Richton Elem. School	School	Non-burnable	X		X	X	X		X	X				
Richton High School	School	Non-burnable	X		X	X	X		X	X				
Richton Police Dept	Police Station	Non-burnable	X		X	X	X	X	X	X				

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

Wayne County Critical Facilities

Buckatunna Elem. School	School	HIGH		X	X	X	X		X	X				
Beat Four Elem. School	School	HIGH		X	X	X	X		X	X				
Clara Elem. School	School	Very Low			X	X	X		X	X				
Wayne Academy	School	Low		X	X	X	X		X	X				
Wayne CO VOC Complex	School	Non-burnable	X	X	X	X	X	X	X	X				
Wayne CO Alternative School	School	Non-burnable	X	X	X	X	X	X	X	X				
Wayne County Civil Defense	Emer. Facility	Non-burnable	X	X	X	X	X	X	X	X				
Wayne County High School	School	Low		X	X	X	X	X	X	X				
Wayne County Sheriff	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Wayne County VFD	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				
Wayne General Hospital	Care Facility	Non-burnable	X	X	X	X	X		X	X				
Waynesboro Elem. School	School	Non-burnable		X	X	X	X	X	X	X				
Waynesboro Fire Dept.	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				
Waynesboro Middle School	School	Low	X	X	X	X	X		X	X				
Waynesboro Police Clerk	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Waynesboro Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				

SECTION 7

CAPABILITY ASSESSMENT

This section of the Plan discusses the capability of the *MEMA District 8 Region* to implement hazard mitigation activities. It consists of the following four subsections:

- ✦ 7.1 What is a Capability Assessment?
 - ✦ 7.2 Conducting the Capability Assessment
 - ✦ 7.3 Capability Assessment Findings
 - ✦ 7.4 Linking the Capability Assessment
-

7.1 WHAT IS A CAPABILITY ASSESSMENT

The purpose of conducting a capability assessment is to determine the ability of a local jurisdiction to implement a comprehensive mitigation strategy and to identify potential opportunities for establishing or enhancing specific mitigation policies, programs, or projects. As in any planning process, it is important to try to establish which goals, objectives, and/or actions are feasible based on an understanding of the organizational capacity of those agencies or departments tasked with their implementation. A capability assessment helps to determine which mitigation actions are practical, and likely to be implemented over time, given a local government's planning and regulatory framework, level of administrative and technical support, amount of fiscal resources, and current political climate.

A capability assessment has two primary components: 1) an inventory of a local jurisdiction's relevant plans, ordinances, or programs already in place and 2) an analysis of its capacity to carry them out. Careful examination of local capabilities will detect any existing gaps, shortfalls, or weaknesses with ongoing government activities that could hinder proposed mitigation activities and possibly exacerbate community hazard vulnerability. A capability assessment also highlights the positive mitigation measures already in place or being implemented at the local government level, which should continue to be supported and enhanced through future mitigation efforts.

The capability assessment completed for the *MEMA District 8 Region* serves as a critical planning step and an integral part of the foundation for designing an effective hazard mitigation strategy. Coupled with the Risk Assessment, the Capability Assessment helps identify and target meaningful mitigation actions for incorporation in the Mitigation Strategy portion of the Hazard Mitigation Plan. It not only helps establish the goals and objectives for the region to pursue under this Plan, but it also ensures that those goals and objectives are realistically achievable under given local conditions.

7.2 CONDUCTING THE CAPABILITY ASSESSMENT

In order to facilitate the inventory and analysis of local government capabilities within the *MEMA District 8 counties*, each participating jurisdiction took part in a mini workshop to go over any updates or changes from the previous capability assessment. Discussions in the mini workshop focused on a variety of capability indicators, such as existing local plans, policies, programs, or ordinances that contribute to and/or hinder the region's ability to implement hazard mitigation actions. Other indicators included information related to the region's fiscal, administrative, and technical capabilities, such as access to local budgetary and personnel resources for mitigation purposes. The current political climate, an important consideration for any local planning or decision-making process, was also evaluated with respect to hazard mitigation.

At a minimum, discussion results provide an extensive inventory of existing local plans, ordinances, programs, and resources that are in place or under development in addition to their overall effect on hazard loss reduction. However, results can also serve to identify gaps, weaknesses, or conflicts that counties and local jurisdictions can recast as opportunities for specific actions to be proposed as part of the hazard mitigation strategy.

7.3 CAPABILITY ASSESSMENT FINDINGS

The findings of the capability assessment are summarized in this Plan to provide insight into the relevant capacity of the *MEMA District 8 Region* to implement hazard mitigation activities.

7.3.1 Planning and Regulatory Capability

Planning and regulatory capability is based on the implementation of plans, ordinances, and programs that demonstrate a local jurisdiction’s commitment to guiding and managing growth, development, and redevelopment in a responsible manner while maintaining the general welfare of the community. It includes emergency response and mitigation planning, comprehensive land use planning, and transportation planning; the enforcement of zoning or subdivision ordinances and building codes that regulate how land is developed, and structures are built; as well as protecting environmental, historic, and cultural resources in the community. Although some conflicts can arise, these planning initiatives generally present significant opportunities to integrate hazard mitigation principles and practices into the local decision-making process.

This assessment is designed to provide a general overview of the key planning and regulatory tools and programs that are in place or under development for the *MEMA District 8 Region* along with their potential effect on loss reduction. This information will help identify opportunities to address existing gaps, weaknesses, or conflicts with other initiatives in addition to integrating the implementation of this Plan with existing planning mechanisms where appropriate.

Table 7.1 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for the *MEMA District 8 Region*. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*. A more detailed discussion on the region’s planning and regulatory capability follows.

TABLE 7.1: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

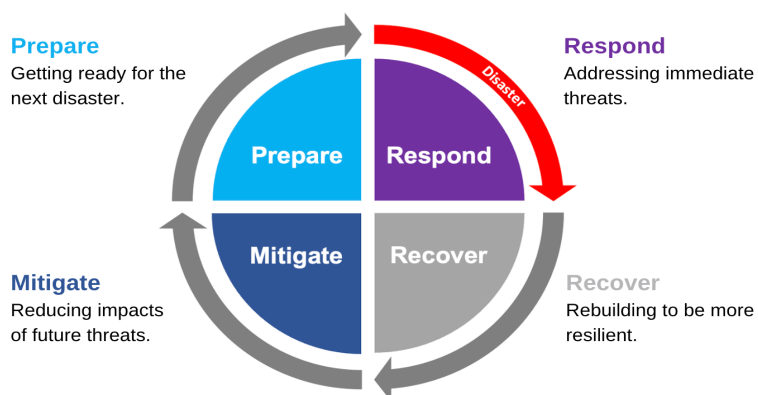
Planning/ Regulatory Tool	Covington County	Forrest County	Green County	Jefferson Davis County	Jones County	Marion County	Perry County	Wayne County
Hazard Mitigation Plan	✓	✓	✓	✓	✓	✓	✓	✓
Comprehensive Land Use Plan								
Floodplain Management Plan								
Open Space Management Plan	✓	✓	✓	✓	✓	✓	✓	✓
Stormwater Management Plan/Ordinance		✓						
National Resource Protection Plan								
Flood Response Plan								
Emergency Operations Plan	✓	✓	✓	✓	✓	✓	✓	✓
Continuity of Operations Plan	✓			✓	✓	✓	✓	✓
Evacuation Plan								✓
Disaster Recovery Plan								
Capital Improvements Plan								
Economic Development Plan	✓	✓	✓	✓	✓	✓	✓	✓
Historic Preservation Plan								
Flood Damage Prevention Ordinance	✓	✓	✓	✓	✓	✓	✓	✓
Zoning Ordinance								
Subdivision Ordinance		✓			✓	✓		
Unified Development Ordinance								
Post-Disaster Redevelopment Ordinance								
Building Codes							✓	✓
Fire Codes								
National Flood Insurance Program (NFIP)	✓	✓	✓	✓	✓	✓	✓	✓
NFIP Community Rating System				✓				

7.3.2 Emergency Management

Hazard mitigation is widely recognized as one of the four primary phases of emergency management. The three other phases include preparedness, response, and recovery. In reality, each phase is interconnected with hazard mitigation, as **Figure 7.1** suggests. Opportunities to reduce potential losses through mitigation practices are most often implemented before disaster strikes, such as the elevation of flood prone structures or the continuous enforcement of policies that prevent and regulate development that is vulnerable to hazards due to its location, design, or other characteristics. Mitigation opportunities will also be presented during immediate preparedness or response activities, such as installing storm shutters in advance of a hurricane, and certainly during the long-term recovery and redevelopment process following a hazard event.

FIGURE 7.1: THE FOUR PHASES OF EMERGENCY MANAGEMENT

4 Phases of Emergency Management



Planning for each phase is a critical part of a comprehensive emergency management program and a key to the successful implementation of hazard mitigation actions. As a result, the Capability Assessment Workshop asked several questions across a range of emergency management plans in order to assess the *MEMA District 8 Region's* willingness to plan and their level of technical planning proficiency.

Hazard Mitigation Plan: A hazard mitigation plan represents a community's blueprint for how it intends to reduce the impact of natural and human-caused hazards on people and the built environment. The essential elements of a hazard mitigation plan include a risk assessment, capability assessment, and mitigation strategy.

- ★ Each of the 8 counties participating in this multi-jurisdictional plan has previously adopted a hazard mitigation plan. Each participating municipality was included in its respective county's plan.

Disaster Recovery Plan: A disaster recovery plan serves to guide the physical, social, environmental, and economic recovery and reconstruction process following a disaster. In many instances, hazard mitigation principles and practices are incorporated into local disaster recovery plans with the intent of capitalizing on opportunities to break the cycle of repetitive disaster losses. Disaster recovery plans can also lead to the preparation of disaster redevelopment policies and ordinances to be enacted following a hazard event.

- ★ None of the counties or municipalities participating in this multi-jurisdictional plan has adopted a disaster recovery plan. The jurisdictions should consider developing a plan to guide the recovery and reconstruction process following a disaster.

Emergency Operations Plan: An emergency operations plan outlines responsibilities and the means by which resources are deployed during and following an emergency or disaster.

- ★ Each of the eight counties participating in this multi-jurisdictional plan maintains a comprehensive emergency management plan through its respective County Emergency Management Agency. Each participating municipality is covered by its respective county's plan.

Continuity of Operations Plan: A continuity of operations plan establishes a chain of command, line of succession, and plans for backup or alternate emergency facilities in case of an extreme emergency or disaster event.

- ★ Covington, Jefferson Davis, Jones, Marion Perry and Wayne Counties have adopted Continuity of Operations plans since that last mitigation plan update.

7.3.3 General Planning

The implementation of hazard mitigation activities often involves agencies and individuals beyond the emergency management profession. Stakeholders may include local planners, public works officials, economic development specialists, and others. In many instances, concurrent local planning efforts will help to achieve or complement hazard mitigation goals, even though they are not designed as such. Therefore, the Capability Assessment Survey also asked questions regarding general planning capabilities and the degree to which hazard mitigation is integrated into other on-going planning efforts in the *MEMA District 8 Region*.

Comprehensive Land Use Plan: A comprehensive land use plan establishes the overall vision for what a community wants to be and serves as a guide for future governmental decision making. Typically, a comprehensive plan contains sections on demographic conditions, land use, transportation elements, and community facilities. Given the broad nature of the plan and its regulatory standing in many communities, the integration of hazard mitigation measures into the comprehensive plan can enhance the likelihood of achieving risk reduction goals, objectives, and actions.

- ✦ None of the counties participating in this multi-jurisdictional plan has adopted comprehensive land use plans.
- ✦ Several of the participating municipalities adopted community development and comprehensive plans in the 1970s, including Mount Olive, Bassfield, Prentiss, Ellisville, Laurel, Columbia, New Augusta, Hattiesburg, Petal, and Richton.
- ✦ The City of Waynesboro adopted a city comprehensive plan in 1998. The Board of Alderman discussed updating or developing a new comprehensive plan.

Capital Improvements Plan: A capital improvements plan guides the scheduling of spending on public improvements. A capital improvements plan can serve as an important mechanism for guiding future development away from identified hazard areas. Limiting public spending in hazardous areas is one of the most effective long-term mitigation actions available to local governments.

- ✦ None of the counties participating in this multi-jurisdictional plan have adopted a capital improvements plan.
- ✦ The Cities of Laurel and Waynesboro are the only participating municipalities with a capital improvement plan in place.

Historic Preservation Plan: A historic preservation plan is intended to preserve historic structures or districts within a community. An often-overlooked aspect of the historic preservation plan is the assessment of buildings and sites located in areas subject to natural hazards and the identification of ways to reduce future damages. This may involve retrofitting or relocation techniques that account for the need to protect buildings that do not meet current building standards or are within a historic district that cannot easily be relocated out of harm's way.

- ✦ None of the counties or municipalities participating in this multi-jurisdictional plan has a historic preservation plan.

Zoning Ordinance: Zoning represents the primary means by which land use is controlled by local governments. As part of a community's police power, zoning is used to protect the public health, safety, and welfare of those in a given jurisdiction that maintains zoning authority. A zoning ordinance is the mechanism through which zoning is typically implemented. Since zoning regulations enable municipal governments to limit the type and density of development, a zoning ordinance can serve as a powerful tool when applied in identified hazard areas.

- ✦ None of the counties participating in this multi-jurisdictional plan has adopted zoning ordinances.
- ✦ Several of the participating municipalities adopted zoning ordinances in the 1970s and 1980s, including Collins, Mount Olive, Bassfield, Prentiss, Ellisville, Laurel, Columbia, New Augusta, Seminary, Hattiesburg, Petal and Richton. Waynesboro also adopted a zoning ordinance more recently in 1998.

Subdivision Ordinance: A subdivision ordinance is intended to regulate the development of residential, commercial, industrial, or other uses, including associated public infrastructure, as land is subdivided into buildable lots for sale or future

development. Subdivision design that accounts for natural hazards can dramatically reduce the exposure of future development.

- ★ Jones County and the Cities of Ellisville and Laurel have each adopted subdivision regulations. **Greene**
- ★ Forrest County and the Cities of Hattiesburg and Petal have each adopted subdivision regulations.
- ★ Marion County adopted rather extensive subdivision regulations in 2005. The City of Columbia also has subdivision regulations that were adopted in 1969 and amended in 1980.
- ★ Several additional participating municipalities adopted subdivision ordinances in the 1960s and 1970s, including Collins, Mount Olive, Bassfield, Prentiss, New Augusta, and Richton. Waynesboro also adopted subdivision regulations concurrently with its zoning ordinance more recently in 1998.

Building Codes, Permitting, and Inspections: Building codes regulate construction standards. In many communities, permits, and inspections are required for new construction. Decisions regarding the adoption of building codes (that account for hazard risk), the type of permitting process required both before and after a disaster, and the enforcement of inspection protocols all affect the level of hazard risk faced by a community.

- ★ Mississippi adopted the 2006 complete family of International Codes (I-Codes) as the minimum codes for its statewide building code in 2011. This means that if a jurisdiction chooses to adopt a code or update their current codes, they must be at a minimum one or more of the 2006 family of I-Codes. Additionally, all state buildings, leased or owned, must meet the requirements set forth in the 1997 Standard Building Code.
- ★ Jones County, Perry County, and Wayne County have adopted building codes.
- ★ The following participating municipalities have also adopted building codes: Collins, Seminary, Bassfield, Prentiss, Ellisville, Laurel, Columbia, Beaumont, New Augusta, Richton, Hattiesburg, Petal, and Waynesboro.

The adoption and enforcement of building codes by local jurisdictions is routinely assessed through the Building Code Effectiveness Grading Schedule (BCEGS) program developed by the Insurance Services Office, Inc. (ISO). In Mississippi, the Mississippi State Rating Bureau assesses the building codes in effect in a particular community and how the community enforces its building codes with special emphasis on mitigation of losses from natural hazards. The results of BCEGS assessments are routinely provided to ISO's member private insurance companies, which in turn may offer ratings credits for new buildings constructed in communities with strong BCEGS classifications. The concept is that communities with well-enforced, up-to-date codes should experience fewer disaster-related losses and, as a result, should have lower insurance rates.

In conducting the assessment, ISO collects information related to personnel qualification and continuing education as well as the number of inspections performed per day. This type of information combined with local building codes is used to determine a grade for that jurisdiction. The grades range from 1 to 10 with a BCEGS grade of 1 representing exemplary commitment to building code enforcement and a grade of 10 indicating less than minimum recognized protection.

7.3.4 Floodplain Management

Flooding represents the greatest natural hazard facing the nation. At the same time, the tools available to reduce the impacts associated with flooding are among the most developed when compared to other hazard-specific mitigation techniques. In addition to approaches that cut across hazards such as education, outreach, and the training of local officials, the National Flood Insurance Program (NFIP) contains specific regulatory measures that enable government officials to determine where and how growth occurs relative to flood hazards. Participation in the NFIP is voluntary for local governments; however, program participation is strongly encouraged by FEMA as a first step for implementing and sustaining an effective hazard mitigation program. It is therefore used as part of this assessment as a key indicator for measuring local capability.

In order for a county or municipality to participate in the NFIP, they must adopt a local flood damage prevention ordinance that requires jurisdictions to follow established minimum building standards in the floodplain. These standards require that all new buildings and substantial improvements to existing buildings will be protected from damage by a 100-year flood event and that new development in the floodplain will not exacerbate existing flood problems or increase damage to other properties.

A key service provided by the NFIP is the mapping of identified flood hazard areas. Once completed, the Flood Insurance Rate Maps (FIRMs) are used to assess flood hazard risk, regulate construction practices, and set flood insurance rates. FIRMs are

an important source of information to educate residents, government officials, and the private sector about the likelihood of flooding in their community.

Table 7.2 provides NFIP policy and claim information for each participating jurisdiction in the *MEMA District 8 Region*. Each of the jurisdictions that are participating in the development of this plan that also participate in the NFIP are committed to maintaining and enforcing their floodplain management ordinances and regulating new development in floodplains.

TABLE 7.2: NFIP POLICY AND CLAIM INFORMATION

Jurisdiction	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments as of 2023
<i>Covington County†</i>	12/15/1990	4/5/2010	63	\$7,483,100	27	\$357,325
<i>Forrest County</i>	12/17/2010	1/19/2021(M)	7	\$762,600	0	\$0
<i>Greene County</i>		11/19/2021				
<i>Jefferson Davis County†</i>	12/17/2010	12/17/2010(M)	7	\$762,100	0	\$0
<i>Jones County</i>	2/16/1990	1/19/2021	133	\$17,174,300	28	\$237,123
<i>Marion County†</i>	9/28/1979	10/18/2019	189	\$29,435,100	248	\$2,337,509
<i>Perry County†</i>	9/1/1987	11/19/2021	86	\$10,072,300	38	\$131,996
<i>Wayne County†</i>	8/16/1988	7/18/2011	44	\$6,960,900	6	\$117,636

† Includes unincorporated areas of county only

* Community does not participate in the NFIP

(M) – No Elevation Determined, All Zone A, C and X

Scope of Work for SDEs Assistance by MEMA' Flood Plain Management Bureau

MEMA's FPM Bureau will assist any community with training and field work to ensure that the damage estimates by the community are compliant with the NFIP. The community must request assistance in writing to the FPM Bureau. After the request is made to the FPM Bureau, the information will be given to the Office of Mitigation Director. The community should be able to estimate the number of structures in the floodplain receiving damage from the event and pass it along to the FPM Bureau. At that point, the FPM Bureau and Office of Mitigation Director will make decisions on deployment. Any community requesting assistance from the FPM Bureau should be willing to have local individuals comprise the SED Teams and run the FEMA SDE program. If the damage is so widespread that the number of requests or the number of structures supersede the capacity of the FPM Bureau, then a meeting with the Office of Mitigation Director and the State NFIP Coordinator to determine the course of action.

Field Deployment Procedure:

- Review of Safety Requirements
- Review of the site
- Review of SDE program
- Review of data collection and evaluation
- Review of data entry
- Review of the data not to be collected on the first survey.
- Review of program with the SDE teams.
- Review Crisis Track
- Data collection is not about speed, but quality.
- Calibration of the SDE Teams (Minimum of three structures).
- Point out differences in residential, non-residential and manufactured home.
- Choose Team leaders and points of contact.
- Data from all inspection teams from the first day should be reviewed. (Point out any issues).
- Data entry.

Equipment for SDE Teams:

- Flood maps for the area (Digital applications on smartphones are available).

- Teams to be comprised of ideally of three-person teams (Minimum is two-person teams).
- Teams should have a local person on each team deployed to the field.
- Maps showing the area to be inspected (maps with addresses, Subdivision lot plats, and/or tax parcels).
- Digital Cameras
- GPS units
- Drone(s)
- Dry erase boards with markers and erasers.
- Safety Equipment (i.e. Boots, bug spray, snake protection, sunscreen, etc.).
- Field inspection forms
- Each team must have a way of communicating with other teams and operations
- Pens and pencils.
- Details list of area to be covered for each day.
- If using tablets, ensure that the equipment is charged and ready to function.
- Paper SDE forms must pack-up the tablets.

SDE Data Entry

Prior to field deploying the MEMA FPM Lead should review Crisis Track and print a report for all structures that have received damage in the Special Flood Hazard Area. The structures that are listed in Crisis Track should be reviewed and have an SDE completed on them. Data entry should be performed by a local person after training on the program. It is best to have a one-point data entry source. Data entry will occur daily after the teams return from the field. FPM Bureau personal will stay with the data entry along with team leaders as the data is entered in the program. After each team filed inspection forms are entered in the program, the team leader can be dismissed. The FPM Bureau person will stay until all entries have been made for the day. The FPM Bureau person will get a printed list of the day's inspections with percent damage to turn into the FPM Bureau Leader. The FPM Team Leader will compile the number of inspection and the percent damage into a report for the Office of Mitigation Director daily. All inspections to be determined between 50 and 60 percent damaged should be reevaluated by different filed teams. The local official should have a computer able to run the SDE software.

If using the tablet to run the software, FPM will export from tablet and import to local FPM computer of choice (may even print the reports for the local FPM. MEMA must retain a copy of the SDE inspections for follow-up of substantial damage.

Field Inspection Teams

SDE Field Inspection Teams should consist of three team members but no less than two members (two members responsible for measuring and one to record the data. All members should make the percent damage assessments.) All data collected must be clearly marked and written on filed inspection forms. Photos of structures should be clear with at least three photos at each location (addresses board, overall structure, water line if flooding, or damage to the structure. The done should be utilized to assist with taking photos of the structure and fully assessing the structure for damage. At every inspection make for sure that you are clearly recognizable and give notice to property owner if applicable by knocking on doors and waiting for a response before proceeding. It is the responsibility of the filed team leader to maintain forms, equipment, and photos, etc. In areas that are still inaccessible, drone(s) should be used to view structures that are damaged and record the water lines.

Follow-up

FPM Specialists will have monthly follow-ups with local FPMs that have substantially damaged structures to ensure compliance within their area.

Community Rating System: An additional indicator of floodplain management capability is the active participation of local jurisdictions in the Community Rating System (CRS). The CRS is an incentive-based program that encourages counties and municipalities to undertake defined flood mitigation activities that go beyond the minimum requirements of the NFIP by adding extra local measures to provide protection from flooding. All of the 18 creditable CRS mitigation activities are assigned a range of point values. As points are accumulated and reach identified thresholds, communities can apply for an improved CRS class rating.

Class ratings, which range from 10 to 1, are tied to flood insurance premium reductions as shown in **Table 7.1**. As class rating improves (the lower the number the better), the percent reduction in flood insurance premiums for NFIP policyholders in that community increases.

TABLE 7.1: CRS PREMIUM DISCOUNTS, BY CLASS

Premium Discount			
Class	Points	SFHA	Non-SFHA
1	4,500	45%	10%
2	4,000	40%	10%
3	3,500	35%	10%
4	3,000	30%	10%
5	2,500	25%	10%
6	2,000	20%	10%
7	1,500	15%	5%
8	1,000	10%	5%
9	500	5%	5%
10		0	0

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Community participation in the CRS is voluntary. Any community that is in full compliance with the rules and regulations of the NFIP may apply to FEMA for a CRS classification better than class 10. The CRS application process has been greatly simplified over the past several years based on community comments. Changes were made with the intent to make the CRS more user-friendly and make extensive technical assistance available for communities who request it.

- ★ Jefferson Davis County and the City of Prentiss participate in the CRS as well as the City of Hattiesburg. Participation in the CRS program should be considered as a mitigation action by the jurisdictions currently participating in the NFIP. The program would be most beneficial to Jones County, the City of Laurel, Marion County, and the City of Columbia, which each have over 100 NFIP policies in force.

Flood Damage Prevention Ordinance: A flood damage prevention ordinance establishes minimum building standards in the floodplain with the intent to minimize public and private losses due to flood conditions.

- ★ All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. All counties and municipalities participating in this hazard mitigation plan, with the exception of Bassfield, Sandersville, and Soso, also participate in the NFIP and they all have adopted flood damage prevention ordinances.

Floodplain Management Plan: A floodplain management plan (or a flood mitigation plan) provides a framework for action regarding corrective and preventative measures to reduce flood-related impacts.

- ★ The City of Hattiesburg is the only participating municipality that has adopted a floodplain management plan to help prevent damages associated with flooding and flood loss.

Open Space Management Plan: An open space management plan is designed to preserve, protect, and restore largely undeveloped lands in their natural state and to expand or connect areas in the public domain such as parks, greenways, and other outdoor recreation areas. In many instances, open space management practices are consistent with the goals of reducing hazard losses, such as the preservation of wetlands or other flood-prone areas in their natural state in perpetuity.

- ★ All of the participating counties or municipalities are included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

Stormwater Management Plan: A stormwater management plan is designed to address flooding associated with stormwater runoff. The stormwater management plan is typically focused on design and construction measures that are intended to reduce the impact of more frequently occurring minor urban flooding.

- ★ Forrest County, Cities of Hattiesburg, Petal and Waynesboro have adopted a stormwater management plan or ordinance.
- ★ The City of Laurel adopted a stormwater detention requirements ordinance in 2000.

7.3.6 Administrative and Technical Capability

The ability of a local government to develop and implement mitigation projects, policies, and programs is directly tied to its ability to direct staff time and resources for that purpose. Administrative capability can be evaluated by determining how mitigation-related activities are assigned to local departments and if there are adequate personnel resources to complete these activities. The degree of intergovernmental coordination among departments will also affect administrative capability for the implementation and success of proposed mitigation activities.

Technical capability can generally be evaluated by assessing the level of knowledge and technical expertise of local government employees, such as personnel skilled in using Geographic Information Systems (GIS) to analyze and assess community hazard vulnerability. The Capability Assessment Survey was used to capture information on administrative and technical capability through the identification of available staff and personnel resources.

Table 7.4 provides a summary of the Capability Assessment Survey results for the MEMA District 8 Region with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE 7.4: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/ Personnel Resource	Covington County	Forest County	Greene County	Jefferson Davis County	Jones County	Marion County	Perry County	Wayne County
Planners with knowledge of land development/land management practices.		✓			✓		✓	
Engineers or professionals trained in construction practices related to buildings and/or infrastructure	✓	✓	✓	✓	✓	✓	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards	✓	✓			✓		✓	✓
Emergency Manager	✓	✓	✓	✓	✓	✓	✓	✓
Floodplain Manager	✓	✓	✓	✓	✓	✓	✓	✓
Land Surveyors		✓					✓	✓
Scientist familiar with the hazards of the community.	✓	✓	✓	✓	✓	✓	✓	✓
Personnel skilled in GIS and/or HAZUS	✓	✓	✓	✓	✓	✓	✓	✓
Resource development staff or grant writers	✓			✓	✓		✓	

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

7.3.7 Fiscal Capability

The ability of a local government to take action is often closely associated with the amount of money available to implement policies and projects. This may take the form of outside grant funding awards or locally-based revenue and financing. The costs associated with mitigation policy and project implementation vary widely. In some cases, policies are tied primarily to staff time or administrative costs associated with the creation and monitoring of a given program. In other cases, direct expenses are linked to an actual project, such as the acquisition of flood-prone homes, which can require a substantial commitment from local, state, and federal funding sources.

The Capability Assessment Survey was used to capture information on the region's fiscal capability through the identification of locally available financial resources.

Table 7.5 provides a summary of the results for the *MEMA District 8 Region* with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plans.

TABLE 7.5: RELEVANT FISCAL RESOURCES

Fiscal Tool/ Resource	Covington County	Forest County	Greene County	Jefferson Davis County	Jones County	Marion County	Perry County	Wayne County
Capital Improvement Program		✓	✓	✓	✓	✓	✓	✓
Community Development Block Grants (CDBG)	✓	✓	✓	✓	✓	✓	✓	✓
Special Purpose Taxes (or taxing districts)								✓
Gas/ Electric Utility Fees								✓
Water/ Sewer Fees								✓
Stormwater Utility Fees								
Development Impact Fees								
General Obligation, Revenue, and/or Special Tax Bonds		✓						✓
Partnering Arrangements or Intergovernmental Agreements	✓	✓	✓	✓	✓	✓	✓	✓

7.3.8 Political Capability

One of the most difficult capabilities to evaluate involves the political will of a jurisdiction to enact meaningful policies and projects designed to reduce the impact of future hazard events. Hazard mitigation may not be a local priority or may conflict with or be seen as an impediment to other goals of the community, such as growth and economic development. Therefore, the local political climate must be considered in designing mitigation strategies as it could be the most difficult hurdle to overcome in accomplishing their adoption and implementation.

The Capability Assessment Workshop was used to capture information on political capability of the MEMA District 8 Region. Previous county-level hazard mitigation plans were reviewed for general examples of local political capability, such as guiding development away from identified hazard areas, restricting public investments or capital improvements within hazard areas, or enforcing local development standards that go beyond minimum state or federal requirements (i.e., building codes, floodplain management, etc.).

- ★ The previous county hazard mitigation plans identified existing ordinances that address natural hazards or are related to hazard mitigation, such as emergency management, comprehensive zoning, subdivision regulations, comprehensive land use plans, and flood zone ordinances.
- ★ During the months immediately following a disaster, local public opinion in the region is more likely to shift in support of hazard mitigation efforts.

7.4 Linking the Capability Assessment with the Risk Assessment and the Mitigation Strategy

The conclusions of the Risk Assessment and Capability Assessment serve as the foundation for the development of a meaningful hazard mitigation strategy. During the process of identifying specific mitigation actions to pursue, the HMC considered not only each jurisdiction's level of hazard risk, but also their existing capability to minimize or eliminate that risk.

SECTION 8

MITIGATION STRATEGY

This section of the Plan provides the blueprint for the participating jurisdictions in the MEMA District 8 Region to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council (RHMC) and the findings and conclusions of the Capability Assessment and Risk Assessment. It consists of the following five subsections:

- ✦ 8.1 Introduction
- ✦ 8.2 Mitigation Goals
- ✦ 8.3 Identification and Analysis of Mitigation Techniques
- ✦ 8.4 Selection of Mitigation Techniques for the MEMA District 8 Region
- ✦ 8.5 Plan Update Requirement

8.1 INTRODUCTION

The intent of the Mitigation Strategy is to provide the communities in the *MEMA District 8 Region* with the goals that will serve as guiding principles for future mitigation policy and project administration, along with an analysis of mitigation techniques deemed available to meet those goals and reduce the impact of identified hazards. It is designed to be comprehensive, strategic, and functional in nature:

- In being comprehensive, the development of the strategy includes a thorough review of all hazards and identifies extensive mitigation measures intended to not only reduce the future impacts of high-risk hazards, but also to help the region achieve compatible economic, environmental, and social goals.
- In being strategic, the development of the strategy ensures that all policies and projects proposed for implementation are consistent with pre-identified, long-term planning goals.
- In being functional, each proposed mitigation action is linked to established priorities and assigned to specific departments or individuals responsible for their implementation with target completion deadlines. When necessary, funding sources are identified that can be used to assist in project implementation.

The **first step** in designing the Mitigation Strategy includes the identification of mitigation goals. Mitigation goals represent broad statements that are achieved through the implementation of more specific mitigation actions. These actions include both hazard mitigation policies (such as the regulation of land in known hazard areas through a local ordinance) and hazard mitigation projects that seek to address specifically targeted hazard risks (such as the acquisition and relocation of a repetitive loss structure).

The **second step** involves the identification, consideration, and analysis of available mitigation measures to help achieve the identified mitigation goals. This is a long-term, continuous process sustained through the development and maintenance of this Plan. Alternative mitigation measures will continue to be considered as future mitigation opportunities are identified, as data and technology improve, as mitigation funding becomes available, and as this Plan is maintained over time.

The **third and last step** in designing the Mitigation Strategy is the selection and prioritization of specific mitigation actions for the communities in the *MEMA District 8 Region* (provided separately in *Section 9: Mitigation Action Plan*). Each county and participating jurisdiction has its own Mitigation Action Plan (MAP) that reflects the needs and concerns of that jurisdiction. The MAP represents an unambiguous and functional plan for action and is considered to be the most essential outcome of the mitigation planning process.

The MAP includes a prioritized listing of proposed hazard mitigation actions (policies and projects) for the *MEMA District 8* counties and jurisdictions to complete. Each action has accompanying information, such as those departments or individuals assigned responsibility for implementation, potential funding sources, and an estimated target date for completion. The MAP provides those departments or individuals responsible for implementing mitigation actions with a clear roadmap that also serves as an important tool for monitoring success or progress over time. The cohesive collection of actions listed in the MAP can also serve as an easily understood menu of mitigation policies and projects for those local decision makers who want to quickly review the recommendations and proposed actions of the *Regional Hazard Mitigation Plan*.

In preparing each *Mitigation Action Plan* for the *MEMA District 8 Region*, officials considered the overall hazard risk and capability to mitigate the effects of hazards as recorded through the risk and capability assessment process, in addition to meeting the adopted mitigation goals and unique needs of the community.

8.1.1 Previous Mitigation Actions

A thorough review of mitigation actions identified in the previous approved plan was conducted to determine the effectiveness of the action and the progress made to date. Each participating jurisdiction was asked to review and update each action to determine if: the action was completed; the strategy is no longer applicable; or it should be moved forward and included in the 2025 Plan Update. The updated status of previous mitigation actions is provided in the individual annex for each of D4's participating counties.

8.1.2 The Mitigation Action Plan

Each participating jurisdiction updated its list of mitigation actions based on the review of its risk assessment and existing capabilities. The actions include community-specific details and are included in each county's detailed mitigation action plan within the Annex section of this plan. The Mitigation Strategy for each Annex includes several changes, including those based on the streamlined list of 2020 Goals and Objectives. The table of action items includes mitigation actions identified in the 2015 plan; the outcome of each; and how the strategy was updated for the 2025 plan; and newly developed mitigation actions.

Previous plans included a large number of mitigation actions considering the size and available resources of some jurisdictions, including those with only a few hundred residents. Some EM Directors have multiple duties and can also function in one or more service roles in their communities. The same is often true for leadership at the city or town level, where those in leadership "wear many hats."

Several changes were made to streamline the Mitigation Strategy given the following considerations:

- Actions identified as falling into the Preparedness Phase of the Emergency Management Cycle were removed and recommended for consideration under Preparedness Planning. Examples of this include disaster preparedness initiatives (such as providing weather radios to residents) and NIMS training, which represent actions a community normally does to prepare for a hazard event

Professional emergency managers and their Emergency Support Functions (ESF) units called up during disaster response, develop specific plans and actions as appropriate for each event phase.

- Actions identified as being required as part of the FEMA Hazard Mitigation Planning Process were removed because these are fully spelled out under the Plan Maintenance section of this RHMP Update. Examples of this include reviewing the mitigation plan and meeting to discuss needed plan updates after a disaster occurs in the community.
- Actions that discussed similar activities were combined into one action. For example, there were previously separate action items for educating the public about natural hazards and for educating the public about manmade (technological, biological, health-related) hazards. A single outreach plan using multiple communications channels can incorporate education about all hazards to all audiences if the outreach plan is fully developed.
- In some instances, extensive description of previous actions was shortened.
- Most action items were identified by all jurisdictions. In these cases, a countywide action was developed that would be jointly implemented by all participating jurisdictions.

8.1.3 Mitigation Action Prioritization

In the previous versions of *MEMA District 8 county plans*, not all actions were prioritized. In addition, there needed to be consistency among the counties and jurisdiction regarding how they prioritized their actions. Therefore, for the *2025 MEMA District 8 Regional plan*, the *RHMC members* were tasked with establishing a priority for each action. Prioritization of the proposed mitigation actions was based on the following six factors:

- Effect on overall risk to life and property
- Ease of implementation
- Political and community support
- A general economic cost/benefit review
- Funding availability
- Continued compliance with the NFIP

The point of contact for each county helped coordinate the prioritization process by reviewing each action and working with the lead agency/department responsible to determine a priority for each action using the six factors listed above.

Using these criteria, actions were classified as high, moderate, or low priority by the participating jurisdiction officials.

High Priority- mitigation actions determined to be the most cost effective and most compatible with the participating jurisdictions' unique needs.

Moderate Priority- mitigation actions determined to be feasible and compatible with the participating jurisdictions' unique needs; however, there may be challenges or difficulty that are expected to arise.

Low Priority- mitigation actions determined to be the least compatible with the participating jurisdictions' unique needs.

During the 2024 planning process, action prioritization was validated and updated as necessary. There were no changes to priorities in the plan since the last update.

8.2 MITIGATION GOALS AND OBJECTIVES

44 CFR Requirement

44 CFR Part 201.6(c)(3)(i): The mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

The primary goal of all local governments is to promote the public health, safety, and welfare of its citizens. In keeping with this standard, the *MEMA District 8 counties* and the participating municipalities have developed five goal statements for local hazard mitigation planning in the region. **Table 8.1** provides a listing of all of the existing mitigation goals from the eight plans that are being combined.

As a result of reviewing the existing goals, five proposed regional goals were presented to the Hazard Mitigation for their consideration. The proposed goals were reviewed, voted on, and accepted by the HMC at their second meeting. This process of combining goals from the previous plans served to highlight the planning process that had occurred in each county prior to joining this regional planning effort. Each goal, purposefully broad in nature, serves to establish parameters that were used in developing more mitigation actions. The *MEMA District 8 Regional Mitigation Goals* are presented in **Table 8.2**. Consistent implementation of actions over time will ensure that community goals are achieved.

TABLE 8.1: EXISTING MITIGATION GOALS AND OBJECTIVES**Goal 1: Protect the health, safety, and welfare of residents and visitors.**

Objective 1.1	Promote mitigation incentives to protect the residents health in safety before and during an event such as safe rooms, storm shelters, weather warning systems, emergency generators...
Objective 1.2	Develop outreach strategies such as pamphlets with hazard and safety information for the vulnerable, underserved populations, and/or tourists.
Objective 1.3	Review policies, procedures, facilities, infrastructure, etc. to seek ways to help mitigation natural hazards so as to reduce losses and negative impacts associated with hazard events.
Objective 1.4	Prioritize mitigation actions/activities for critical facilities, services, and infrastructure.
Objective 1.5	Seek and implement flood control and drainage improvements/measures in flood prone areas to reduce losses and impacts.
Objective 1.6	Balance planning, natural resource management, and land use planning with natural hazard mitigation to protect life, property, and the environment.

Goal 2: Protect existing and future buildings, critical facilities, and infrastructure.

Objective 2.1	Promote actions and mitigation initiatives for continuity of operations in a disaster for critical facilities and infrastructure.
Objective 2.2	Reduce/prevent potential damage to future buildings, critical facilities, and the infrastructure by improving hazard assessment information to make recommendations for encouraging higher standards for safer development in areas vulnerable to natural and technological hazards.
Objective 2.3	Review existing and future buildings and infrastructure as well as current policies and procedures.
Objective 2.4	Encourage the adoption, improvement, and enforcement of local codes, ordinances, and land use planning.
Objective 2.5	Reduce the number of at-risk, repetitive loss, and SRL Properties.

Goal 3: Prevent the destruction of natural, historical, and cultural resources.

Objective 3.1	Reserve, restore, and/or create natural systems to serve as mitigation functions
Objective 3.2	Protect and preserve cultural and historic resources.

Goal 4: Reduce economic losses, including response and recovery costs and disruption of economic activity.

Objective 4.1	Enhance emergency services communications system via interoperability through the statewide MSWIN system.
Objective 4.2	Identify needs and appropriate activities/projects from post disaster damage assessments.
Objective 4.3	Develop and maintain hazard-related research, modeling, data, and analysis to support programs and project implementation to reduce economic costs.

Goal 5: Understand the hazards that threaten the region and the techniques to minimize vulnerability to those hazards.

Objective 5.1	Develop and maintain hazard related data
Objective 5.2	Improve the understanding of hazards and their potential risks through monitoring and assessment of possible mitigation projects at the local, county, and jurisdictional level.
Objective 5.3	Develop and implement education and outreach programs to increase public awareness of the risks associated with natural and technological hazards.

Goal 6: Foster cooperation among the public and private sectors to promote effective hazard mitigation planning and create disaster resistant communities.

Objective 6.1.	Encourage local newspapers and media outlets to run articles and information pieces regarding the potential dangers of natural hazards and the positive impacts of various hazard mitigation actions. The articles and information pieces will address existing and future buildings and infrastructure.
Objective 6.2	Promote the use of existing mitigation and hazard education programs from state, federal, and non-profits sources.
Objective 6.3	Encourage leadership within the public and private sector organizations to prioritize and implement local, county, and region hazard mitigation activities.

Goal 7: Increase public awareness of hazard mitigation and hazard risk.

Objective 7.1

Improve the understanding of hazards and risks, and expand and enhance public education, awareness, and preparedness associated with natural and technological hazards.

Objective 7.2

Develop outreach strategies for the vulnerable, underserved populations, such as tourists, disabled persons, children, non-English speaking, low income, elderly, non-reading residents...

8.3 IDENTIFICATION AND ANALYSIS OF MITIGATION TECHNIQUES

44 CFR Requirement

44 CFR Part 201.6(c)(3)(ii): The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effect of each hazard, with particular emphasis on new and existing buildings and infrastructure.

In formulating the Mitigation Strategy for *the MEMA District 8 Region*, a wide range of activities were considered in order to help achieve the established mitigation goals, in addition to addressing any specific hazard concerns. These activities were discussed during the MEMA District 8 Regional Hazard Mitigation Planning meetings. In general, all activities considered by the RHMC can be classified under one of the following six (6) broad categories of mitigation techniques: Prevention, Property Protection, Natural Resource Protection, Structural Projects, Emergency Services, and Public Awareness and Education. These are discussed in detail below.

8.3.1 Prevention

Preventative activities are intended to keep hazard problems from getting worse, and are typically administered through government programs or regulatory actions that influence the way land is developed and buildings are built. They are particularly effective in reducing a community's future vulnerability, especially in areas where development has not occurred, or capital improvements have not been substantial. Examples of preventative activities include:

- Planning and zoning
- Building codes
- Open space preservation
- Floodplain regulations
- Stormwater management regulations
- Drainage system maintenance
- Capital improvements programming
- Riverine / fault zone setbacks

8.3.2 Property Protection

Property protection measures involve the modification of existing buildings and structures to help them better withstand the forces of a hazard, or removal of the structures from hazardous locations. Examples include:

- Acquisition
- Relocation
- Building elevation
- Critical facilities protection
- Retrofitting (e.g., windproofing, floodproofing, seismic design techniques, etc.)
- Safe rooms, shutters, shatter-resistant glass
- Insurance

8.3.3 Natural Resource Protection

Natural resource protection activities reduce the impact of natural hazards by preserving or restoring natural areas and their protective functions. Such areas include floodplains, wetlands, steep slopes, and sand dunes. Parks, recreation, or conservation agencies and organizations often implement these protective measures. Examples include:

- Floodplain protection
- Watershed management
- Riparian buffers
- Forest and vegetation management (e.g., fire resistant landscaping, fuel breaks, etc.)
- Erosion and sediment control
- Wetland preservation and restoration
- Habitat preservation
- Slope stabilization

8.3.4 Structural Projects

Structural mitigation projects are intended to lessen the impact of a hazard by modifying the environmental natural progression of the hazard event through construction. They are usually designed by engineers and managed or maintained by public works staff. Examples include:

- Reservoirs
- Dams / levees / dikes / floodwalls
- Diversions / detention / retention
- Channel modification
- Storm sewers

8.3.5 Emergency Services

Although not typically considered a “mitigation” technique, emergency service measures do minimize the impact of a hazard event on people and property. These commonly are actions taken immediately prior to, during, or in response to a hazard event. Examples include:

- Warning systems
- Evacuation planning and management
- Emergency response training and exercises
- Sandbagging for flood protection
- Installing temporary shutters for wind protection

8.3.6 Public Education and Awareness

Public education and awareness activities are used to advise residents, elected officials, business owners, potential property buyers, and visitors about hazards, hazardous areas, and mitigation techniques they can use to protect themselves and their property. Examples of measures to educate and inform the public include:

- Outreach projects
- Speaker series / demonstration events
- Hazard map information
- Real estate disclosure
- Library materials
- School children educational programs
- Hazard expositions

8.3.7 Historical Properties and Cultural Resources

Historic preservation is a field that allows communities to preserve a sense of place, a unique identity, and a link to the past. It is an important tool not only for educating residents and visitors about the history of a place, but it can also help maintain community pride and a sense of belonging. **Historic properties** and **cultural resources** are also valuable economic assets that increase property values and attract businesses and tourists. A **Historic Property** is any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (National Register) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religions and cultural importance to an Indian Tribe or Native Hawaiian organization and that meet the National Register criteria. (Source: 36 CFR Part 800.16 [1].)

Cultural Resources are the non-living examples of objects acquired and preserved because of their potential value as examples, as reference material, or as objects of artistic, historic, scientific, educational, or social importance, either individually or as a collection. **Cultural resources** include “moveable heritage,” such as collections of artifacts, statuary, artwork, and important documents or repositories. Often housed in libraries, museums, archives, historical repositories, or historic properties, these resources range from three-dimensional examples such as sculptures, historic furnishings, family heirlooms, or textiles, to two-dimensional examples such as family records, written history or memorabilia, old photographs and maps, and other archival materials.

Protection measures involve the modification of existing buildings and structures to help them better withstand the forces of a hazard, or removal of the structures from hazardous locations. Examples include:

- Elevate
- Replace historic windows with stronger glass; new window design will match historic design.
- Property and resource protection.
- Structural diversions.
- Public education and awareness.
- Natural resource protection for historic landscape features and archeological sites.
- Basic Property Improvements.
- Retrofitting.
- Upgrading mechanical and fire-protection systems.
- Relocation

8.4 SOURCES OF FUNDING

8.4.1 Sources of Grant Funding

Below is a list of the funding sources for mitigation projects, as well as program parameters and project eligibility.

- **Federal Hazard Mitigation Assistance Grants**—The Federal Emergency Management Agency (FEMA) provides funding for three Hazard Mitigation Assistance Grant Programs. These programs, described in detail in FEMA's Hazard Mitigation Assistance Unified Guidance. The program was updated on July 30, 2024, and are summarized for future reference when mitigation activities are implemented. The grant programs are administered within the State of Mississippi by the Mississippi Emergency Management Agency, Office of Mitigation. A brief description of each program is provided below, followed by a list of eligible program activities and examples in Table.
 - **Hazard Mitigation Grant Program (HMGP)** is authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.
 - The **key purpose of HMGP** is to ensure critical mitigation measures that reduce loss of life and property from future disasters are not lost during the reconstruction process following a disaster. HMGP funds are available when authorized under a Presidential disaster declaration in the jurisdictions of the State requested by the Governor.
 - **Building Resilience in Communities Program (BRIC)**, the goal of which is, to reduce disaster risk, but will focus on projects with the potential for widespread community impact. In 2019 and 2020, FEMA secured widespread stakeholder input into the design of **BRIC program requirements**.
 - **Flood Mitigation Assistance (FMA)** is authorized by Section 1366 of the **National Flood Insurance Act of 1968 (NFIA)** with the goal of reducing or eliminating claims under the **National Flood Insurance Program (NFIP)** by making available funds for flood mitigation projects for structures covered by flood insurance policies.
 - The program focuses on retrofit of individual properties that ha
 - In the long run, increasing property resiliency will lead to reductions in NFIP property loss payouts.
 - The Repetitive Flood Claims Program (RFC) and Severe Repetitive Loss Program (SRL) have been integrated into the FMA Program.
 - As is the case with PDM, funding is announced annually and is subject to the level of funding appropriation.

8.4.2 Other Grant Sources

FEMA Public Assistance (PA) 406 Mitigation Grant Program is available for counties included in a FEMA presidential disaster declaration. If they are eligible to receive PA funding, the community must develop a valid and eligible Project Worksheet in a timely manner, and the FEMA PA group administering the disaster must agree with the community on the importance of the project. Project types include, but are not limited to, floodproofing, wind protection, road elevation, drainage upgrades/improvements. The FEMA web site with information about this program may be found here: <https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit>.

Department of Housing and Urban Development (HUD) Community Development Block Grant program Disaster Recovery (CDBG-DR) Program: CDBG-DR funding is made available on a case-by-case basis by the U.S. Congress and is usually authorized after larger disaster events that have received a presidential disaster declaration. The program generally covers projects related to acquisition or elevation of residential structures, but funding can also be made available to small businesses, including the elevation of rental properties. Funding can be used to enhance community code enforcement. For more information about CDBG-DR, and for additional information on this program, visit <https://www.hudexchange.info/programs/cdbg-dr/>.

Department of Housing and Urban Development (HUD) Community Development Block Grant program Disaster Recovery Program - Mitigation (CDBG-MIT): The U.S. Congress makes program funding available on a case-by-case basis. Funding is usually authorized after larger disaster events that already received a presidential disaster declaration. The program generally covers projects related to acquisition or elevation of residential structures, but funding can also be made available to small businesses, including the elevation of rental properties. Funding can be used to enhance community code enforcement. For more information about CDBG-MIT, visit the program web site at <https://www.hudexchange.info/programs/cdbbg-mit/>.

US Army Corps of Engineers (USACE) Mitigation: The USACE Flood Control (Structural & Nonstructural), Section 205 of the 1948 Flood Control Act, as amended, authorizes the U.S. Army Corps of Engineers to develop and construct small flood control projects. Each project is limited to a federal cost share of \$7,000,000.00 and must be economically justified, environmentally sound, and technically feasible. Section 14 of the 1946 Flood Control Act, as amended, authorizes the USACE to develop and construct streambank protection to protect public facilities and non-profit public facilities.

8.4.3 Examples of Eligible Mitigation Projects

Property Acquisition and Structure Demolition: Voluntary acquisition of an existing at-risk structure and conversion of the land to open space through demolition of the structure.

Property Acquisition and Structure Relocation: Voluntary physical relocation of an existing structure to an area outside of a hazard-prone area.

Structure Elevation: Physically raising an existing structure to the Base Flood Elevation (BFE) or higher, if required by FEMA or local ordinance.

Mitigation Reconstruction: Construction of an improved elevated building on the same site where an existing building and/or foundation has been partially or completely demolished or destroyed.

Dry Floodproofing: Techniques applied to keep structures dry by sealing the structure to keep floodwaters out.

Dry Floodproofing of Historic Residential Structures: Permissible only when other techniques that would mitigate to the BFE causing the structure to lose its status as a Historic Structure.

Dry Floodproofing of Non-residential Structures: Must be performed in accordance with NFIP Technical Bulletin (TB) 3-93, Non-Residential Floodproofing—Requirements and Certification, and the requirements pertaining to dry floodproofing of non-residential structures found in 44 CFR Sections 60.3(b)(5) and (c)(4).

Minor Localized Flood Reduction Projects: Projects to lessen the frequency or severity of flooding and decrease predicted flood damages, such as the installation or modification of culverts and storm water management activities like creating retention and detention basins.

Structural Retrofitting of Existing Buildings: Modifications to the structural elements of a building to reduce or eliminate the risk of future damage and to protect inhabitants. **Non-structural Retrofitting of Existing Buildings and Facilities**: Modifications to the non-structural elements of a building or facility to reduce or eliminate the risk of future damage and to protect inhabitants.

Safe Room Construction: Safe room construction projects are designed to provide immediate lifesafety protection from tornado and severe wind events, including hurricanes for people in public and private structures.

Infrastructure Retrofit: Measures to reduce risk to existing utility systems, roads, and bridges. **Soil Stabilization**: Projects to reduce risk to structures or infrastructure from erosion and landslides, including installing geo-textiles, stabilizing sod, installing vegetative buffer strips, preserving mature vegetation, decreasing slope angles, and stabilizing with rip rap and other means of slope anchoring.

Wildfire Mitigation: Projects to mitigate the vulnerability of at-risk structures and associated loss of life from the threat of future wildfire.

Post-Disaster Code Enforcement: Projects designed to support the post-disaster rebuilding effort by ensuring sufficient expertise is on hand ensuring appropriate codes and standards, including NFIP local ordinance requirements, are utilized and enforced.

5% Initiative Projects: Provide an opportunity to fund mitigation actions consistent with the goals and objectives of the State or Tribal (Standard or Enhanced), local mitigation plans and meets all HMGP program requirements, but may be difficult to conduct a standard benefit/cost analysis to prove cost effectiveness.

Table Activities by Program

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	✓	✓	✓
▪ Property Acquisition and Structure Demolition	✓	✓	✓
▪ Property Acquisition and Structure Relocation	✓	✓	✓
▪ Structure Elevation	✓	✓	✓
▪ Mitigation Reconstruction	✓	✓	✓
▪ Dry Floodproofing of Historic Residential Structures	✓	✓	✓
▪ Dry Floodproofing of Non-Residential Structures	✓	✓	✓
▪ Generators	✓	✓	
▪ Localized Flood Risk Reduction Projects	✓	✓	✓
▪ Non-Localized Flood Risk Reduction Projects	✓	✓	
▪ Structural Retrofitting of Existing Buildings	✓	✓	✓
▪ Non-Structural Retrofitting of Existing Buildings and Facilities	✓	✓	✓
▪ Safe Room Construction	✓	✓	
▪ Wind Retrofit for One- and Two-Family Residences	✓	✓	
▪ Infrastructure Retrofit	✓	✓	✓
▪ Soil Stabilization	✓	✓	✓
▪ Wildfire Mitigation	✓	✓	✓
▪ Post-Disaster Code Enforcement	✓		
▪ Advance Assistance	✓		
▪ 5 Percent Initiative Projects*	✓		
▪ Aquifer and Storage Recovery**	✓	✓	✓
▪ Flood Diversion and Storage**	✓	✓	✓
▪ Floodplain and Stream Restoration**	✓	✓	✓
▪ Green Infrastructure**	✓	✓	✓
▪ Miscellaneous/Other**	✓	✓	✓
2. Hazard Mitigation Planning	✓	✓	✓
3. Technical Assistance		✓	✓
4. Management Costs	✓	✓	✓

*FEMA allows increasing the 5 percent initiative amount up to 10 percent for a Presidential Major Disaster Declaration under HMGP. The additional 5 percent initiative funding can be used for activities that promote disaster-resistant codes for all hazards. As a condition of the award, either a disaster-resident building code must be adopted, or an improved Building Code Effectiveness Grading Schedule is required.

**Indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

8.5 SELECTION OF MITIGATION TECHNIQUES FOR THE MEMA DISTRICT 8 REGION

In order to determine the most appropriate mitigation techniques for the communities in the *MEMA District 8 Region*, the RHMC members thoroughly reviewed and considered the findings of the Capability Assessment and Risk Assessment to determine the best activities for their respective communities. Other considerations included the effect of each mitigation action on overall risk to life and property, its ease of implementation, its degree of political and community support, its general cost-effectiveness, and funding availability (if necessary).

8.5 PLAN UPDATE REQUIREMENT

In keeping with FEMA requirements for plan updates, the Mitigation Actions identified in the previous *MEMA District 8 county plans* were evaluated to determine their 2024 implementation status. Updates on the implementation status of each action are provided. The mitigation actions provided in *Section 9: Mitigation Action Plan* include the mitigation actions from the previous plans as well as any new mitigation actions proposed through the 2025 planning process.

SECTION 9

MITIGATION ACTION PLAN

This section includes the listing of the mitigation actions proposed by the participating jurisdictions in MEMA District 8. It consists of the following two subsections:

- ✦ 9.1 Overview
- ✦ 9.2 Mitigation Action Plans

44 CFR Requirement

44 CFR Part 201.6(c)(3)(iii): The mitigation strategy shall include an action plan describing how the actions identified in *paragraph (c)(2)(ii)* of this section will be prioritized, implemented, and administered by the local jurisdiction.

9.1 OVERVIEW

As described in the previous section, the *Mitigation Action Plan*, or *MAP*, provides a functional plan of action for each jurisdiction. It is designed to achieve the mitigation goals established in *Section 8: Mitigation Strategy* and will be maintained on a regular basis according to the plan maintenance procedures established in *Section 10: Plan Maintenance*.

Each proposed mitigation action has been identified as an effective measure (policy or project) to reduce hazard risk for the *MEMA District 8 Region*. Each action is listed in the *MAP* in conjunction with background information such as hazard(s) addressed, relative priority, and estimated cost. Other information provided in the *MAP* includes potential funding sources to implement the action should funding be required (not all proposed actions are contingent upon funding). Most importantly, implementation mechanisms are provided for each action, including the designation of a lead agency or department responsible for carrying the action out as well as a timeframe for its completion. These implementation mechanisms ensure that the *MEMA District 8 Regional Hazard Mitigation Plan* remains a functional document that can be monitored for progress over time. The proposed actions are not listed in priority order, though each has been assigned a priority level of “**high**,” “**moderate**,” or “**low**” as described below and in *Section 8* (page 8.2). Local community action plans are located in their prospective county annexes.

The *Mitigation Action Plan* is organized by mitigation strategy category (Prevention, Property Protection, Natural Resource Protection, Structural Projects, Emergency Services, or Public Education and Awareness). The following are the key elements described in the *Mitigation Action Plan*:

- **Hazard(s) Addressed**—Hazard which the action addresses.
- **Relative Priority**—High, moderate, or low priority as assigned by the jurisdiction.
- **Funding Sources**—Local, State, or Federal sources of funds are noted here, where applicable.
- **Estimated Cost**—Anticipated cost of the action.
- **Responsible Party**—Department responsible for undertaking the action.
- **Target Completion Date**—Date by which the action the action should be completed. More information is provided when possible.
- **2024 Action Implementation Status**—Indication of completion, progress, deferment, or no change since the previous plan. If the action is new, that will be noted here.

9.2 MITIGATION ACTION PLANS

Covington County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Implemented and ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County EMA & BOS	Ongoing	Implemented and ongoing
P-3	Consider adoption of flood damage prevention ordinance in Covington County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented and ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Road Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Deferred due to funds
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Deferred due to funds
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	N/A	No cost	County	Ongoing	Implemented and ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Implemented and ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Deferred due to funding
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Grants, BRIC, HMGP, Self-funded	Low to no cost	County EMA	Ongoing	Implemented and ongoing

SECTION 9: MITIGATION ACTION PLAN

ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County EMA, County BOS	Ongoing	Implemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, S, FL	High	HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Unknown	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Enhance or upgrade emergency response communications or Central Dispatch and other communications equipment.	All	High	Unknown	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-9	Explore upgrade/enhancement of 911 system in Covington County.	All	Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Planning Upgrade
ES-10	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Deferred due to funding
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented/ Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Implemented/ Ongoing
ES-14	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Implemented/ Ongoing
ES-15	Host a meeting to review Covington County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Ongoing	Implemented/ Ongoing
ES-16	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Implemented as Funds become available
ES-17	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-funded, Grants, BRIC, HMGP	Low cost	County	Ongoing	Implemented as Funds become available
Structural Projects								
SP-1	Acquisition / Demolition / Relocation or Elevation, Reconstruction of flood prone structures	FL	Medium	Grants, BRIC, HMGP,	Unknown	County EMA	Ongoing	Ongoing
SP-2	Individual Saferooms	TS, T	Medium	Grants, BRIC, HMGP,	Unknown	County EMA	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	Range	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Implemented/ Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented/ Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented/ Ongoing

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PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented/ Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	No Cost	No additional cost	County/ Town/ City	Ongoing	Implemented/ Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, Grants, BRIC, HMGP	Unknown	County	Ongoing	Deferred
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	Self-funded, Chamber of Comm., SCORE	Low or no Cost	County	Ongoing	Implemented and Ongoing

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds
 TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic
County EMA = Covington County Emergency Management Agency County BOS = Covington County Board of Supervisors

Forrest County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, EMA District	Ongoing	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County Floodplain Administer	Ongoing	Implemented and ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Completed and ongoing as needed
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Road Crews	Annual Review	Ongoing as funding is available
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering/ Ongoing
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering/ Ongoing
P-8	Support the development of a shared geographic data system for land use and site planning.	All	High	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	Low	CDBG, MSDA	Unknown	County	Ongoing	County is considering
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MCDA	No cost	County	Concurrent with prep. of Comp. Plan	County is considering/ ongoing
P-11	Address the threat of unhealthy trees that are near critical facilities.	HW, WS, H	Medium	Local Funds, BRIC, HMGP, Grant Sources	TBD	City Urban Forestry, County Road Department Planning Dept., EMA District	Ongoing	Ongoing
P-12	Address the local need of debris removal and related items after a storm.	HW, FL, Landslide, WS, H	High	HMGP, BRIC, and other grant sources	\$500,000	County Road Dept., Planning Dept., and County, EMA District	Ongoing	Ongoing
P-13	Preserve classified, confidential and/or important governmental documents.	All Hazards	High	Local, Grant Sources, HMGP, BRIC	TBD	County	Ongoing	Ongoing
P-14	Rehabilitating and/or removing high and significant hazard dams from service	Dam Failure	High	Local, Grant Sources, HMGP, BRIC	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing
P-15	Adopting and enforcing land use ordinances in dam inundation zones downstream of dams	Dam Failure	High	Local, Grant Sources, HMGP, BRIC	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing
P-16	Acquiring and/or elevating structures and/or acquiring easements in inundation zones downstream of dams	Dam Failure	High	Local, Grant Sources, HMGP, BRIC	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing
P-17	Flood protection, such as berms, floodwalls, or floodproofing, in inundation zones downstream of dams	Dam Failure	High	Local, Grant Sources, HMGP, BRIC	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing

Property Protection

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PP-1	Promote alternative construction techniques such as the building of “safe rooms” in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Ongoing as funds are available
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	HMGP, USDA Rural Dev., CDBG, Small Muni. Grant	Unknown	County	Ongoing	Ongoing pending available funds
PP-6	Actively pursue and buy those properties that are considered repetitive loss properties.	All	High	HMGP, PDM, FMA Self-funded	Unknown	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing pending available funds
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded, Grants, BRIC, HMGP,	Low to no cost	EMA District	Ongoing	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, EMA District	Ongoing	Ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP, Local Funds	Unknown	County, EMA District	Ongoing	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-8	Explore upgrade/enhancement of 911 system in Forrest County.	All	Medium	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County, EMA District	Ongoing	Completed pending upgrades
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, EMA District	Ongoing	Ongoing
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	EMA District	Ongoing	Ongoing

SECTION 9: MITIGATION ACTION PLAN

ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	Unknown	County	Ongoing	Ongoing pending available funds
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing pending available funds
ES-14	Host a meeting to review Forrest County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County, EMA District	Ongoing	Completed and Ongoing
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, others	Unknown	County	Ongoing	Implemented as Funds become available
ES-16	Adoption of building codes in Forrest County.	All Hazards	Medium	Local funds	TBD	County	Ongoing	Deferred
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, Grants, BRIC, HMGP	Low Cost	County	Ongoing	Ongoing pending available funds
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	EMA District	Ongoing	Ongoing, if funds available
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	EMA District	Ongoing	EMA District
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County, EMA District	Upon Request	Ongoing – contingent on funding
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County, EMA District	Ongoing	Implemented/ Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grants, BRIC, HMGP, Grant	Unknown	County	Ongoing	The County is considering joining CRS
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	TBD	County	Ongoing	Ongoing – contingent on funding
PEA-8	Discourage development within the Special Flood Hazard Area and in the floodway.	FL	Medium	HMGP	TBD	County	Ongoing	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation/Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic WS = Winter Storm H=Hail EMA District = Forrest County Emergency Management District County BOS = Forrest County Board of Supervisors								

Green County Mitigation Action Plan

Goal 1: Strategies to reduce death, injury, property damage, infrastructure damage, response costs, and recovery costs.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
1a. Renovate existing public buildings to meet modern standards.								
1a.1	The jurisdictions will work to make existing public buildings resistant to damage from manmade and natural disasters.	All Hazards	Medium	HMGP	TBD	County Engineer	Ongoing	Ongoing
1b. Provide for redundancy in public and infrastructure operations.								
1b.1	The jurisdictions will work to ensure that their public functions and infrastructure will have the capability to be operational in the event of manmade and natural disasters.	All Hazards	High	HMGP, Self-Fund	TBD	EMA Director	Annual Review	Ongoing
1c. Develop strategies and plan to provide for minimization of damage and disturbance.								
1c.1	The jurisdictions will develop strategies, plans, and or ordinances to guide development toward low-risk areas.	All Hazards	High	Self-Fund	TBD	EMA Deputy Director	Annual Review	Ongoing
1d. Purchase equipment that will lower response and recovery cost and accelerate response and recovery time.								
1d.1	The jurisdictions will prioritize and purchase equipment that will provide for an overall benefit to the community. (Important factors are increasing response and recovery time and lowering overall costs.)	HU, TS	High	Self-Fund	Unknown	County, Mayors	Annual Review	Ongoing
1e. Provide stock piles of essential items.								
1e.1	Establish stockpiles of fuel (gasoline and diesel), N-95 masks, potassium iodine tablets and other commodities that are not readily available and needed during emergencies.	All Hazards	High	Self-Fund	TBD	EMA Director	Ongoing	Completed & Ongoing

Goal 2: Enhance preparedness and effective response to technological or transportation hazards.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
2a. Support planning and coordination among agencies								
2a.1	Host a meeting to review Greene County Comprehensive Emergency Management Plan with requirements of the National Incident Management System (NIMS).	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2a.2	Host a meeting with representatives from each emergency response agency within the County to review Greene County's CEMP, and the individual areas of responsibility, as well as areas for enhanced coordinated response, particularly in areas related to technological/ transportation hazards.	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2b. Provide cross-jurisdictional continuity for the development and maintenance of infrastructure								
2b.1	Address cross-jurisdictional issues related to response, recovery, and mitigation on key projects with overlapping boundaries by exploring opportunities to join with neighboring jurisdictions to resolve common infrastructure issues, particularly involving roadways and drainage systems. (There are several common roadways and waterways that could be addressed collaboratively.)	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds
2b.2	Hazard Mitigation Committee should work together to address common infrastructure and/or natural hazard issues.	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds

2c: Actively search for and identify funding sources for the enhancement of emergency response abilities of fire and sheriff's departments.

2c.1	Pursue outside funding sources and opportunities for enhancement of firefighting activities and staff with certifications, equipment/trucks to enhance capabilities, hiring of additional personnel, and advanced training opportunities for police and fire personnel.	All Hazards	Medium to High	Self-Fund, DHS, SAFER Grants, Others	Unknown	County Fire Coordinator & County Sheriff	Ongoing	Completed & Ongoing
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Goal 3: Enhance and improve the ability to mitigate potential loss of revenue from civil hazards.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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3a: Provide outreach to businesses in Green County to mitigate loss of revenue.

3a.1	Encourage businesses to develop business continuity or contingency operating plans. The County can work with the Greene County Chamber of Commerce to develop annual workshops on business continuity planning for small businesses in the County.	All Hazards	High	Self-Fund	Unknown	County and Mayors	Not Completed	Ongoing pending available funds
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Goal 4: Invest in community facilities and infrastructure to ensure the safety of individuals, reduce damage to public buildings, and ensure continuity of emergency services.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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4a: Ensure the adequacy of emergency shelters

4a.1	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters. In the event of disasters, adequate shelter space to ensure health and safety of citizens and visitors as well as a potential influx of coastal evacuees is imperative.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4a.2	The County will explore potential existing sites to use as a special needs shelter, and funding opportunities to appropriately equip and staff a special needs shelter.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing

4b: Improve disaster communication systems within the County.

4b.1	The County has identified a need for improved disaster communication systems	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Ongoing	Ongoing
4b.2	Consider generators for local radio station service areas.	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Contingent on funding	Ongoing

4c: Install warning sirens in the County.

4c.1	The County has identified a need for warning sirens to be placed in several sites to be determined countywide and in all townships.	All Hazards	High	HMGP and Self-Funded	Unknown	EMA Deputy Director	Contingent on funding	Ongoing if funding is available
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4d: Ensure that structures are not built in the floodplain.

4d.1	Strictly enforce the flood damage prevention ordinances. The jurisdictions will continue to enforce the Flood Damage Prevention Ordinances/Flood Plain Ordinances, which provide direction and regulations for structures located in flood hazard areas or flood plains.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
4d.2	Ensure that structures in floodplain areas are elevated	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
4d.3	Jurisdictions will revise the ordinances to include the elevation requirement for all new structures.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available

4e: Consider adoption of subdivision regulations.

4e.1	Encourage jurisdictions to adopt Subdivision Ordinances as they enforce minimum standards governing streets, utilities and other required improvements. Relevant provisions include minimum specifications for drainage and runoff of storm water; sizes, capacities and design of drainage pipes and culverts; and coordination and approval of street names and numbers. None of the Jurisdictions in Greene County have Subdivision Ordinances.	All Hazards	Medium	Self-Funded	Unknown	County BOS	Not complete due to funding	Ongoing if funding is available
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4f: Enhance evacuation through improved traffic flow on evacuation routes.

4f.1	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans. Collaborating with neighboring jurisdictions can result in improved evacuation options. The maps are made available to the general public at the Emergency Management Office and at each City Hall.	All Hazards	Medium	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
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4g: Enhance and maintain storm water controls.

4g.1	Maintain and upgrade the County's drainage facilities. The County annually maintains drainage canals, ditches, and culverts.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4g.2	Map the easements and rights-of-way of roadways and drainage ways. Develop a map of all publicly owned easements, including maintenance easements along waterways and drainage-ways, and including all rights-of-way and easements along all roadways. This GIS layer will assist the County in planning future roadway expansion and help to prevent obstructions within the floodway.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing

4h: Ensure continuity in services to critical facilities and infrastructure.

4h.1	Ensure that new public buildings are designed and built to hurricane resistant building codes.	All Hazards	High	HMGP	Unknown	County Engineer	Ongoing	Ongoing
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4i: Ensure secure operation of water wells, water tanks and wastewater treatment facilities.

4i.1	Elevation of storage tanks and water mains can provide an added level of security to a community's water supply. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4i.2	Add Security Cameras to monitor water wells and water tanks. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing

4j: Develop a government services continuity plan.

4j.1	The County and municipal jurisdictions will explore the feasibility of developing an enhanced government continuity plan to ensure that emergency operations can function and that day-to-day operations can resume as soon as possible after an emergency.	All Hazards	Medium to High	CDBG	Unknown	EMA Deputy Director	Annually	Completed & Ongoing
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4k: Encourage participation in the national flood insurance program.

4k.1	Greene County, Leakesville, McLain, and State Line participate in the National Flood Insurance Program, indicating that they meet minimum eligibility requirements established by the Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
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4k.2	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.3	Encourage participation in the Community Rating System of the NFIP.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
Goal 5: Provide Education about Potential Hazards and Risks; Expand Awareness of Protective Measures That Can Be Taken To Minimize the Potential of Loss of Life and Damage to Property.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
5a: Enhance disaster preparedness of county staff and elected officials								
5a.1	Explore continuing education programs/opportunities for staff and elected officials.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5a.2	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5b: Enhance disaster preparedness of citizens and visitors								
5b.1	Provide education and outreach materials to citizens and visitors.	All Hazards	High	Self-Funded	Unknown	County and Red Cross	Annually	Completed & Ongoing
5b.2	Develop an outreach program on family disaster planning.	All Hazards	High	Self-Funded	Unknown	EMA Deputy Director	Annually	Completed & Ongoing
5c: Provide education and outreach to a vulnerable and/or targeted population								
5c.1	Identify high risk areas where hazards are most likely to occur.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete due to funding	Ongoing
5c.2	Establish a notification procedure for populations in high-risk areas.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete due to funding	Ongoing
5d: Provide outreach programs on building requirements, technologies, materials for building more hazard-resistant structures.								
5d.1	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	All Hazards	Medium	EMA Director	Unknown	EMA Director	Not Complete due to funding	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic County EMA = Greene County Emergency Management Agency County BOS = Greene County Board of Supervisors								

Jefferson Davis County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	High	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Annual County Budget	County BOS & Road Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	County is considering
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	No cost	County	Ongoing	Pending status change in action P-9
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	Unknown	County	Ongoing	Implemented and ongoing
PP-6	Property Acquisitions and elevations of flood prone structures	FL	Medium	FEMA, HMGP, PDM	N/A	County	Ongoing	Ongoing
PP-7	Construct new multipurpose EOC facility to serve as EOC and safe room for emergency personnel during disaster situations.	All Hazards	High	FEMA, HMGP, PGM, Local Sources	\$3,000,000 - \$10,000,000	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding
Emergency Services								

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ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Grants, BRIC, HMGP, Self-funded	Low to no cost	JDCEMA	Annual Review	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, JDCEMA	Ongoing	Complemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	25% of the total cost	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	25% of the total cost	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP, Self-funded	25% of the total cost	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	25% of the total cost	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	25% of the total cost	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Explore upgrade/enhancement of 911 system in Jefferson Davis County.	All	Medium	HMGP	25% of the total cost	County and/or EMA	Contingent on funding	Planning Upgrade
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	25% of the total cost	County and/or EMA	Contingent on funding	Deferred due to funding
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	Unknown	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	Unknown	County EMA	Ongoing	Implemented / Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	Unknown	County	Ongoing	Implemented / Ongoing
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-14	Host a meeting to review Jefferson Davis County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Annual Review	Ongoing as needed
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Ongoing – contingent on funding
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, Grants, BRIC, HMGP, Self-funded	Low Cost	County	Ongoing	Ongoing – contingent on funding
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing

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PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented / Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Implemented / Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev, CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	Deferred
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	Low or no Cost	County	Ongoing	Implemented and Ongoing
PEA-8	Develop/encourage water conservation measures during times of shortage	Drought	Medium	HMGP	N/A	County	Ongoing	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic County EMA/ JDCEMA = Jefferson Davis County Emergency Management Agency County BOS = Jefferson Davis County Board of Supervisors								

Jones County Mitigation Action Plan

Action #	Description	Hazard Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Coordinate a floodplain management council with representatives from each of the participating jurisdictions. Conduct meetings to educate and develop a floodplain management program that will address future development and administration of a floodplain program.	Multiple	Moderate	To be determined	No Cost	County	Ongoing	Completed & Ongoing
P-2	Evaluate existing land-use studies and determine if any changes need to be made to address land-use in the new designated floodplain areas.	Multiple	High	Local Budget and FMA	To be determined	County	Ongoing	Ongoing
P-3	Assign data collection of each disaster/weather event countywide. This process will aid community leaders in assessing needs as an ongoing process.	Multiple	Moderate	Local Budget and FMA	To be determined	County Emergency Manag. Agency	Annual	Completed & Ongoing
P-4	Conduct a study throughout the county identifying storm water issues and determine areas that need improvement. Issues include physical and regulatory interventions.	Multiple	Moderate	CDBD, Grants, BRIC, HMGP, Local Funds	\$150,000	County BOS	3-5 years	Ongoing
P-5	Continue to enforce building codes and exceed the standards when proven cost-effective to withstand higher wind forces that could be delivered by a natural disaster. Develop and training program for city employees	Multiple	Moderate	Local Funds	\$20,000	Municipalities	Ongoing	Ongoing
Property Protection								
PP-1	Upon receipt of the new floodplain maps, review repetitive loss structures and implement a plan to complete the acquisition process.	FL	Moderate	FMA	To be determined	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Evaluate streams and identify potential projects to mitigate stream bank restoration.	FL	Moderate	To be determined	To be determined	County	Ongoing	Completed & Ongoing
Emergency Services								
ES-1	Develop a drought council to implement an emergency response plan for the County	DR	Moderate	To be determined	To be determined	County EMA	N/A	Deferred—No Drought Council
ES-2	Identify and implement automated mass notification/warning system County wide	All Hazards	High	Grants, BRIC, HMGP	\$15,000-\$20,000 Annually	County & Municipalities	Ongoing	Ongoing
Structural Projects								
SP-1	Flood Elevations	FL	Medium	Grants, BRIC, HMGP	N/A	County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Partner with various stakeholder groups to develop an all-hazard public outreach and education program.	Multiple	High	To be Determined	No Cost	County	Ongoing	Completed & Ongoing

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds
 TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic
County EMA = Jones County Emergency Management Agency County BOS = Jones County Board of Supervisors

Marion County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No Cost	County	Annual Review	Complete. (High risk areas are identified in the hazard mitigation plan), Ongoing
P-2	Site-locate vulnerable population on a County - wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., COPS, FIRE	TBD	MCEMA, County	Upon request	Ongoing (the County is currently working to develop a GIS shapefile that identifies the vulnerable populations in the County)
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	TBD	County Floodplain Admin.	Ongoing	Ongoing
P-4	Strictly enforce subdivision regulations concerning developments in flood hazard areas.	FL	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	Unknown	County BOS	Ongoing	Ongoing
P-5	Continue to maintain and upgrade drainage facilities.	HI, TS, FL, BH	High	CDBG, HMGP, PDM, USDA Rural Dev., self-funding	Unknown	County BOS, County Road Crews	Annual Review	Ongoing as funding becomes available
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/Pending staff availability and funding
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/Pending staff availability and funding
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	No Additional Cost	County	Ongoing	Ongoing/ Pending staff availability and funding
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding
P-10	Incorporate the hazard mitigation plan into the comprehensive plan.	All	Medium	N/A	No Additional Cost	County	Concurrent with prep. of Comp Plan	Ongoing/ Pending staff availability and funding

Property Protection

PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-Funded	No Additional Cost	County	Ongoing	Pending staff availability and funding
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	TBD	County	Ongoing	Ongoing for construction in the Floodplain
PP-3	Ensure that new public buildings are designed and built to hurricane resistant buildings codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	CDBG, HMGP, PDM, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding
PP-5	Ensure secure operation of water wells and wastewater treatment facilities.	All	High	HMGP, USDA Rural Dev., CDBG, Small Muni. Grant	Unknown	County	Ongoing	Ongoing

Natural Resource Protection

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NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	TBD	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing/ Pending Funding availability
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Grants, BRIC, HMGP, Self-funded,	Low or no Cost	MCCEMA	Ongoing	Ongoing pending staff availability and funding
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	TBD	MCCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	TBD	MCCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-4	Explore potential sites for a new special needs shelter.	TO, HU, TS, FL	High	HMGP	TBD	MCCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-5	Improve disaster communication systems within the county.	All	High	CDBG, HMGP, PSM, USDA Rural Dev., Self-funded	TBD	MCCEMA	Ongoing	Ongoing/ Pending staff availability and funding
ES-6	Consider generators for local radio station service areas.	TO, HU, TS	High	HMGP	TBD	MCCEMA	Contingent upon funding	Pending funding
ES-7	Install warning sirens.	TO, HU, TS	High	HMGP	\$350,000-\$400,000	MCCEMA	Contingent upon funding	Pending funding
ES-8	Enhance Central Dispatch.	All	Medium	HMGP	Unknown	MCCEMA, County	Ongoing	Completed/ Ongoing
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	MCCEMA, County	Contingent upon funding	Ongoing/ Pending staff availability and funding
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	TBD	County BOS, MCCEMA	Annual Review	Ongoing
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	Unknown	County	Ongoing	Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Ongoing Pending funding
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev., CDBG, Small Muni. Grant	Unknown	County	Annual Review	Completed/ Ongoing
ES-14	Host a meeting to review Marion County Comprehensive Emergency Management Plan	TT	Medium	N/A	No Additional Cost	County	Annual Review	Ongoing
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Additional Cost	County	Ongoing	Ongoing
	Generators for all existing and future fire			CDBG, HMGP,				

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SP-2	stations and 911 critical facilities including comm tower sites	All	High	PDM, USDA Rural Dev., Self-funded	TBD	MCEMA, County	Ongoing	Ongoing
SP-3	Elevation/Acquisition Rep Loss properties	FL	Medium to High	HMGP, PDM	TBD	MCEMA, County	Ongoing	Ongoing
SP-4	Harden existing structures to serve as safe rooms (schools, emergency shelters).	All	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-funded	TBD	MCEMA, County	Ongoing	Ongoing
SP-5	Construct community multipurpose facilities/saferooms in vulnerable communities throughout the county.	All	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-funded	TBD	MCEMA, County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, Grants, BRIC, HMGP	Low Cost	County	Ongoing	Ongoing pending funding
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	TBD	MCEMA	Annual Review	Ongoing
PEA-3	Encourage the development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	MCEMA	Annually	Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple	High	Self-funded	TBD	MCEMA, County	Upon Request	Ongoing
PEA-5	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	TBD	County	Annual Review	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic MCEMA = Marion County Emergency Management Agency County BOS = Marion County Board of Supervisors								

Perry County Mitigation Action Plan

SECTION 9: MITIGATION ACTION PLAN

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Deferred
P-4	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Annual County Budget	County BOS & Road Crews	Annual Review	Implemented & Ongoing
P-5	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred based on funding availability.
P-6	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	This action has been deferred due to lack of funding.
P-7	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	TBD	County	Ongoing	Deferred based on funding availability.
P-8	Develop a comprehensive development plan.	All	High	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
P-9	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	TBD	County	Ongoing	Deferred due to funds
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	TBD	County	Annual Review	Implemented & Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding (no action taken)
Emergency Services								
	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to	All	Medium	Self-funded Grants,	Low to	County	Annual	Implemented

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ES-1	emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.			BRIC, HMGP,	no cost	EMA	Review	& Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA, County BOS	Ongoing	Completed and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HGMP, CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA	Ongoing	Implemented & Ongoing
ES-4	Improve disaster communication systems within the County.	All	High	Unknown	Unknown	County EMA	Contingent on funding	Ongoing
ES-5	Install warning sirens in the County.	O, HU	Medium	HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Enhance Central Dispatch and other communications equipment	All	Medium	HMGP	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-7	Explore Upgrade/enhancement of 911 in Perry County.	All	Low to Medium	HMGP, Self-funded	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-8	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County EMA, County	Contingent on funding	Completed & Ongoing
ES-9	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Annual Review	Implemented & Ongoing
ES-10	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented & Ongoing
ES-11	Ensure continuity of utility services for public buildings and other critical facilities. This includes purchasing backup generators and/or transfer switches to existing and future critical assets.	All	High	HGMP	Unknown	County	Ongoing	Implemented & Ongoing
ES-12	Develop a government services continuity plan.	All	Medium	USDA Rural Dev CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-13	Host a meeting to review Perry County Comprehensive Emergency Management Plan.	All	Medium	Self-funded	No additional cost	County	Annual Meeting	Implemented & Ongoing
ES-14	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Implemented & Ongoing
ES-15	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-Funded, Grants, BRIC, HMGP	Low Cost	County	Ongoing	Implemented & Ongoing
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing Contingent on funding	Deferred due to funds
SP-2	Acquisitions of RL/SRL Properties	FL	High	Grants, BRIC, HMGP, EMI	No Cost	County	Ongoing	Implemented & Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Grants, BRIC, HMGP, EMI	Low to No Cost	County	Ongoing	Implemented & Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented & Ongoing

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PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented & Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented & Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Completed & Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA, Others	Unknown	County	Ongoing	Deferred, no action taken

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds
 TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic
County EMA = Perry County Emergency Management Agency County BOS = Perry County Board of Supervisors

Wayne County Mitigation Action Plan

SECTION 9: MITIGATION ACTION PLAN

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of the flood damage prevention ordinance in Wayne County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented & Ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Monitor flood level of local rivers.	FL	High	HMGP	Unknown	County	Ongoing	Ongoing
P-6	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, TS	High	Self-funded	Unknown	County	Annual Review	Ongoing (Some progress implemented- clean out ditches annually.)
P-7	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred. (Waynesboro is mapping drainage areas and it will include elevations, cross sections, and flow directions.)
P-8	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing
P-9	Develop a government services continuity plan.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Completed & Ongoing
P-10	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	Unknown	County	Ongoing	Ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	Unknown	County	Ongoing	Implemented and ongoing
PP-6	Property Acquisitions and elevations of flood prone structures	FL	Medium	FEMA, HMGP, PDM	25% of the total cost	County	Ongoing	Ongoing
PP-7	Generators and hook-ups for critical facilities	TH, HU, TS, TO	Medium	HMA Grants, BRIC, HMGP	25% of the total cost	County	Ongoing	Ongoing
PP-8	Warning sirens throughout planning area	TH, TO	Medium	HMA, Grants, BRIC, HMGP	25% of the total cost	County	Ongoing	Ongoing
PP-9	Individual saferooms throughout planning area	TO	Medium	HMA, Grants, BRIC, HMGP	25% of the total cost	County	Ongoing	Ongoing
PP-10	361 Saferooms were needed- location is TBD	TO	Medium	HMA, Grants, BRIC, HMGP	25% of the total cost	County	Ongoing	Ongoing
PP-11	Elevation of critical facilities, such as pumps, and equipment	FL	Medium	HMA, Grants, BRIC, HMGP	25% of the total cost	County	Ongoing	Ongoing
PP-12	Floodproofing measures for critical facilities prone to flood	FL	Medium	HMA, Grants, BRIC, HMGP	25% of the total cost	County	Ongoing	Ongoing

Natural Resource Protection

NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing
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Emergency Services

ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and Grants, BRIC, HMGP	Low to no cost	JDCEMA	Annual Review	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, JDCEMA	Ongoing	Completed and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Up to 25% of the total cost	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Up to 25% of the total cost	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Unknown	TBD	County EMA	Contingent on funding	Ongoing (MSWINN at Fire Department and all use social media.)
ES-7	Ensure that emergency sirens are in place county-wide.	All	High	HMGP	Up to 25% of the total cost	County EMA	Contingent on funding	Ongoing
ES-8	Install warning informers in buildings that house vulnerable populations.	All	High	HMGP	Up to 25% of the total cost	County EMA	Contingent on funding	Ongoing
ES-9	Install Alert FM service at radio station.	All	High	HMGP	Up to 25% of the total cost	County EMA	Contingent on funding	Completed & Ongoing
ES-10	Upgrade Emergency Broadcast System capabilities.	All	High	HMGP	Up to 25% of the total cost	County EMA	Contingent on funding	Ongoing
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Ongoing
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Ongoing
ES-14	Host a meeting to review Wayne County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Annual Review	Ongoing
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Ongoing

Structural Projects

SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing
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Public Education and Awareness

PEA-1	Explore continuing education programs/opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, Grants, BRIC, HMGP	Low Cost	County	Ongoing	Ongoing
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SECTION 9: MITIGATION ACTION PLAN

PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA	Upon Request	Implemented / Ongoing
PEA-5	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	Low or no Cost	County	Ongoing	Implemented and Ongoing
PEA-6	Education and outreach regarding drought and water conservation procedures	All	Medium	Self-funded	Low or no cost	County	Ongoing	Ongoing

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds
 TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic
County EMA = Wayne County Emergency Management Agency County BOS = Wayne County Board of Supervisors

SECTION 10

PLAN MAINTENANCE

This section discusses how the *MEMA District 8 Mitigation Strategy* and *Mitigation Action Plan* will be implemented and how the *Regional Hazard Mitigation Plan* will be evaluated and enhanced over time. This section also discusses how the public will continue to be involved in a sustained hazard mitigation planning process. It consists of the following three subsections:

- ★ 10.1 Implementation and Integration
- ★ 10.2 Monitoring, Evaluation, and Enhancement
- ★ 10.3 Continued Public Involvement

44 CFR Requirement

44 CFR Part 201.6(c)(4)(i): The plan shall include a plan maintenance process that includes a section describing the method and schedule of monitoring, evaluating and updating the mitigation plan within a five-year cycle.

44 CFR Part 201.6(c)(4)(ii): The plan maintenance process shall include a process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

10.1 IMPLEMENTATION AND INTEGRATION

Each agency, department, or other partner participating under the *MEMA District 8 Regional Hazard Mitigation Plan* is responsible for implementing specific mitigation actions as prescribed in the Mitigation Action Plan. Every proposed action listed in the *Mitigation Action Plan* is assigned to a specific “lead” agency or department in order to assign responsibility and accountability and increase the likelihood of subsequent implementation.

In addition to the assignment of a local lead department or agency, an implementation time period or a specific implementation date has been assigned in order to assess whether actions are being implemented in a timely fashion. The counties in the *MEMA District 8 Region* will seek outside funding sources to implement mitigation projects in both the pre-disaster and post-disaster environments. When applicable, potential funding sources have been identified for proposed actions listed in the *Mitigation Action Plan*.

The participating jurisdictions will integrate this *Hazard Mitigation Plan* into relevant city and county government decision-making processes or mechanisms, where feasible. This includes integrating the requirements of the Hazard Mitigation Plan into other local planning documents, processes, or mechanisms, such as comprehensive or capital improvement plans, when appropriate. The members of the *MEMA District 8 Regional Hazard Mitigation Council (RHMC)* will remain charged with ensuring that the goals and mitigation actions of new and updated local planning documents for their agencies or departments are consistent, or do not conflict with, the goals and actions of the *Hazard Mitigation Plan*, and will not contribute to increased hazard vulnerability in the *MEMA District 8 Region*.

Since the previous County-level plans were adopted, each County and participating jurisdiction has worked to integrate the hazard mitigation plan into other planning mechanisms where applicable/feasible. Examples of how this integration has occurred have been documented in the Implementation Status discussion provided for each of the mitigation actions found in Section 9. Specific examples of how integration has occurred include:

- Integrating the mitigation plan into reviews and updates of floodplain management ordinances;
- Integrating the mitigation plan into reviews and updates of County emergency operations plans;
- Integrating the mitigation plan into review and updates of building codes; and
- Integrating the mitigation plan into the capital improvements plan through identification of mitigation actions that require local funding

Opportunities to further integrate the requirements of this *Plan* into other local planning mechanisms shall continue to be identified through future meetings of the *RHMC*, individual county meetings, and the annual review process described herein. Although it is recognized that there are many possible benefits to integrating components of this *Plan* into other local planning mechanisms, the development and maintenance of this stand-alone *Regional Hazard Mitigation Plan* is deemed by the *MEMA District 8 RHMC* to be the most effective and appropriate method to implement local hazard mitigation actions at this time.

10.2 MONITORING, EVALUATION, AND ENHANCEMENT

Periodic revisions and updates of the *Hazard Mitigation Plan* are required to ensure that the goals of the *Plan* are kept current, taking into account potential changes in hazard vulnerability and mitigation priorities. In addition, revisions may be necessary to ensure that the *Plan* is in full compliance with applicable federal and state regulations. Periodic evaluation of the *Plan* will also ensure that specific mitigation actions are being reviewed and carried out according to the *Mitigation Action Plan*.

When determined necessary, the *MEMA District 8 RHMC* shall meet in March of every year to evaluate the progress attained and to revise, where needed, the activities set forth in the *Plan*. The findings and recommendations of the *RHMC* shall be documented in the form of a report that can be shared with interested municipal and County Council members. The *RHMC* will also meet following any disaster events warranting a reexamination of the mitigation actions being implemented or proposed for future implementation. This will ensure that the *Plan* is continuously updated to reflect changing conditions and needs within the region. MEMA will be responsible for reconvening the *RHMC* for these reviews. In lieu of an annual meeting, MEMA may send out a survey for each participating jurisdiction to complete, indicating mitigation action status updates and other relevant changes.

FIVE YEAR PLAN REVIEW

The *Plan* will be thoroughly reviewed by the *RHMC* every five years to determine whether there have been any significant changes in the region that may, in turn, necessitate changes in the types of mitigation actions proposed. New development in identified hazard areas, an increased exposure to hazards, an increase or decrease in capability to address hazards, and changes to federal or state legislation are examples of factors that may affect the necessary content of the *Plan*.

The plan review provides *MEMA District 8 county officials* with an opportunity to evaluate those actions that have been successful and to explore the possibility of documenting potential losses avoided due to the implementation of specific mitigation measures. The plan review also provides the opportunity to address mitigation actions that may not have been successfully implemented as assigned. MEMA will be responsible for reconvening the *RHMC* and conducting the five-year review.

During the five-year plan review process, the following questions will be considered as criteria for assessing the effectiveness and appropriateness of the *Plan*:

- Do the goals address current and expected conditions?
- Has the nature or magnitude of risks changed?
- Are the current resources appropriate for implementing the *Plan*?
- Are there implementation problems, such as technical, political, legal or coordination issues with other agencies?
- Have the outcomes occurred as expected?
- Did County departments participate in the plan implementation process as assigned?

Following the five-year review, any revisions deemed necessary will be summarized and implemented according to the reporting procedures and plan amendment process outlined herein. Upon completion of the review and update/amendment process, the *MEMA District 8 Regional Hazard Mitigation Plan* will be submitted to the State Hazard Mitigation Officer at MEMA for final review and approval in coordination with the Federal Emergency Management Agency (FEMA).

DISASTER DECLARATION

Following a disaster declaration, the *MEMA District 8 Regional Hazard Mitigation Plan* will be revised as necessary to reflect lessons learned, or to address specific issues and circumstances arising from the event. It will be the responsibility of MEMA to reconvene the *RHMC* and ensure the appropriate stakeholders are invited to participate in the plan revision and update process following declared disaster events.

REPORTING PROCEDURES

The results of the five-year review will be summarized by the *RHMC* in a report that will include an evaluation of the effectiveness of the *Plan* and any required or recommended changes or amendments. The report will also include an evaluation of implementation progress for each of the proposed mitigation actions, identifying reasons for delays or obstacles to their completion along with recommended strategies to overcome them.

PLAN AMENDMENT PROCESS

Upon the initiation of the amendment process, the *MEMA District 8 counties* will forward information on the proposed change(s) to all interested parties including, but not limited to, all directly affected County departments, residents, and businesses. Information will also be forwarded to *MEMA*. This information will be disseminated in order to seek input on the proposed amendment(s) for no less than a 45-day review and comment period.

At the end of the 45-day review and comment period, the proposed amendment(s) and all comments will be forwarded to the *RHMC* for final consideration. The *RHMC* will review the proposed amendment along with the comments received from other parties, and if acceptable, the committee will submit a recommendation for the approval and adoption of changes to the *Plan*.

In determining whether to recommend approval or denial of a *Plan* amendment request, the following factors will be considered by the *RHMC*:

- There are errors, inaccuracies, or omissions made in the identification of issues or needs in the *Plan*.
- New issues or needs have been identified which are not adequately addressed in the *Plan*.
- There has been a change in information, data, or assumptions from those on which the *Plan* is based.

Upon receiving the recommendation from the *RHMC*, and prior to adoption of the *Plan*, the participating jurisdictions will hold a public hearing, if deemed necessary. The governing bodies of each participating jurisdiction will review the recommendation from the *RHMC* (including the factors listed above) and any oral or written comments received at the public hearing. Following that review, the governing bodies will take one of the following actions:

- Adopt the proposed amendments as presented;
- Adopt the proposed amendments with modifications;
- Refer the amendments request back to the *RHMC* for further revision; or
- Defer the amendment request back to the *RHMC* for further consideration and/or additional hearings.

10.3 CONTINUED PUBLIC INVOLVEMENT

44 CFR Requirement

44 CFR Part 201.6(c)(4)(iii): The plan maintenance process shall include a discussion on how the community will continue public participation in the plan maintenance process

Public participation is an integral component to the mitigation planning process and will continue to be essential as this *Plan* evolves over time. It was a priority to represent the underserved communities in the Jurisdictions. Copies of the *Plan* and questionnaires were placed at public utilities for people to evaluate, fill out, and/or comment. As described above, significant changes or amendments to the *Plan* shall require a public hearing prior to any adoption procedures.

Other efforts to involve the public in the maintenance, evaluation, and revision process will be made as necessary. These efforts may include:

- ★ Advertising meetings of the *RHMC* in local newspapers, public bulletin boards and/or County office buildings;
- ★ Designating willing and voluntary citizens and private sector representatives as official members of the *RHMC*;
- ★ Utilizing local media to update the public on any maintenance and/or periodic review activities taking place;
- ★ Utilizing the *MEMA District 8 county websites and Facebook pages* to advertise any maintenance and/or periodic review activities taking place; and
- ★ Keeping copies of the *Plan* in public libraries, public utilities, and/or community centers.

Annex A

Covington County

This annex includes jurisdiction-specific information for Covington County and its participating municipalities. It consists of the following five subsections:

- ★ A.1 Covington County Community Profile
- ★ A.2 Covington County Risk Assessment
- ★ A.3 Covington County Vulnerability Assessment
- ★ A.4 Covington County Capability Assessment
- ★ A.5 Covington County Mitigation Strategy

A.1 COVINGTON COUNTY COMMUNITY PROFILE

A.1.1 Geography and the Environment

Covington County is located in south central Mississippi just 63 miles south of Jackson, the state’s capital, and provides easy access to other parts of the state and nation. It comprises one city and two towns, the City of Collins, the Town of Mount Olive, and the Town of Seminary, as well as many small unincorporated communities. An orientation map is provided as **Figure A.1**.

The county is an agricultural area consisting of approximately 60 percent commercial forestland. The total area of the county is 415 square miles, 1 square mile of which is water area. Additionally, the Okatoma River carves a winding path through the county, running through all three municipalities. Each year, several thousand tourists travel from across the Southeast to canoe and kayak a portion of the river from Seminary to Sanford.

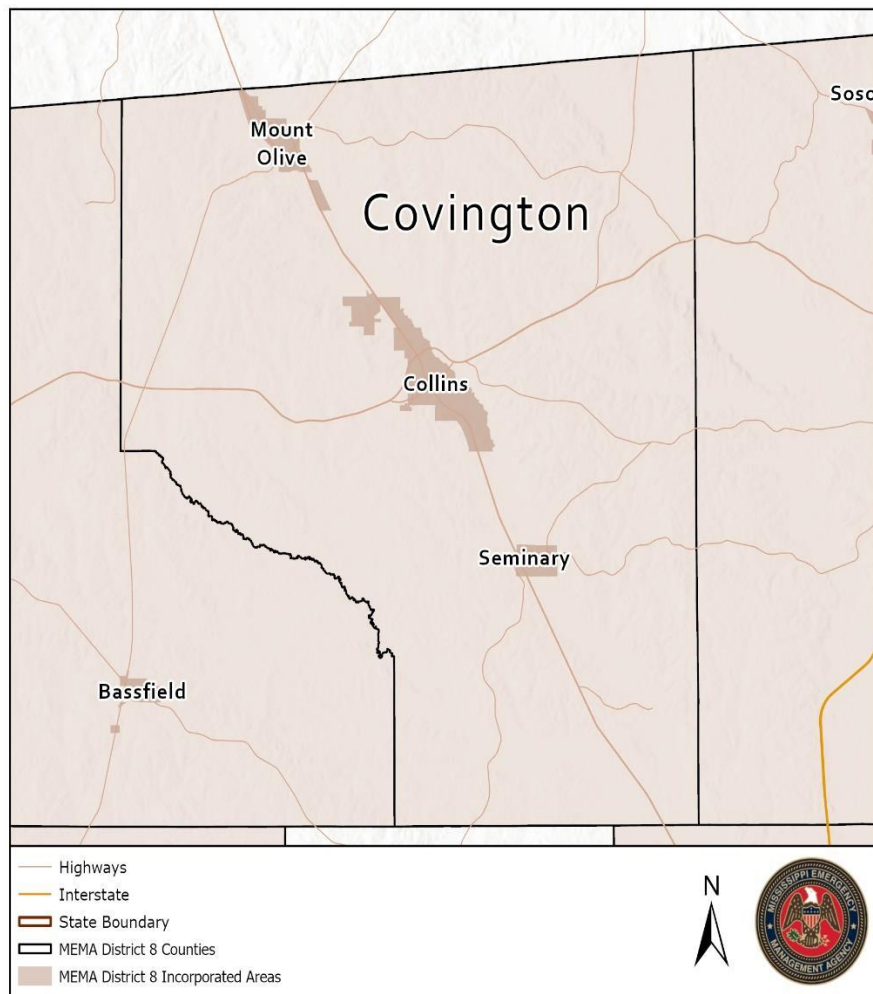
In Covington County, the summers are long, hot, and muggy; the winters are short and cold; and it is wet and partly cloudy year-round. Over the course of the year, the temperature typically varies from 35 F to 90°F and is rarely below 25°F or above 96°F. The hot season lasts for 5 months, from May to September, with an average daily high temperature above 85°F. The hottest day of the year is July 22, with an average high of 90°F and low of 71°F. The cool season lasts for 3 months, from December to February, with an average daily high temperature below 60°F. The coldest day of the year is January 17, with an average low of 35°F and high of 58°F.

A wet day is one with at least 0.04 inches of liquid or liquid-equivalent precipitation. The chance of wet days in Covington County varies throughout the year. The wetter season lasts 5 months, from November to March, with a greater than 36% chance of a given day being a wet day. The chance of a wet day peaks at 51% on January 19. The drier season lasts 7 months, from April to October. The smallest chance of a wet day is 21% on October 5.

Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 51% on January 19. To show variation within the months and not just the monthly totals, we show the rainfall accumulated over a sliding 31-day period centered around each day of the year. Covington County experiences significant seasonal variation in monthly rainfall. Rain falls throughout the year in Covington County. The most rain falls during the 31 days centered around February 14, with an average total accumulation of 5.6 inches. The least rain falls around October 4, with an average total accumulation of 3.0 inches.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	58	62	69	76	82	88	90	90	85	77	68	60
Average Lows	35	38	45	53	61	68	71	71	65	53	45	37
Average Rainfall	5.69	5.50	5.84	4.84	5.1	4.49	4.83	4.61	3.9	3.86	5.05	5.25

FIGURE A.1: COVINGTON COUNTY ORIENTATION MAP



A.1.2 Population and Demographics

According to the 2020 Census, Covington County has a population of 18,340 people. The county has seen a slight decline in population between 2010 and 2020, and the population density is 47 people per square mile. However, between the last official Census and the proposed estimates, there has been a decline. Per the Census Reports, in 2023, Covington County had a population of 18,059 which is a 1.5 percent decline. The household income is \$40,164 which grew 9.2 percent. Population counts from the US Census Bureau for 2010 and 2020 for the county and all of the participating jurisdictions are presented in **Table A.1**. Estimates for 2023 are also included.

TABLE A.1: POPULATION COUNTS FOR COVINGTON COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2023 Estimate
Covington County	19,568	18,340	-6.27%	18,059
<i>Collins</i>	2,586	2,342	-9.43	2,323
<i>Mounty Olive</i>	982	895	-8.85	879
<i>Seminary</i>	314	305	-2.86	300

Source: US Census Bureau

All of the jurisdictions in Covington County had a decrease in population which could lead to a slight decrease in vulnerability.

Based on the 2020 Census, the median age of residents of Covington County is 37.6 years and per the 2023 estimates, that has not changed. The racial characteristics of the county are presented in **Table A.2**. Due to the population decrease, the racial characteristics differ slightly. The population is 34.9 percent for black or African American persons and 1.9 percent are Hispanic or Latino. Whites continue to make up the majority of the population in the county, accounting for 61 percent of the population.

TABLE A.2: DEMOGRAPHICS OF COVINGTON COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Covington County	61%	35%	0.1%	1%	2%
<i>Collins</i>	41%	53%	0.2%	1%	5%
<i>Mount Olive</i>	33%	65%	0%	1%	1%
<i>Seminary</i>	95%	2%	1%	0.1%	2%

Source: US Census Bureau

TABLE A.3: AVERAGE INCOME AND HEALTH IN COVINGTON COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below the Poverty Level
Covington County	18.2%	9.9%	\$40,164	23.6%
<i>Collins</i>	21.9%	16%	\$31,435	39.3%
<i>Mount Olive</i>	17.9%	10.4%	\$52,719	24.1%
<i>Seminary</i>	15.7%	29.1%	\$52,188	18.3%

Source: US Census Bureau

A.1.3 Housing

According to the 2020 US Census, there are 8,290 housing units in Covington County, the majority of which are single family homes or mobile homes. However, the median home value is \$76,700. There was a decrease in population, housing units, and overall median home value could reduce vulnerability, although jurisdictions were not aware of any change in vulnerability. Housing information for the county and three towns is presented in **Table A.4**.

TABLE A.4: HOUSING CHARACTERISTICS OF COVINGTON COUNTY

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2020)	Median Home Value (2020)
Covington County	8501	\$78,900	8,290	\$76,700
<i>Collins</i>	1,026	\$93,300	960	\$76,000
<i>Mount Olive</i>	458	\$76,500	454	\$56,200
<i>Seminary</i>	148	\$104,200	135	\$105,000

Source: US Census Bureau

A.1.4 Infrastructure

TRANSPORTATION

There are several US and state highways that serve Covington County and link it with other regions of Mississippi as well as the neighboring states of Louisiana, Arkansas, Tennessee, and Alabama. To the south, US Highway 49 serves the county directly and leads to the Mississippi Gulf Coast. Northward, US Highway 49 connects with Interstate 55 in Jackson, leading to Memphis, St. Louis, and the Great Lakes Region. In addition, US Highway 84 provides a route to major cities east and west. State Highways 35, 37, 532, 535, 588, 589, 590, and 598 link Covington County with the six neighboring counties.

Covington County enjoys the close proximity of the Jackson International Airport as well as the Hattiesburg-Laurel Regional Airport.

Covington County is also served by the Canadian National Railroad, but there is no passenger service offered at this time.

UTILITIES

Electrical power in Covington County is provided by several sources, including Mississippi Power Company, Southern Pine, Dixie Electric, South Mississippi Electric Power Association, Entergy, and the City of Collins.

Water and sewer service is provided to residents by the City of Collins and a variety of lift stations and rural water associations, including Cold Springs Water Association, Northwest Covington Water Association, Okatoma Water Association, Salem Water Association, Southwest Jones Water Association, and Willow Grove Water Association.

COMMUNITY FACILITIES

There are a number of buildings and community facilities located throughout Covington County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are 6 fire stations, 5 police stations, and 9 public schools located within the county.

There is one hospital located in Covington County. Covington County Hospital is a 25-bed medical-surgical hospital located in the City of Collins.

Recreation-oriented tourism is one of Covington County's assets. There are two lakes offering quality outdoor opportunities in the County. Lake Mike Connor is located west of Collins and offers freshwater fishing, RV camping, swimming, picnicking, hiking, boating, and Florida Bass Fishing. Dry Creek Water park, located in the Mount Olive area, offers camping, swimming, picnicking, hiking, boating, numerous ball fields, tennis courts, and swimming facilities. Also, the Okatoma River provides the only white-water rapids in the state and offers unique opportunities for fishing and canoeing.

A.1.5 Land Use

Many areas of Covington County are undeveloped or sparsely developed due to the county's location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region's population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

A.1.6 Employment and Industry

According to the Mississippi Employment Security Commission, in 2024, Covington County had an average annual employment of 5,350 workers and an average unemployment rate of 2.2 percent (compared to 6.0 percent for the state). In 2023, the Education Services and Health care industry employed 29.6 percent while the Manufacturing industry employed 19.3 percent of the County's workforce followed by Retail Trade (17.2%), and Construction (6.7%). The average annual wage in 2023 for Covington County was \$40,164 compared to \$52,985 for the State of Mississippi.

A.2 COVINGTON COUNTY RISK ASSESSMENT

This subsection includes hazard profiles for each of the significant hazards identified in Section 4: Hazard Identification as they pertain to Covington County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in Section 5: Hazard Profiles.

A.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Covington County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain. According to GIS analysis, of the 412 square miles that make up Covington County, there are 80 square miles of land in zones A and AE (1-percent annual chance floodplain/100-year floodplain) and 1 square mile of land in the 0.2-percent annual chance floodplain (500-year floodplain).

These flood zone values account for 19.7 percent of the total land area in Covington County. It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood-related losses often do occur outside of delineated special flood hazard areas.

FIGURE A.2: SPECIAL FLOOD HAZARD AREAS IN COVINGTON COUNTY



HISTORICAL OCCURRENCES

Floods resulted in six disaster declarations in Covington County in 1974, 1983, 1990, 2016, 2018, and 2020. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National Centers for Environmental Information reported a total of 65 events in Covington County since 2000. A summary of these events is presented in **Table A.5**. These events accounted for approximately \$3.2 million in property damage in the county. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table A.6**.

TABLE A.5: SUMMARY OF FLOOD OCCURRENCES IN COVINGTON COUNTY

LOCATION	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Collins</i>	10	0	0	\$347,000	\$0
<i>Mount Olive</i>	3	0	0	\$250,000	\$0
<i>Seminary</i>	4	0	0	\$44,000	\$0
<i>Unincorporated Area</i>	29	0	0	\$2,536,000	\$0
Covington County Total:	65	0	0	\$3,177,000	\$0

Source: NCED/NOAA

TABLE A.6: HISTORICAL FLOOD EVENTS IN COVINGTON COUNTY

Location	Date	Type	Deaths	Injuries	Property Damage
City of Collins					
<i>Collins</i>	3/2/2001	Flash Flood	0	0	\$0
<i>Collins</i>	9/3/3001	Flash Flood	0	0	\$25,000
<i>Collins</i>	3/8/2011	Flash Flood	0	0	\$45,000
<i>Collins</i>	3/9/2011	Flash Flood	0	1	\$50,000
<i>Collins</i>	9/24/2013	Flash Flood	0	0	\$50,000
<i>Collins</i>	3/10/2016	Flash Flood	0	0	\$20,000
<i>Collins</i>	3/11/2016	Flash Flood	0	0	\$150,000
<i>Collins</i>	4/18/2019	Flash Flood	0	0	\$3,000
<i>Collins</i>	8/28/2020	Flash Flood	0	0	\$3,000
<i>Collins</i>	3/18/2022	Flash Flood	0	0	\$1,000
Town of Mount Olive					
<i>Mount Olive</i>	3/21/2003	Flash Flood	0	0	\$20,000
<i>Mount Olive</i>	4/12/2009	Flash Flood	0	0	\$200,000
<i>Mount Olive</i>	3/10/2016	Flash Flood	0	0	\$30,000
Town of Seminary					
<i>Seminary</i>	12/14/2009	Flash Flood	0	0	\$5,000
<i>Seminary</i>	3/8/2011	Flash Flood	0	0	\$4,000
<i>Seminary</i>	2/20/2014	Flash Flood	0	0	\$25,000
<i>Seminary</i>	3/11/2016	Flash Flood	0	0	\$10,000
Unincorporated Area in Covington County					
<i>Countywide</i>	3/1/2001	Flash Flood	0	0	\$0

Countywide	3/2/2001	Flash Flood	0	0	\$10,000
Countywide	3/3/2001	Flash Flood	0	0	\$10,000
Countywide	2/5/2003	Flash Flood	0	0	\$200,000
South Portion	3/31/2005	Flash Flood	0	0	\$250,000
Southeast Portion	4/1/2005	Flash Flood	0	0	\$80,000
Southeast Portion	8/29/2005	Flash Flood	0	0	\$300,000
Williamsburg	12/15/2009	Flash Flood	0	0	\$5,000
Pickering	2/18/2012	Flash Flood	0	0	\$10,000
Pickering	2/20/2014	Flash Flood	0	0	\$30,000
Smith	1/3/2015	Flash Flood	0	0	\$5,000
Hot Coffee	3/10/2016	Flash Flood	0	0	\$8,000
Lux	3/11/2016	Flash Flood	0	0	\$25,000
Smith	3/11/2016	Flash Flood	0	0	\$7,000
Hot Coffee	3/11/2016	Flash Flood	0	0	\$4,000
Sanford	3/11/2016	Flash Flood	0	0	\$10,000
Sanford	6/6/2016	Flash Flood	0	0	\$1,500,000
Ora	4/13/2019	Flash Flood	0	0	\$3,000
Grandsi	7/21/2019	Flash Flood	0	0	\$2,000
Pickering	1/13/2020	Flash Flood	0	0	\$15,000
Grandsi	8/25/2020	Flash Flood	0	0	\$2,000
Williamsburg	8/25/2020	Flash Flood	0	0	\$5,000
Sanford	8/25/2020	Flash Flood	0	0	\$2,000
Hot Coffee	3/16/2021	Flash Flood	0	0	\$2,000
Williamsburg	6/6/2021	Flash Flood	0	0	\$25,000
Ora	8/30/2021	Flash Flood	0	0	\$20,000
Williamsburg	6/6/2021	Flash Flood	0	0	\$2,000
Arbo	8/24/2022	Flash Flood	0	0	\$1,000
Grandsi	8/24/2022	Flash Flood	0	0	\$5,000

Source: NCED/NOAA

TABLE A.7: EXTENT: FLOOD EVENTS IN COVINGTON COUNTY SINCE THE LAST UPDATE

Covington County: Total Loss \$91 Thousand					
Location	Date	Loss	Cause	Impact	
Ora	4/13/2019	\$3,000	During the late afternoon of April 13 and into the evening and overnight, a strong spring storm system pushed across the Lower Mississippi Valley region and brought widespread severe weather, a regional tornado outbreak, and flash flooding.	• Heavy rainfall was also impactful and multiple inches of rain quickly fell across some locations and caused flash flooding, some of it extensive. • Flooding occurred near Highway 49 and Sunset Road.	
Collins	4/18/2019	\$3,000	During the daytime hours of April 18th, a developing storm system helped generate a large line of thunderstorms which then moved across the region.	• Three parts of Evergreen Church Road were under water.	
Gandsi	7/21/2019	\$2,000	Strong thunderstorms produced flash flooding.	• Water flowed across Hwy 49 between Collins and Seminary.	
			A warm front was situated across southern Mississippi during the evening of January	• Water was across part of Highway 49 near The Mooney Branch of Okatoma Creek.	

Pickering	1/13/2020	\$15,000	13th. This, combined with a passing disturbance and anomalous moisture, supported numerous thunderstorms and heavy rainfall that produced widespread rainfall between 2 and 6 inches with the heavies corridor right across the central portion of the forecast area.	Part of Old Highway 49 was flooded south of Seminary near the Seminary Canoe Rental. Part of MS Highway 589 was flooded near Seminary.
County	8/25/2020	\$9,000	Tropical moisture associated with Tropical Storm Marco helped to initiate showers across southeast Mississippi. Some of this rain brought flash flooding to the region.	Flooding occurred on Yates Road and on Mt. Horeb Road.
Collins Airport	8/28/2020	\$3,000	Hurricane Laura made landfall along the Louisiana coast near Lake Charles in the early morning hours of August 27.	• Rainfall amounts up to four inches occurred along and west of the Mississippi River and this resulted in some minor flooding. • Minor street flooding occurred in Collins. Minor flooding also occurred on Knights Road southwest of Collins.
Hot Coffee	3/16/2021	\$2,000	A stalled front, combined with a warm and moist airmass, led to the development of showers and thunderstorms across the region.	Water was over Highway 37 in northern Covington County.
Williamsburg	6/6/2021	\$25,000	As an upper-level low pressure system moved over central parts of the country, a few storm systems moved across the state of Mississippi.	Over 200 homes were flooded in portions of Bolivar and Sunflower Counties. A few rounds of heavy rain caused flash flooding across numerous roads in various parts of Covington County. A video showed water flowing across a portion of McDonald Chapel Road south of Collins.
Ora	8/30/2021	\$20,000	Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30.	Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding. Heavy rainfall from Tropical Storm Ida resulted in flash flooding that washed out a culvert on Ora Williamson Road.
Collins	3/18/2022	\$1,000	Showers and thunderstorms developed in the warm, moist airmass south of a warm front.	Flash flooding occurred as storms began to move over the same region. Kola Road was flooded near the bridge.
Williamsburg	7/22/2022	\$2,000	Slow moving thunderstorms on the afternoon of July 22nd resulted in flash flooding in Covington County near Collins.	Flash flooding occurred southwest of Collins near the Williamsburg community.
Arbo & Gandsi	8/24/2022	\$6,000	A low-pressure system spinning over northern Louisiana and southern Arkansas brought several rounds of showers and thunderstorms producing heavy rain to Mississippi August 24th through 25th.	The result was widespread flooding of roads, homes, and businesses around the state. A few roads flooded in the southern part of the county including Williams Road near Highway 588 and Ed Mayfield Road.

On June 6, 2017, Flooding around the Lux Community caused a culvert washout along McConnel Foster Road, and several unoccupied campers had to be towed away from flooding along Okatoma River Road. Flood waters eroded the railroad embankment along a stretch of tracks near the Lux Community. Three train cars later derailed after passing over the weakened tracks. An estimated 3 to 6 inches of rain fell nearby. This caused flash flooding that caused around \$1.5 million in damage.

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES

Recently, FEMA issued a directive that prevents states or local governments from sharing NFIP information such as rep loss or severe rep loss data with third parties. Third parties are considered as consultants, contractors, etc. As a result, for continuity of information so that the reader will have an idea of the historical occurrences along with the corresponding damage amounts, the decision was made to leave the existing information in the plan.

According to FEMA flood insurance policy records as of March 2023, there have been 48 flood losses reported in Covington County through the National Flood Insurance Program (NFIP) since 1978, totaling nearly \$529,000 in claims payments. Currently, this remains the best available data. A summary of these figures for the county is provided in **Table A.1**.

It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Covington County were either uninsured, denied claims payment, or not reported.

REPETITIVE LOSS PROPERTIES

No updates to this section can be provided at this time. Information normally used to update this section is not currently accessible. As a result, this information will remain the same for historical purposes.

As of May 2023, there are eight non-mitigated repetitive loss properties located in Covington County, which accounted for 18 losses and more than \$291,000 in claims payments under the NFIP. The average claim amount for these properties is \$16,168. All eight of the properties are single family residential.

Without mitigation these properties will likely continue to experience flood losses. **Table A.8** presents detailed information on repetitive loss properties and NFIP claims and policies for Covington County. Currently, this remains the best available data.

TABLE A.8: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSSES IN COVINGTON COUNTY

Location	Flood Losses	Claim Payments	Repetitive Loss Properties	Number of Properties	Number of Losses	Total Payments	Average Payments
<i>Collins</i>	18	\$124,503		0	0	\$0	\$0
<i>Mount Olive</i>	3	\$46,982		0	0	\$0	\$0
<i>Seminary</i>	0	\$0		0	0	\$0	\$0
<i>Unincorporated Area</i>	27	\$357,325		8	18	\$291,033	\$16,169
Covington County Total:	48	\$528,810		8	18	\$291,033	\$16,169

*These communities do not participate in the National Flood Insurance Program. Therefore, no values are reported.

Source: FEMA, NFIP

PROBABILITY OF FUTURE OCCURRENCES

Due to the unpredictable nature of this hazard, flood events will remain a threat in Covington County, and the probability of future occurrences will remain likely (between 10 and 100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the county. For example, the northeast corner of the county has more floodplain and thus a higher risk of flood than the northwest corner of the county. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

A.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Most erosion in Covington County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Covington County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Covington County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

Covington County has a flood damage prevention ordinance that includes measures to limit erosion, such as preventing damaging increases in erosion and controlling filling, grading, dredging, and other development which may increase erosion. Such actions will continue to be implemented as necessary throughout the county.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Covington County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

If the climate continues to change as scientists predict, the higher intensity and magnitude of storms and the increasing drought and high heat days, can lead to erosion in areas that have not been impacted by erosion in the past. Also, the chance of heavy rain leading to flash flooding could also increase in frequency, intensity, and magnitude.

With the increasing frequency and intensity, heavy rains and flash flooding cascading effects are possible such as erosion of soil from the ground, under/ around trees, and under roads. This can lead to falling trees, power outages, and road damage.

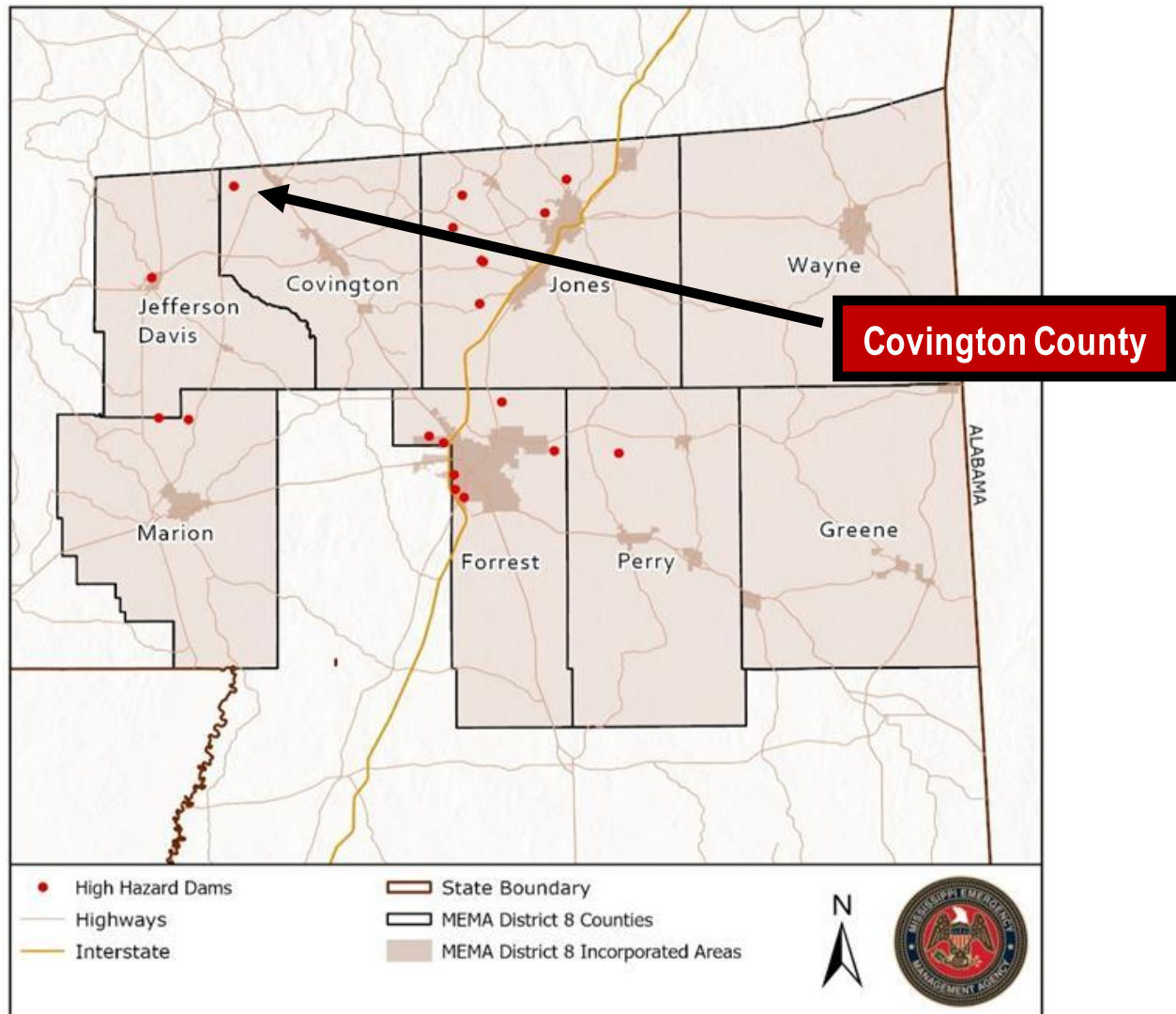
A.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

According to the Mississippi Division of Environmental Quality, there is one dam's status was elevated to a high hazard dam. The high hazard dam is listed by name in **Table A.9**. According to a consensus of local government officials and the Regional Hazard Mitigation Council, a majority of these dams would not pose a major threat in a breach or failure occurrence.

TABLE A.9: COVINGTON COUNTY HIGH HAZARD DAMS

Dam Name	Hazard Potential
Dry Creek Watershed Structure 3 Dam	HIGH

FIGURE A.3: COVINGTON COUNTY HIGH HAZARD DAM LOCATIONS

HISTORICAL OCCURRENCES

There is no record of dam breaches in Covington County. However, several breach scenarios in the county could be catastrophic.

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

A.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local winter weather. Covington County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of twelve recorded winter storm events in Covington County since 2000 and one Disaster Declaration in 2021. These events resulted in over \$2.1M in damages. Detailed information on the recorded winter storm events can be found in **Table A.10**.

TABLE A.10: SUMMARY OF HISTORICAL WINTER STORM EVENTS IN COVINGTON COUNTY

Date	Type	Injuries	Deaths	Property Damage	Crop Damage
1/19/2008	Heavy Snow	0	0	\$500,000	\$0
12/11/2008	Heavy Snow	0	0	\$0	\$0
12/4/2009	Heavy Snow	0	0	\$0	\$0
1/1/2010	Cold Wind Chill	0	0	\$300,000	\$0
2/11/2010	Heavy Snow	0	0	\$700,000	\$0
1/9/2011	Ice Storm	0	0	\$80,000	\$0
2/3/2011	Ice Storm	0	0	\$400,000	\$0
1/28/2014	Heavy Snow	0	0	\$0	\$0
1/6/2017	Winter Weather	0	0	\$10,000	\$0
12/7/2017	Heavy Snow	0	0	\$50,000	\$0
1/16/2018	Winter Weather	0	0	\$0	\$0
2/15/2021	Ice Storm	0	0	\$85,000	\$0
Total:	12	0	0	\$2,125,000	\$0

Source: NCED/NOAA

There have been several severe winter weather events in Covington County. The text below describes one of the major events and associated impacts on the county. Similar impacts can be expected with severe winter weather.

January 2008 Winter Storm—This storm produced heavy snow across the region, with an average of three to four inches of snow. Some heavier amounts, between four to five inches, also fell in isolated areas. At the height of the snow, temperatures fell to near freezing, and accumulations occurred on roadways resulting in a number of traffic accidents. Additionally, some power outages occurred in the heaviest snow band due to the weight of wet snow on limbs and lines. The heaviest snow fell in the areas around Covington, Jefferson Davis, and Jones Counties.

January 2010—A prolonged cold snap, caused by a couple of strong arctic air masses, affected the ArkLaMiss region during the first two weeks of January. This resulted in some record temperatures across the region. Daily highs during that period were in the 20s, 30s and 40s with lows in the teens and 20s. The first ten days of 2010 were the coldest first ten days of any year on record with an average temperature of around 29 degrees, which is around 14 to 16 degrees below normal. This outbreak will not be remembered for any bitterly cold temperatures, it will be remembered for the prolonged period of cold conditions and spans of time below freezing. Due to the duration of the cold, a great deal of damage occurred to the water line infrastructure around the region. The issues from the hard freeze were as follows: water line breaks, and frozen water pipes to homes, especially rural homes; wells freezing up; and water valves being stuck. Due to all the water line breaks, flooding of buildings and homes occurred.

February 2010—Up to 5 inches of snow fell across portions of Covington County, with 5 inches reported just north of Seminary.

February 2011—An ice storm developed across the area on February 3rd into the early morning hours of the 4th. While this icing event was not devastating, the impact to travel was a major issue across the region. A quarter inch of ice accumulated across the county with nearly all bridges iced over. Numerous accidents were reported.

January 28, 2014—Two to three inches of snow mixed with some sleet fell across the northeastern portion of the county.

January 6, 2017—Up to a quarter an inch of sleet and ice fell across the county. The highest amounts were near Seminary, where one quarter an inch accumulated on the Okatoma River Bridge.

December 8, 2017—Heavy snow fell across Covington County, with totals ranging from near 4 inches in Mt. Olive to 7 inches near Seminary. The snow resulted in several traffic accidents, downed tree limbs, and power outages across the county.

January 16, 2018—Light snow fell across the county, with accumulations of up to 1.5 inches.

February 15, 2021—Freezing rain fell across the county. Accumulations of one quarter of an inch occurred across the northwest part of the county. Some sleet also fell but accumulations were light. Ice accumulated on trees and power lines which resulted in power outages across the north.

Winter storms throughout the county have several negative externalities including hypothermia, cost of snow and debris cleanup, business and government service interruption, traffic accidents, and power outages. Furthermore, citizens may resort to using inappropriate heating devices that could catch fire or cause accumulation of toxic fumes.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Covington County. According to historical information, the annual probability is possible (between 1 and 10 percent).

As you can see from the chart above winter weather events seem to be decreasing. Even though the events are decreasing as the climate warms due to Climate Change, it does not mean they will not occur, as there was a Disaster Declaration declared in 2021.

A.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Covington County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Covington County had drought levels (including abnormally dry) in five of the last twenty-four years (2000-2024). **Table A.11** shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE A. 11: HISTORICAL DROUGHT OCCURRENCES IN COVINGTON COUNTY

Abnormally Dry	Moderate Drought	Severe Drought	Extreme Drought	Exceptional Drought	
Location	Date	Injuries/ Deaths	Property Damage	Crop Damage	Event/ Severity
Covington County	10/1/2006	0/0	\$0	\$1,000,000	D3
Covington County	4/25/2007	0/0	\$0	\$0	D2
Covington County	5/1/2007	0/0	\$0	\$700,000	D2
Covington County	6/1/2007	0/0	\$0	\$900,000	D3
Covington County	7/1/2007	0/0	\$80,000	\$0	D3
Covington County	10/13/2015	0/0	\$0	\$1,000	D2
Covington County	11/15/2016	0/0	\$0	\$50,000	D3
Covington County	12/1/2016	0/0	\$0	\$50,000	D2
Covington County	9/1/2023	0/0	\$0	\$0	D3
Covington County	10/1/2023	0/0	\$0	\$0	D3
Covington County	11/1/2023	0/0	\$0	\$1,440,000	D4
Total:	11	0/0	\$80,000	\$4,141,000	

Source: NCED/NOAA

There have been several severe drought events in Covington County. The text below describes one of the major events and associated impacts on the county.

October 2006—During a four-and-a-half-month period, from June to the middle of October, abnormally dry conditions prevailed across most of the Jackson, MS County Warning Area (CWA). Widespread drought conditions were reported across the area during this time period. The U.S. Drought Monitor classified the drought as extreme (D3) over Southeast Mississippi. Drought conditions in the region peaked in intensity during early August over this area. This drought caused approximately \$1 million in crop damage.

April–July 2007—During these last few days of April, rainfall deficits were now running between 10 and 14 inches below normal. Again, areas across Eastern Mississippi remained the driest. Even as the drought conditions were classified as severe, area farmers were not suffering and were only experiencing small impacts of the dry weather.

During the month of May, the drought worsened and expanded a little as only a spattering of rain occurred across the area with the highest totals falling along and west of the Mississippi River. Through May, the entire area within the drought experienced

annual rainfall deficits between 12 and 16 inches, (15-25% of normal rainfall), with the driest conditions occurring across Eastern Mississippi. By the end of May, crops across the state were beginning to feel the impact of the very dry conditions. At that point, some damage to crops had occurred with only small losses to yields. Extended drought conditions made conditions worse with more substantial crop damage/losses throughout most of the summer.

During the month of June, the drought peaked across the region. It held firm across the same areas since May with no expansion. What did expand was the severity as by the end of June, most of Central and East-Central Mississippi was now in extreme drought (D3). The month of June did not offer much rain as most of the forecast area saw less than 40% of the normal rainfall. Historical climate sites are running some 15 to 20 inches below normal for rainfall with deficits now higher than the yearly total. With the drought conditions reaching extreme levels, area farmers and crops began feeling the effects. Many crops from corn to soybeans have been affected with yields forecast to be much less than normal by harvest time. The quality of the crops has been affected as well due to the dry conditions. Covington County suffered \$700 thousand in crop losses in May and another \$900 thousand in June.

November 2023—The combined effects of persistent above-normal temperatures and below-normal precipitation starting in early July 2023 resulted in mounting drought impacts across much of the state of Mississippi. D4 (Exceptional Drought) conditions persisted much of the central and southern portions of the state. Subsoil moisture values across the southern half of the state saw some improvement to between 15 to 30 percent below normal. These conditions placed a severe stress on pastures for livestock and cropland at the end of the growing season. Pine plantations and Christmas tree farms experienced severe losses especially among younger trees. In a study of over 13 million forested acres through western and central Mississippi surveyed by the Mississippi Forestry Commission, it was estimated that approximately 80,000 acres of pine trees were killed by drought stress. In the study area, this accounted for approximately 12.5 million pine trees lost. Stream flows on creeks and rivers were reduced. Drought conditions in Covington County intensified from D3 (Extreme Drought) to D4 (Exceptional Drought) as depicted on the U.S. Drought Monitor and suffered over \$1.4 million in crop damage.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

July 2005—A five-day heat wave covered the area. Temperatures were consistently above 95 degrees. One heat-stress fatality was reported in Covington County. The agricultural industry was hit particularly hard in the cattle and catfish sectors. Water supply issues were encountered by cities and a burn ban was implemented due to the high fire risk.

August 2005—A heat wave covering the south began in mid-August and lasted about 10 days. High temperatures were consistently over 95 degrees and surpassed 100 degrees on some days. It was the first time since August 2000 that 100-degree temperatures reached the area.

July 2006—A short heat wave impacted most of the area temperatures in the 90s to around 100 for five straight days.

August 2007—A heat wave gripped most of the area with the warmest temperatures since 2000. It lasted from August 5th to the 16th.

August 2010—A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Covington County has a probability level of highly likely (100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year.

Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude.

Heat Wave

Based on historical occurrence information, it is assumed that all of Covington County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could impact the effects on the counties' crops, economy, and population.

A.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2023, Covington County experiences an average of 25.2 wildfires annually which burn an average of 124.9 acres per year. The data indicates that most of these fires are small, averaging 5 acres per fire. **Table A.12** provides a summary of wildfire occurrences in Covington County since the last update, and **Table A.13** lists the number of reported wildfire occurrences in the county between the years 2010 and 2023.

TABLE A.12: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2023) *

Covington County	
Average Number of Fires per year	23.4
Average Number of Acres Burned per year	209.4
Average Number of Acres Burned per fire	8.95

Source: MS Forestry Commission

TABLE A.13: HISTORICAL WILDFIRE OCCURRENCES IN COVINGTON COUNTY

Covington County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	25	54	21	10	17	52	31	13	13	14	11	13	23	56
Number of Acres Burned	47	89	57	86	104	74	72	104	68	114	80	97	283	473

Source: MS Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Wildfire events will be an ongoing occurrence in Covington County. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to Covington County for future wildfire events is likely (a 10 and 100 percent annual probability).

If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact or wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

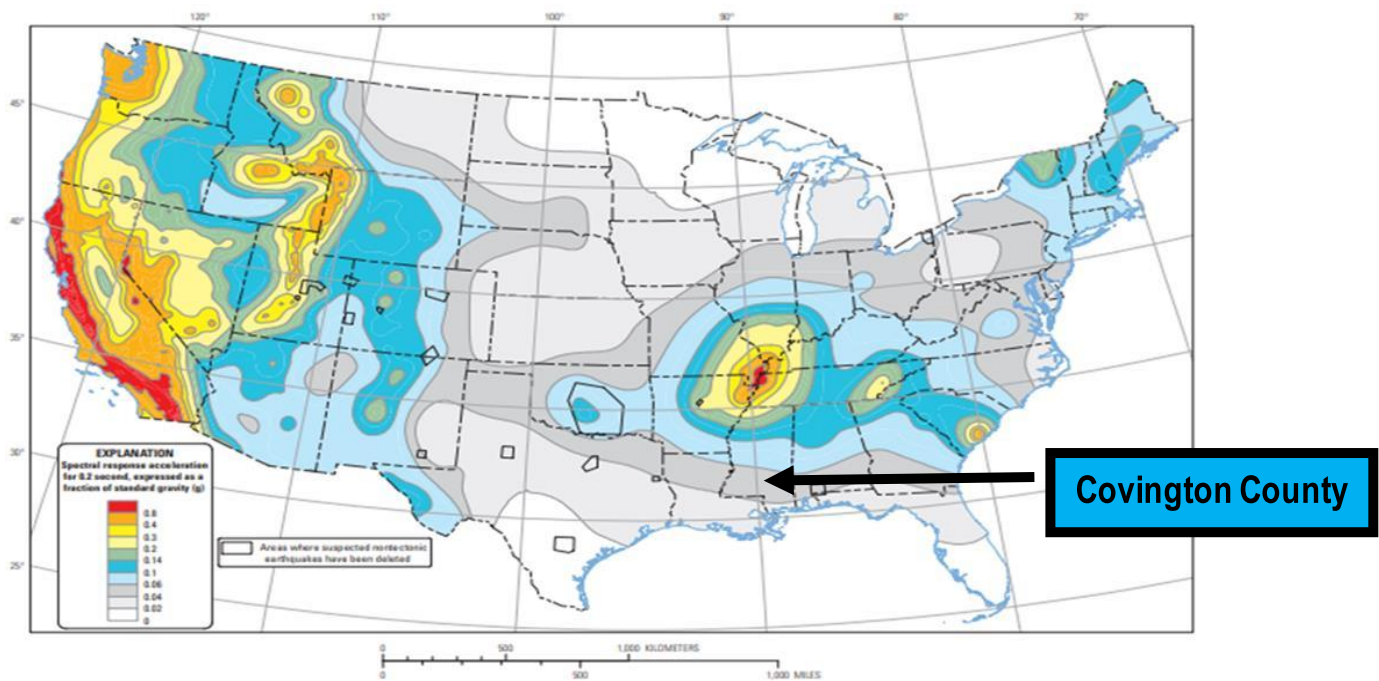
If the predicted increase in heavy rains occur it can also cause flooding and erosion, which can also make the area more susceptible to wildfires.

A.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure A.4 shows the intensity level associated with Covington County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, Covington County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE A.4: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS



HISTORICAL OCCURRENCES

One earthquake is known to have affected Covington County since 1638. It occurred in Collins on January 20, 2021, was a MMI of II (2.1), and was felt. **Table A.14** provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 and 2024.

TABLE A.14: SUMMARY OF SEISMIC ACTIVITY IN COVINGTON COUNTY

Location	Date	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
Collins	1/20/2021	1	II	2.1
Mounty Olive	--	0	--	--
Seminary	--	0	--	--
Unincorporated Area	--	0	--	--
Covington County Total:		1	--	--

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Covington County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the county is estimated to be less than 1 percent (unlikely).

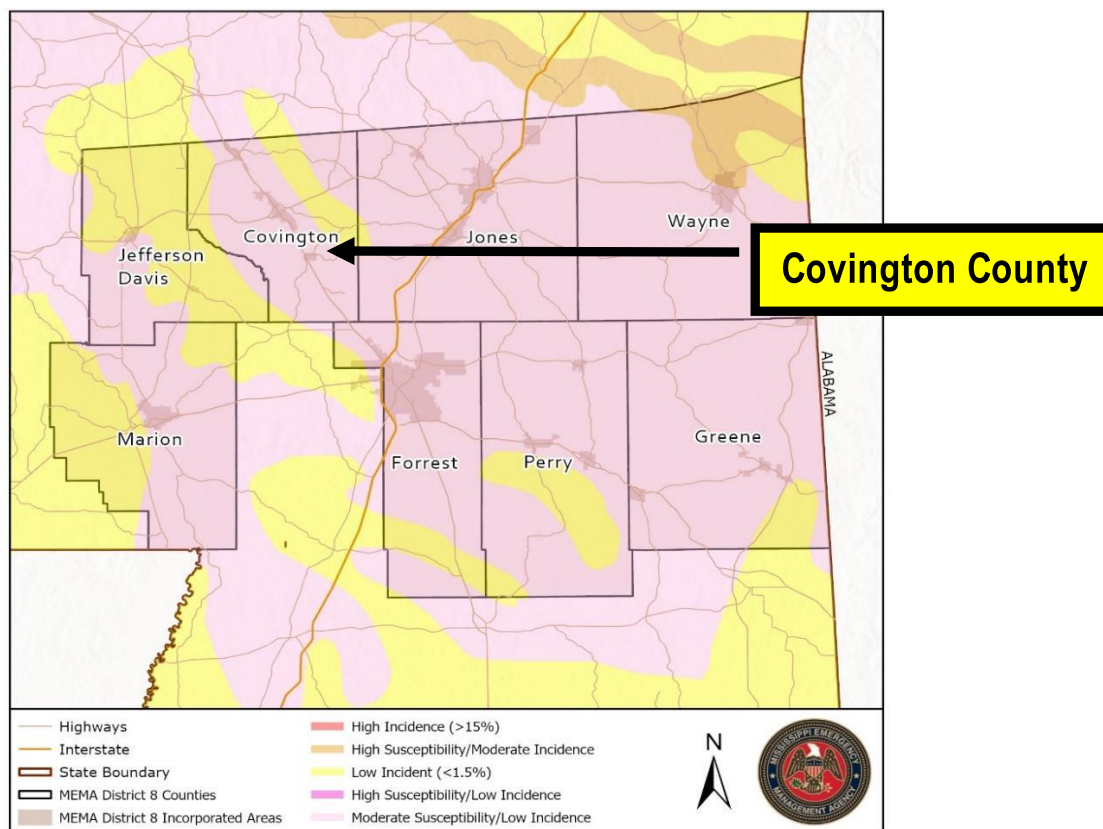
A.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. The most frequent and widespread damaging landslides in the U.S. are induced by prolonged or heavy rainfall. The majority of rainfall-induced landslides are shallow, small, and move quickly. Landslides are possible throughout Covington County.

According to **Figure A.5** below, the entire county falls under a low incidence area (yellow) and moderate susceptibility (light pink). This indicates that less than 1.5 percent of the area is involved in land sliding. The areas in yellow are defined as low incidence and low susceptibility. The areas in light pink, however, indicate that a moderate susceptibility to land sliding activity is present. There are no changes with susceptibility to the landslide hazard since the last plan update.

FIGURE A.5: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF COVINGTON COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Covington County. Landslide events typically occur in isolated areas. NCDI does not show any landslide events for Covington County.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that all areas in Covington County have a low landslide incidence rate. However, some areas are reported as having moderate susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Covington County have greater risk than others given factors such as steepness on slope and modification of slopes.

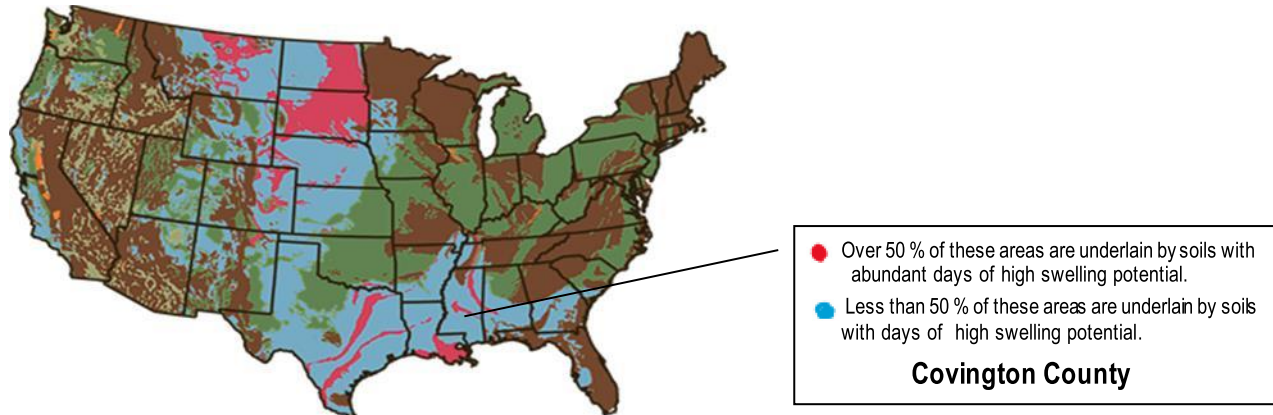
As the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

A.2.9 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Covington County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure A.6**. Covington County is located in the blue area, which is underlain with generally less than 50 percent clay having high swelling potential.

FIGURE A.6: SWELLING CLAYS IN MISSISSIPPI



HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Covington County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

A.2.10 Hurricane and Tropical Storm

LOCATION AND SPATIAL EXTENT

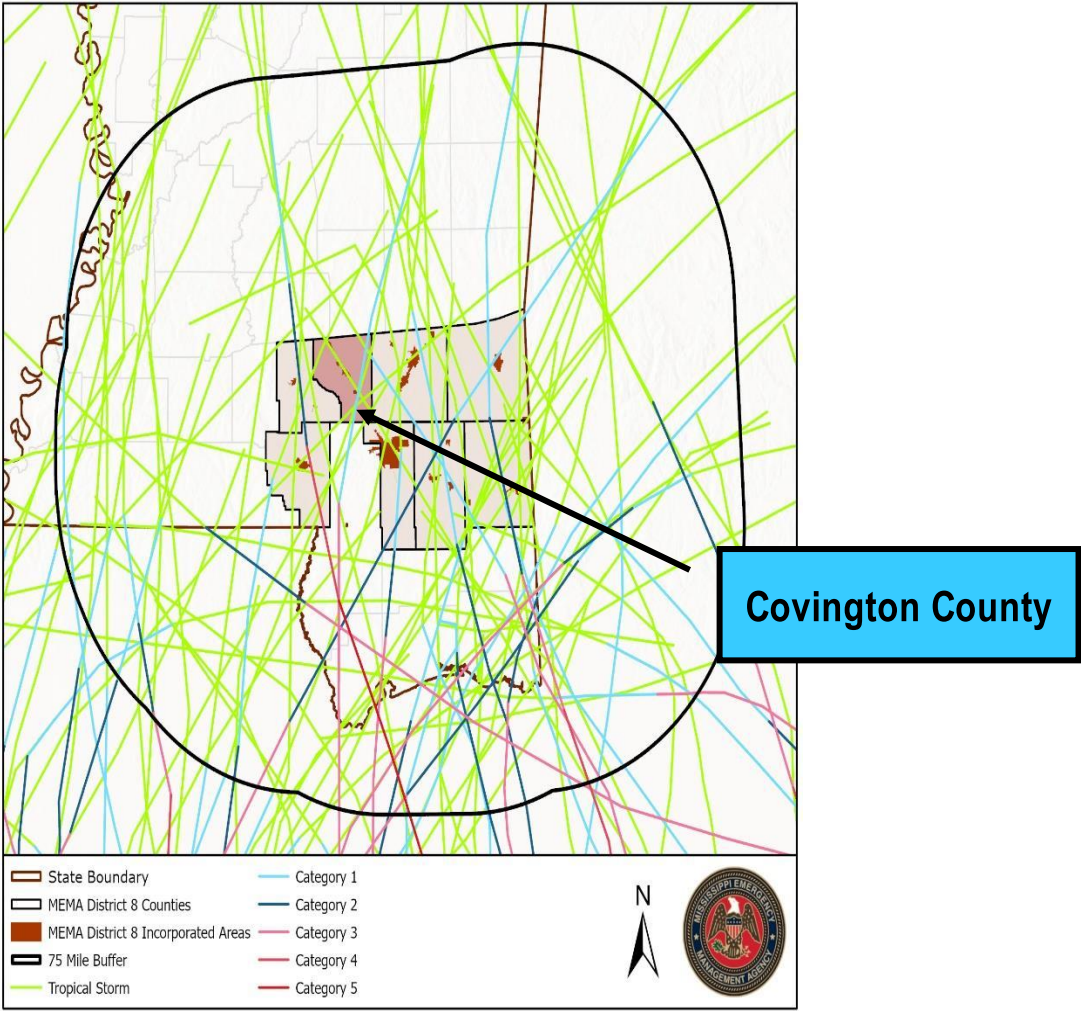
Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Covington County. All areas in Covington County are equally susceptible to hurricane and tropical storms.

HISTORICAL OCCURRENCES

According to the National Hurricane Center’s historical storm track records, a total of 54 hurricanes have passed within 75 miles of Covington County since 1851. This includes 1 category 5 storm, 0 category 4 storms, 7 category 3 storms, 7 category 2 storms, 7 category 1 storms, and 32 tropical storms as shown in **Figure A.7**.

Of the recorded storm events, a total of eight tracks passed directly through the county including Hurricanes Katrina (2005) and Ida (2023). All storms were tropical storms when they traversed the county except Hurricane Katrina, which passed through the county as category 1 hurricane. **Table A.15** provides the detail for each storm that passed through the county including date of occurrence, name (if applicable), maximum wind speed (as recorded when traversing the county) and category of the storm based on the Saffir-Simpson Scale.

FIGURE D.8: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF JEFFERSON DAVIS COUNTY



There has been 8 Disaster Declaration in Covington County due to hurricane damage: In 1969 Disaster Declaration 271 for Hurricane Camille, Declaration 599 in 1979 for damage due to Hurricane Frederic, Declaration 1251 in 1998 for Hurricane Georges, Declaration 1550 in 2004 for damage due to Hurricane Ivan, Declarations 1594 and 1604 in 2005 for Hurricanes Dennis and Katrina, Declaration 4081 in 2012 for Hurricane Isaac, and Declaration 4626 in 2021 for Hurricane Ida.

TABLE A.15: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF COVINGTON COUNTY

Date of Occurrence	Storm Name	Maximum Wind Speed (mph)	Storm Category	Disaster Declaration	Property Damage	Crop Damage
--------------------	------------	--------------------------	----------------	----------------------	-----------------	-------------

9/8/1893	Unknown	63	Tropical Storm	--	Unknown	Unknown
6/13/1912	Unknown	57	Tropical Storm	--	Unknown	Unknown
9/30/1913	Unknown	69	Tropical Storm	--	Unknown	Unknown
7/6/1916	Unknown	63	Tropical Storm	--	Unknown	Unknown
7/27/1936	Unknown	40	Tropical Storm	--	Unknown	Unknown
9/4/1969	Hurricane Camille	57	Tropical Storm	Yes, #271	Unknown	Unknown
8/30/1979	Hurricane Fredrick	Unknown	Tropical Storm	Yes, # 599	Unknown	Unknown
9/1998	Hurricane Georges	Unknown	Tropical Storm	Yes, #1251	Unknown	Unknown
10/3/2002	Hurricane Lili	56	Tropical Storm	No	Unknown	Unknown
6/30/2003	Hurricane Bill	52	Tropical Storm	No	\$0	\$0
9/16/2004	Hurricane Ivan	45	Tropical Storm	Yes, #1550	\$93,750	\$31,300
7/10/2005	Hurricane Dennis	55	Tropical Storm	Yes, 1594	Unknown	Unknown
8/29/2005	Hurricane Katrina	92	Category 1	Yes, #1604	\$200,000,000	\$50,000,000
8/29/2012	Hurricane Isaac	45	Tropical Storm	Yes, 4081	\$100,000	\$0
9/5/2018	Hurricane Gordon	50	Depression	No	\$15,000	\$0
8/30/2021	Hurricane Ida	50	Tropical Storm	Yes, #4626	\$50,000	\$0
9/12/2024	TS Francine	40	Tropical Storm	No	15,000	\$0
Total:	17	--	--		\$200,273,750	\$50,031,300

Source: National Hurricane Center and NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted that area as found below:

Hurricane Lili – October 3, 2002—Hurricane Lili brought thunderstorm bands, strong winds, and associated tornadoes that created damage across central Mississippi. Most of the damage was caused by downed trees. The highest actual wind gust was measured at 56 miles per hour. Ground over most of the area was saturated from the combined rainfall of Lili and Isidore (which affected the same areas a week earlier), and this allowed tropical storm force winds to easily push down trees area-wide. Rainfall amounts were over 3 inches in the most persistent rainbands. Estimated damage across central Mississippi from Lili was \$500,000.

Hurricane Ivan – September 16, 2004—Thousands of trees were blown down across Eastern Mississippi during the event as well as hundreds of power lines. The strong wind itself did not cause much structural damage, however the fallen trees did. These downed trees accounted for several hundred homes, mobile homes and businesses to be damaged or destroyed. Most locations across Eastern Mississippi reported sustained winds between 30 and 40 mph with Tropical Storm force gusts between 48 and 54 mph. The strongest reported winds occurred in Newton, Lauderdale and Oktibbeha Counties.

Overall, rainfall totals were held in check as Ivan steadily moved north. The heaviest rains were confined to far Eastern Mississippi where 3 to 4 inches fell over a 15-hour period. Due to the duration of the rain no flooding was reported. Across Eastern Mississippi, Hurricane Ivan was responsible for one fatality. This fatality occurred in Brooksville (Noxubee County) when a tree fell on a man. Damage from Ivan was estimated at \$200 million.

Hurricane Katrina – August 25, 2005—Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20.

Devastation from Hurricane Katrina was widespread across the region. Hurricane force winds were common across the area. The region received sustained winds of 60-80 mph with gusts ranging from 80-120 mph.

There was widespread damage to trees and power lines. Wind damage to structures was also widespread, with roofs blown off or partially peeled. Hundreds of signs were shredded or blown down. Businesses sustained structural damage. Power outages lasted from a few days to as long as four weeks.

Agriculture and timber industries were severely impacted. Row crops, including cotton, rice, corn, and soybeans, took a hard hit. Other impacted industries were the catfish industry, dairy and cattle industry, and nursery businesses.

Hurricane Gordon (Tropical Depression) – September 9, 2018—As Tropical Storm Gordon moved further inland, it was downgraded to a tropical depression. Gusty winds still occurred as the center moved through central Mississippi. A few trees were blown down across portions of Covington County.

August 30, 2021 – Hurricane Ida—Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30. It then turned northeast and moved across the Jackson metro area as a tropical storm and into northeast Mississippi as a tropical depression through the early morning of August 31. Ida brought tropical storm force gusts to portions of Mississippi, which brought down trees and power lines. Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding. Tropical storm force wind gusts resulted in several downed trees across the county.

September 12, 2024—Tropical Storm Francine produced strong wind damage as it weakened across central Mississippi. Winds blew down scattered trees and powerlines across Covington County.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 percent). Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientists predict that hurricanes could increase in frequency and strength in the near future due the effects of Climate Change. This can be seen in the 2023 season with 23 named storms, 11 hurricanes, and 5 major hurricanes. This prediction makes the season the third most active season on record, behind the 2005 season with 28, and the 2020 season with a total of 30. It is expected that an above-average season next season with up to 25 named storms and 4-7 major hurricanes.

A.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Covington County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Covington County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Covington County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Covington County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in eight disaster declarations in Covington County in 1974, 1983, 1990, 1992, 2016, 2018, twice in 2020, and 2023. According to NCEI, there have been 185 reported thunderstorm and high wind events since 1969 in Covington County. These events caused Almost \$5 million in damages. **Table A.16** summarizes this information. **Table A.17** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE A.16: SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN COVINGTON COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
<i>Collins</i>	55	0	0	\$886,600	\$0
<i>Mount Olive</i>	25	0	0	\$674,000	\$0
<i>Seminary</i>	20	0	0	\$2,202,000	\$0
<i>Unincorporated Area</i>	87	0	0	\$1,062,500	\$0
Covington County Total:	187	0	0	\$4,825,100	\$0

TABLE A.17: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN COVINGTON COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Collins							
<i>Collins</i>	1/9/2000	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Collins</i>	4/3/2000	TSTM Wind	<i>Unknown</i>	0	0	\$8,000	\$0
<i>Collins</i>	8/3/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Collins</i>	1/6/2000	TSTM Wind	<i>Unknown</i>	0	0	\$3,000	\$0
<i>Collins</i>	11/29/2001	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Collins</i>	5/17/2002	TSTM Wind	<i>Unknown</i>	0	0	\$5,000	\$0
<i>Collins</i>	7/7/2002	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Collins</i>	7/8/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Collins</i>	8/3/2002	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Collins</i>	8/25/2002	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Collins</i>	5/17/2003	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Collins</i>	7/17/2003	TSTM Wind	50 kts.	0	0	\$2,000	\$0

Collins	8/3/2003	TSTMWind	50 kts.	0	0	\$2,000	\$0
Collins	11/18/2003	TSTMWind	52 kts.	0	0	\$1,000	\$0
Collins	5/1/2004	TSTMWind	55 kts.	0	0	\$40,000	\$0
Collins	6/1/2004	TSTMWind	50 kts.	0	0	\$0	\$0
Collins	6/3/2004	TSTMWind	52 kts.	0	0	\$3,000	\$0
Collins	6/28/2004	TSTMWind	55 kts.	0	0	\$3,000	\$0
Collins	7/16/2004	TSTMWind	53 kts.	0	0	\$0	\$0
Collins	11/24/2004	TSTMWind	55 kts.	0	0	\$1,000	\$0
Collins	1/7/2005	TSTMWind	66 kts.	0	0	\$500,000	\$0
Collins	1/7/2005	TSTMWind	70 kts.	0	0	\$50,000	\$0
Collins	1/13/2005	TSTMWind	58 kts.	0	0	\$10,000	\$0
Collins	11/15/2005	TSTMWind	50 kts.	0	0	\$0	\$0
Collins	3/20/2006	TSTMWind	58 kts.	0	0	\$0	\$0
Collins	6/23/2006	TSTMWind	50 kts.	0	0	\$10,000	\$0
Collins	7/18/2006	TSTMWind	50 kts.	0	0	\$0	\$0
Collins	8/29/2006	TSTMWind	50 kts.	0	0	\$0	\$0
Collins	2/24/2007	TSTMWind	50 kts.	0	0	\$0	\$0
Collins	4/14/2007	TSTMWind	50 kts.	0	0	\$15,000	\$0
Collins	6/19/2007	TSTMWind	60 kts.	0	0	\$25,000	\$0
Collins	8/10/2007	TSTMWind	50 kts.	0	0	\$0	\$0
Collins	1/29/2008	TSTMWind	55 kts.	0	0	\$0	\$0
Collins	5/3/2008	TSTMWind	50 kts.	0	0	\$0	\$0
Collins	6/15/2008	TSTMWind	52 kts.	0	0	\$20,000	\$0
Collins	4/12/2009	TSTMWind	61 kts.	0	0	\$0	\$0
Collins	5/12/2009	TSTMWind	50 kts.	0	0	\$1,600	\$0
Collins	6/15/2010	TSTMWind	52 kts.	0	0	\$20,000	\$0
Collins	6/17/2010	TSTMWind	58 kts.	0	0	\$25,000	\$0
Collins	8/22/2010	TSTMWind	55 kts.	0	0	\$15,000	\$0
Collins	6/13/2011	TSTMWind	50 kts.	0	0	\$20,000	\$0
Collins	8/21/2011	TSTMWind	50 kts.	0	0	\$1,000	\$0
Collins	8/12/2013	TSTMWind	50 kts.	0	0	\$7,000	\$0
Collins	2/15/2016	TSTMWind	50 kts.	0	0	\$5,000	\$0
Collins	7/11/2016	TSTMWind	60 kts.	0	0	\$35,000	\$0
Collins	11/28/2016	TSTMWind	50 kts.	0	0	\$5,000	\$0
Collins	1/2/2017	TSTMWind	50 kts.	0	0	\$9,000	\$0
Collins	4/18/2017	TSTMWind	50 kts.	0	0	\$4,000	\$0
Collins	9/9/2019	TSTMWind	50 kts.	0	0	\$3,000	\$0
Collins	2/6/2020	TSTMWind	50 kts.	0	0	\$2,000	\$0
Collins	3/4/2020	TSTMWind	53 kts.	0	0	\$5,000	\$0
Collins	3/31/2020	TSTMWind	50 kts.	0	0	\$5,000	\$0
Collins	6/5/2020	TSTMWind	52 kts.	0	0	\$2,000	\$0
Collins	6/25/2020	TSTMWind	50 kts.	0	0	\$7,000	\$0
Collins	5/12/2022	TSTMWind	50 kts.	0	0	\$4,000	\$0
Town of Mount Olive							
Mount Olive	3/10/2000	TSTMWind	Unknown	0	0	\$2,000	\$0
Mount Olive	5/21/2001	TSTMWind	Unknown	0	0	\$1,000	\$0
Mount Olive	5/17/2002	TSTMWind	Unknown	0	0	\$2,000	\$0

Mount Olive	6/2/2003	TSTM Wind	53 kts.	0	0	\$10,000	\$0
Mount Olive	6/27/2004	TSTM Wind	53 kts.	0	0	\$1,000	\$0
Mount Olive	4/30/2005	TSTM Wind	55 kts.	0	0	\$4,000	\$0
Mount Olive	3/9/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
Mount Olive	5/10/2006	TSTM Wind	52 kts.	0	0	\$0	\$0
Mount Olive	1/4/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
Mount Olive	8/27/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
Mount Olive	2/12/2008	TSTM Wind	60 kts.	0	0	\$70,000	\$0
Mount Olive	5/3/2009	TSTM Wind	65 kts.	0	0	\$200,000	\$0
Mount Olive	8/15/2010	TSTM Wind	53 kts.	0	0	\$15,000	\$0
Mount Olive	5/31/2012	TSTM Wind	50 kts.	0	0	\$15,000	\$0
Mount Olive	8/12/2013	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Mount Olive	9/2/2014	TSTM Wind	43 kts.	0	0	\$1,000	\$0
Mount Olive	7/4/2015	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Mount Olive	1/2/2017	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Mount Olive	4/14/2018	TSTM Wind	50 kts.	0	0	\$20,000	\$0
Mount Olive	5/9/2019	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Mount Olive	1/11/2020	TSTM Wind	52 kts.	0	0	\$4,000	\$0
Mount Olive	3/4/2020	TSTM Wind	60 kts.	0	0	\$120,000	\$0
Mount Olive	4/22/2020	TSTM Wind	87 kts.	0	0	\$150,000	\$0
Mount Olive	4/13/2022	TSTM Wind	65 kts.	0	0	\$30,000	\$0
Mount Olive	7/18/2024	TSTM Wind	52 kts.	0	0	\$4,000	\$0
Town of Seminary							
Seminary	8/31/2000	TSTM Wind	Unknown	0	0	\$17,000	\$0
Seminary	12/13/2000	TSTM Wind	52 kts.	0	0	\$1,000	\$0
Seminary	3/12/2001	TSTM Wind	Unknown	0	0	\$5,000	\$0
Seminary	6/4/2001	TSTM Wind	Unknown	0	0	\$1,000	\$0
Seminary	11/24/2004	TSTM Wind	55kts.	0	0	\$1,000	\$0
Seminary	1/7/2005	TSTM Wind	62 kts.	0	0	\$10,000	\$0
Seminary	2/13/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
Seminary	8/12/2013	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Seminary	6/13/2014	TSTM Wind	50 kts.	0	0	\$0	\$0
Seminary	1/21/2017	TSTM Wind	60 kts.	0	0	\$35,000	\$0
Seminary	6/16/2017	TSTM Wind	60 kts.	0	0	\$5,000	\$0
Seminary	4/14/2018	TSTM Wind	52 kts.	0	0	\$3,000	\$0
Seminary	8/7/2018	TSTM Wind	50 kts.	0	0	\$20,000	\$0
Seminary	4/13/2019	TSTM Wind	53 kts.	0	0	\$15,000	\$0
Seminary	6/5/2020	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Seminary	8/16/2020	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Seminary	5/5/2023	TSTM Wind	87 kts.	0	0	\$2,000,000	\$0
Seminary	6/14/2023	TSTM Wind	75 kts.	0	0	\$50,000	\$0
Seminary	6/16/2023	TSTM Wind	65 kts.	0	0	\$20,000	\$0
Seminary	6/4/2024	TSTM Wind	52 kts.	0	0	\$5,000	\$0
Unincorporated Area in Covington County							
Williamsburg	1/13/2000	TSTM Wind	Unknown	0	0	\$2,000	\$0
Williamsburg	7/18/2000	TSTM Wind	Unknown	0	0	\$20,000	\$0

Countywide	7/22/2000	TSTM Wind	Unknown	0	0	\$5,000	\$0
Countywide	8/10/2000	TSTM Wind	Unknown	0	0	\$5,000	\$0
Sanford	1/19/2001	TSTM Wind	Unknown	0	0	\$1,000	\$0
Countywide	1/29/2001	TSTM Wind	Unknown	0	0	\$8,000	\$0
Sanford	2/16/2001	TSTM Wind	Unknown	0	0	\$1,000	\$0
Sanford	3/12/2001	TSTM Wind	Unknown	0	0	\$5,000	\$0
Hot Coffee	6/13/2001	TSTM Wind	Unknown	0	0	\$1,000	\$0
Countywide	10/13/2001	TSTM Wind	Unknown	0	0	\$1,000	\$0
Countywide	4/8/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
Countywide	10/3/2002	TSTM Wind	Unknown	0	0	\$3,000	\$0
Countywide	4/6/2003	TSTM Wind	55 kts.	0	0	\$15,000	\$0
Countywide	11/27/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Williamsburg	11/24/2004	TSTM Wind	55 kts.	0	0	\$1,000	\$0
Sanford	3/22/2005	TSTM Wind	67 kts.	0	0	\$15,000	\$0
Sanford	7/21/2005	TSTM Wind	53 kts.	0	0	\$0	\$0
Hot Coffee	7/30/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
Sanford	9/23/2006	TSTM Wind	53 kts.	0	0	\$15,000	\$0
Sanford	11/15/2006	TSTM Wind	57 kts.	0	0	\$0	\$0
Williamsburg	1/29/2008	TSTM Wind	55 kts.	0	0	\$0	\$0
Gandsi	2/12/2008	TSTM Wind	70 kts.	0	0	\$75,000	\$0
Sanford	6/17/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
Hot Coffee	6/25/2008	TSTM Wind	60 kts.	0	0	\$2,000	\$0
Arbo	8/2/2008	TSTM Wind	60 kts.	0	0	\$0	\$0
Pickering	8/7/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
Smith	4/12/2009	TSTM Wind	55 kts.	0	0	\$0	\$0
Williamsburg	5/3/2009	TSTM Wind	60 kts.	0	0	\$50,000	\$0
Lux	5/5/2009	TSTM Wind	50 kts.	0	0	\$500	\$0
Pickering	12/9/2009	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Gandsi	6/17/2010	TSTM Wind	52 kts.	0	0	\$25,000	\$0
Hot Coffee	6/17/2010	TSTM Wind	63 kts.	0	0	\$45,000	\$0
Smith	2/1/2011	TSTM Wind	50 kts.	0	0	\$0	\$0
Gandsi	4/4/2011	TSTM Wind	62 kts.	0	0	\$55,000	\$0
County	4/2/2012	Strong Wind	43 kts.	0	0	\$1,000	\$0
Hot Coffee	6/11/2012	TSTM Wind	50 kts.	0	0	\$15,000	\$0
Pickering	8/9/2012	TSTM Wind	50 kts.	0	0	\$0	\$0
Williamsburg	8/15/2012	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Hot Coffee	12/20/2012	TSTM Wind	50 kts.	0	0	\$1,000	\$0
County	2/20/2014	Strong Wind	43 kts.	0	0	\$1,000	\$0
County	2/21/2014	Strong Wind	45 kts.	0	0	\$40,000	\$0
Hot Coffee	4/28/2014	TSTM Wind	55 kts.	0	0	\$13,000	\$0
Hot Coffee	6/28/2014	TSTM Wind	35 kts.	0	0	\$5,000	\$0
County	8/3/2014	Strong Wind	40 kts.	0	0	\$3,000	\$0
Gandsi	8/9/2014	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Sanford	10/13/2014	TSTM Wind	50 kts.	0	0	\$0	\$0
Smith	1/3/2015	TSTM Wind	52 kts.	0	0	\$10,000	\$0
Williamsburg	5/20/2015	TSTM Wind	52 kts.	0	0	\$6,000	\$0
Gandsi	6/13/2015	TSTM Wind	55 kts.	0	0	\$25,000	\$0
Arbo	6/24/2015	TSTM Wind	50 kts.	0	0	\$10,000	\$0

Williamsburg	6/24/2015	TSTM Wind	50 kts.	0	0	\$6,000	\$0
County	11/17/2015	Strong Wind	42 kts.	0	0	\$10,000	\$0
County	2/2/2016	Strong Wind	35 kts.	0	0	\$3,000	\$0
Gandsi	2/15/2016	TSTM Wind	50 kts.	0	0	\$7,000	\$0
Pickering	9/25/2016	TSTM Wind	50 kts.	0	0	\$8,000	\$0
County	11/28/2016	Strong Wind	35 kts.	0	0	\$5,000	\$0
Hot Coffee	1/2/2017	TSTM Wind	55 kts.	0	0	\$20,000	\$0
Gandsi	1/21/2017	TSTM Wind	55 kts.	0	0	\$20,000	\$0
Hot Coffee	6/16/2017	TSTM Wind	55 kts.	0	0	\$60,000	\$0
Smith	6/16/2017	TSTM Wind	65 kts.	0	0	\$50,000	\$0
County	6/22/2017	Strong Wind	35 kts.	0	0	\$7,000	\$0
Gandsi	9/23/2017	TSTM Wind	60 kts.	0	0	\$75,000	\$0
Ora	9/23/2017	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Gandsi	8/16/2018	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Smith	11/1/2018	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Williamsburg	4/13/2019	TSTM Wind	50 kts.	0	0	\$15,000	\$0
Gandsi	4/13/2019	TSTM Wind	50 kts.	0	0	\$20,000	\$0
Grandsi	4/18/2019	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Hot Coffee	5/11/2019	TSTM Wind	50 kts.	0	0	\$9,000	\$0
Sanford	6/7/2019	TSTM Wind	52 kts.	0	0	\$7,000	\$0
Ora	10/26/2019	TSTM Wind	55 kts.	0	0	\$25,000	\$0
Ora	1/11/2020	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Grandsi	1/11/2020	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Williamsburg	3/4/2020	TSTM Wind	55 kts.	0	0	\$5,000	\$0
County	4/28/2020	Strong Wind	43 kts.	0	0	\$8,000	\$0
Williamsburg	6/23/2020	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Williamsburg	8/16/2020	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Arbo	12/24/2020	TSTM Wind	60 kts.	0	0	\$15,000	\$0
Smith	12/24/2020	TSTM Wind	55 kts.	0	0	\$25,000	\$0
Williamsburg	3/17/2021	TSTM Wind	52 kts.	0	0	\$10,000	\$0
Ora	3/18/2022	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Hot Coffee	4/13/2022	TSTM Wind	78 kts.	0	0	\$2,000	\$0
Hot Coffee	5/12/2022	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Williamsburg	5/5/2023	TSTM Wind	70 kts.	0	0	\$80,000	\$0
Sanford	5/5/2023	TSTM Wind	52 kts.	0	0	\$3,000	\$0
Hot Coffee	1/25/2024	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Smith	6/4/2024	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Jaycee ARPT	8/16/2024	TSTM Wind	62 kts.	0	0	\$25,000	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 52 recorded hailstorm events have affected Covington County since 2000. **Table A.18** is a summary of the hail events in Covington County. **Table A.19** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$1.5M in property damages. Hail ranged in diameter from 0.75 inches to 2.75 inches.

It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value.

Lightning

According to the National Centers for Environmental Information, there have been three recorded lightning events in Covington County since 1950, as listed in summary **Table A.19**. However, it is likely that more lightning events have in fact impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported.

TABLE A.18: SUMMARY OF LIGHTNING AND HAIL OCCURRENCES IN COVINGTON COUNTY 2000-2024

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Collins</i>	10	0	0	\$536,000	\$0
<i>Mount Olive</i>	10	0	0	\$156,000	\$0
<i>Seminary</i>	13	0	0	\$792,000	\$0
<i>Unincorporated Area</i>	20	0	0	\$77,000	\$0
County Total:	53	0	0	\$1,561,000	\$0

Source: NCED/NOAA

TABLE A.19: HISTORICAL LIGHTNING AND HAIL OCCURRENCES IN COVINGTON COUNTY 2000-2024

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Collins							
<i>Collins</i>	3/10/2000	Hail	1.75 in.	0	0	\$10,000	\$0
<i>Collins</i>	3/10/2000	Hail	1 in.	0	0	\$0	\$0
<i>Collins</i>	8/20/2003	Hail	0.75 in.	0	0	\$1,000	\$0
<i>Collins</i>	3/30/2005	Hail	0.75 in.	0	0	\$0	\$0
<i>Collins</i>	12/4/2005	Hail	0.75 in.	0	0	\$0	\$0
<i>Collins</i>	6/7/2011	Hail	1 in.	0	0	\$20,000	\$0
<i>Collins</i>	1/8/2012	Hail	1.25 in.	0	0	\$5,000	\$0
<i>Collins</i>	7/11/2016	Hail	0.88 in.	0	0	\$0	\$0
<i>Collins</i>	2/19/2019	Hail	0.88 in.	0	0	\$0	\$0
<i>Collins</i>	6/14/2023	Hail	1.50 in.	0	0	\$500,000	\$0
Town of Mount Olive							
<i>Mount Olive</i>	4/2/2000	Hail	0.75 in.	0	0	\$0	\$0
<i>Mount Olive</i>	4/25/2003	Hail	1.75 in.	0	0	\$10,000	\$0
<i>Mount Olive</i>	6/15/2003	Hail	0.75 in.	0	0	\$1,000	\$0
<i>Mount Olive</i>	4/6/2005	Hail	1 in.	0	0	\$0	\$0
<i>Mount Olive</i>	4/6/2005	Hail	1.75 in.	0	0	\$20,000	\$0
<i>Mount Olive</i>	2/3/2006	Hail	1 in.	0	0	\$0	\$0
<i>Mount Olive</i>	5/10/2006	Hail	0.75 in.	0	0	\$0	\$0
<i>Mount Olive</i>	4/23/2010	Hail	1 in.	0	0	\$0	\$0
<i>Mount Olive</i>	3/25/2021	Hail	2.75 in.	0	0	\$25,000	\$0
<i>Mount Olive</i>	5/9/2024	Hail	1.00 in.	0	0	\$100,000	\$0

Town of Seminary							
Seminary	5/3/2003	Hail	1 in.	0	0	\$1,000	\$0
Seminary	5/17/2003	Hail	0.75 in.	0	0	\$1,000	\$0
Seminary	3/26/2005	Hail	2.75 in.	0	0	\$200,000	\$0
Seminary	2/3/2006	Hail	1 in.	0	0	\$0	\$0
Seminary	5/8/2006	Hail	0.75 in.	0	0	\$0	\$0
Seminary	1/10/2008	Hail	0.75 in.	0	0	\$0	\$0
Seminary	6/20/2008	Hail	0.75 in.	0	0	\$0	\$0
Seminary	1/3/2009	Hail	0.75 in.	0	0	\$0	\$0
Seminary	1/20/2010	Hail	1 in.	0	0	\$25,000	\$0
Seminary	3/18/2013	Hail	2.50 in.	0	0	\$50,000	\$0
Seminary	4/7/2014	Lightning	--	0	0	\$15,000	\$0
Seminary	3/17/2016	Hail	0.88 in.	0	0	\$0	\$0
Seminary	4/17/2022	Hail	1.75 in.	0	0	\$500,000	\$0
Unincorporated Area in Covington County							
Hot Coffee	4/24/2003	Hail	0.75 in.	0	0	\$1,000	\$0
Hot Coffee	4/25/2003	Hail	1.50 in.	0	0	\$5,000	\$0
Sanford	5/3/2003	Hail	1 in.	0	0	\$1,000	\$0
Hot Coffee	4/22/2005	Hail	2.50 in.	0	0	\$50,000	\$0
Sanford	4/22/2005	Hail	0.88 in.	0	0	\$0	\$0
Hot Coffee	3/20/2006	Hail	0.88 in.	0	0	\$0	\$0
Sanford	5/8/2006	Hail	1 in.	0	0	\$0	\$0
Hot Coffee	7/19/2006	Hail	0.75 in.	0	0	\$0	\$0
Sanford	1/10/2008	Hail	1.75 in.	0	0	\$0	\$0
Sanford	6/17/2008	Hail	0.75 in.	0	0	\$0	\$0
Hot Coffee	6/25/2008	Hail	0.75 in.	0	0	\$0	\$0
Williamsburg	12/9/2008	Hail	0.75 in.	0	0	\$0	\$0
Williamsburg	12/9/2008	Hail	0.88 in.	0	0	\$0	\$0
Williamsburg	5/12/2009	Hail	0.75 in.	0	0	\$0	\$0
Sanford	2/22/2013	Hail	0.75 in.	0	0	\$0	\$0
Smith	8/3/2014	Hail	1 in.	0	0	\$0	\$0
Hot Coffee	3/18/2015	Hail	1 in.	0	0	\$0	\$0
Arbo	6/24/2015	Lightning	--	0	0	\$5,000	\$0
Gandsi	9/23/2017	Lightning	--	0	0	\$15,000	\$0
Pickering	12/16/2019	Hail	1 in.	0	0	\$0	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Covington County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there were no historical lightning events reported in Covington County via NCEI data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), Covington County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year. Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county in crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

A.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Covington County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that

are more susceptible to tornado strikes over time. Therefore, it is assumed that Covington County is uniformly exposed to this hazard.

HISTORICAL OCCURRENCES

Tornadoes resulted in seven disaster declarations in Covington County in 1983, 1990, 1992, 2018, twice in 2020, and in 2023. According to the National Centers for Environmental Information, there have been a total of 33 recorded tornado events in Covington County since 2000 (**Table A.20**), resulting in over \$38 million in property damages. In addition, 17 injuries were reported. Additionally, there was a tornado on November 21, 1992, was one of the costliest tornadoes in the county. The tornado was a EF4, which left 100 citizens injured and almost \$45 million in damages. The magnitude of these tornadoes ranges from F0 to EF4 in intensity, although an F5 event is possible. Detailed information on historic tornado events can be found in **Table A.21**.

TABLE A.20: SUMMARY OF TORNADO OCCURRENCES IN COVINGTON COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Collins</i>	4	0	0	\$780,000	\$0
<i>Mount Olive</i>	5	0	0	\$240,000	\$0
<i>Seminary</i>	2	0	0	\$102,000	\$0
<i>Unincorporated Area</i>	22	0	17	\$37,418,000	\$4,800,000
Covington County Total:	33	0	17	\$38,540,000	\$4,800,000

Source: NCED/NOAA

TABLE A.21: HISTORICAL TORNADO IMPACTS IN COVINGTON COUNTY

Location	Date	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Collins						
<i>Collins</i>	5/1/2004	F1	0	0	\$10,000	\$0
<i>Collins</i>	5/1/2004	F1	0	0	\$25,000	\$0
<i>Collins</i>	12/20/2007	EF1	0	0	\$700,000	\$0
<i>Collins</i>	4/26/2011	EF1	0	0	\$45,000	\$0
Town of Mount Olive						
<i>Mount Olive</i>	4/6/2005	F0	0	0	\$10,000	\$0
<i>Mount Olive</i>	5/3/2009	EF1	0	0	\$10,000	\$0
<i>Mount Olive</i>	5/3/2009	EF1	0	0	\$120,000	\$0
<i>Mount Olive</i>	4/6/2018	EF1	0	0	\$50,000	\$0
<i>Mount Olive</i>	4/5/2022	EF1	0	0	\$50,000	\$0
Town of Seminary						
<i>Seminary</i>	11/27/2003	F0	0	0	\$2,000	\$0
<i>Seminary</i>	12/28/2016	EF1	0	0	\$100,000	\$0
Unincorporated Area in Covington County						
<i>Hot Coffee</i>	4/30/2005	F0	0	0	\$50,000	\$0
<i>Hot Coffee</i>	3/30/2006	F0	0	0	\$0	\$0
<i>Hot Coffee</i>	12/20/2007	EF1	0	0	\$80,000	\$0
<i>Arbo</i>	2/12/2008	EF1	0	0	\$200,000	\$0
<i>Hot Coffee</i>	9/2/2008	EF1	0	0	\$425,000	\$0

Williamsburg	9/4/2011	EF1	0	0	\$25,000	\$0
Williamsburg	2/21/2013	EF0	0	0	\$15,000	\$0
Williamsburg	4/7/2014	EF2	0	8	\$2,000,000	\$0
Arbo	1/3/2015	EF1	0	0	\$20,000	\$0
Arbo	1/3/2015	EF1	0	0	\$40,000	\$0
Williamsburg	8/17/2015	EF0	0	0	\$15,000	\$0
Arbo	1/2/2017	EF2	0	0	\$100,000	\$0
Hot Coffee	1/22/2018	EF1	0	1	\$30,000	\$0
Ora	4/6/2018	EF1	0	0	\$30,000	\$0
Smith	4/13/2019	EF1	0	2	\$50,000	\$0
Sanford	12/16/2019	EF1	0	0	\$10,000	\$0
Williamsburg	3/4/2020	EF0	0	0	\$25,000	\$0
Williamsburg	4/12/2020	EF4	0	5	\$25,900,000	\$3,600,000
Williamsburg	4/12/2020	EF3	0	1	\$8,300,000	\$1,200,000
Smith	12/24/2020	EF1	0	0	\$18,000	\$0
Lux	3/30/2021	EF0	0	0	\$5,000	\$0
Arbo	4/5/2022	EF1	0	0	\$80,000	\$0

Source: NCED/NOAA

Anecdotes are available from NCEI for the major storms that have impacted that area as found below:

December 20, 2007—This tornado touched down just south of Collins to just southeast of the Highway 84 and 37 intersection. The damage began on the south side of Collins where a billboard was blown over and a warehouse building was destroyed. Numerous trees were uprooted and snapped as the tornado tracked east-northeast. The tornado reached its peak intensity and maximum width along Dennis Knight Road. Here, numerous large trees were snapped and uprooted including a swath where a large majority of the trees were snapped off. The tornado continued moving east-northeast, where the roof of a chicken house was completely removed and caused minor to moderate roof damage to two homes

April 7, 2014—This tornado touched down just to the west of Sunset-Williamsburg Rd. Several trees were snapped at this location. The tornado moved northeast where it crossed Sunset Rd and Rock Hill Rd. Snapped & uprooted trees were the main damage. As the tornado neared and crossed Highway 49, the intensity increased to a high-end EF-1.

Multiple power lines were downed along with numerous trees, two homes had minor damage along Rock Hill Rd. A home had a portion of the roof removed along Highway 49. As the tornado crossed Byrd Town Rd, more high-end tree damage occurred with some minor damage to a home and a couple mobile homes. Several sheds and carports were destroyed here as well. The tornado increased in intensity to a low-end EF-2 as it crossed George Speed Rd. Here significant tree damage was noted with hundreds of snapped or uprooted pines and hardwoods. A few homes had minor damage as they were on the edges of the tornadic circulation. The tornado weakened some as it moved just north of Jones Chapel Rd and across Highway 532. The tornado increased and reached peak intensity, EF-2 (125 mph), as it crossed Vester Pickering Rd. Three mobile homes were destroyed with one well-built brick home having the roof entirely removed. Heavy tree damaged was noted here with power poles and power lines down. Just to the north of Hot Coffee, a large church was heavily damaged with part of the roof removed and some outer brick fallen off the outer wall. Five other brick buildings had minor/major roof damage along with the windows blown out. Dozens of trees were snapped and uprooted here and along Highway 35.

The tornado continued to the northeast toward the Leaf River where more trees were snapped and downed. The tornado dissipated just inside Jones County where some trees were damaged. Total path length was 16.5 miles. Maximum winds were around 125 mph.

April 12, 2020—This violent, deadly tornado traveled 68 miles through parts of five counties including southeastern Jefferson Davis, central Covington, northwestern Jones, southeastern Jasper, and western Clarke counties. Locations impacted by this tornado include Bassfield, the areas between Collins and Seminary, Soso, Moss, Heidelberg, and Pachuta. This tornado is preliminarily rated EF4 with an estimated peak wind of 190 MPH east of Bassfield in southwestern Jefferson Davis County. Additional EF4 damage was noted near Soso in Jones County and at Moss in Jasper County. The maximum path width was 2.25 miles in the vicinity of Hughes Road west of Seminary in western Covington County. At this width, the tornado ranks 3rd widest in

the official NOAA United States tornado database behind the El Reno, OK tornado of 2013 (2.6 mi) and the Hallam, NE tornado of 2004 (2.5 mi).

This tornado now ranks as the widest on record in the state of Mississippi, surpassing the Yazoo City, MS tornado of 2010 (1.75 mi). Eight lives were lost in this tornado, and there was an undetermined number of additional injuries. Additional details on the damage path and area of most significant damage follow.

The worst damage occurred along MS Highway 28 where a convenience store was destroyed, and several other cinder block structures were heavily damaged when the storm intensified to low end EF-4. The tornado continued to mow down large swaths of trees and caused major uplift and loss of roofing to numerous homes as it moved northeast toward MS Highway 15. Along Mathews Road numerous mobile homes and several outbuildings were completely destroyed.

The tornado intensified to a low end EF4 as it moved into the Moss community, where winds near 175 mph resulted in widespread devastation. Nearly every structure in the community was damaged with the most significant damage occurring along or near MS Highway 537. About half of the First Baptist Church of Moss was completely leveled. Numerous homes were destroyed or had major roofing loss or uplifted. A small pick-up truck was thrown several hundred yards and completely destroyed. In addition, multiple mobile homes were completely demolished.

As the storm tracked toward I-59 a few miles west of Heidelberg, hundreds of trees were mowed down, outbuildings were destroyed. Several homes and mobile homes had metal roofing peeled back or decking exposed. Large swaths of trees were snapped for several miles including some along I-59 between the Heidelberg and Vossburg exits. Swaths of tree damage continued into the Barnett community. In the town of Pachuta there was scattered tree damage, and the metal roofing was peeled off of a church. About two miles north of Pachuta, the damage became sporadic, and the tornado lifted in a wooded area along County Road 130.

The total path length was 67.43 miles. The maximum estimated wind speed of the tornado was 190mph, while the maximum wind speed in Covington County was 170mph.

PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Covington County. The probability of future tornado occurrences affecting Covington County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

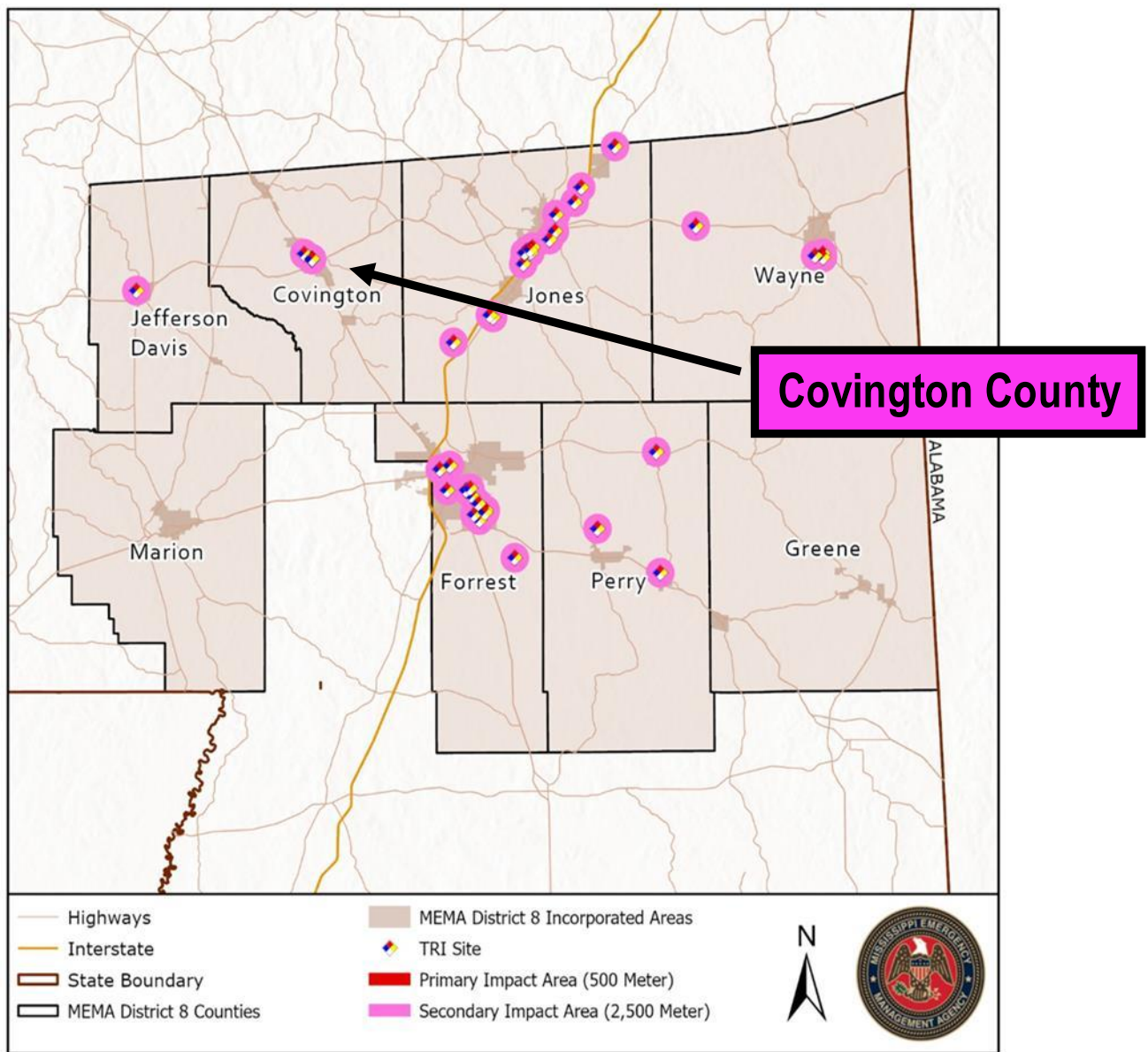
A.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Covington County has four TRI sites. These sites are shown in **Figure A.7**.

FIGURE A.7: TOXIC RELEASE INVENTORY (TRI) SITES IN COVINGTON COUNTY

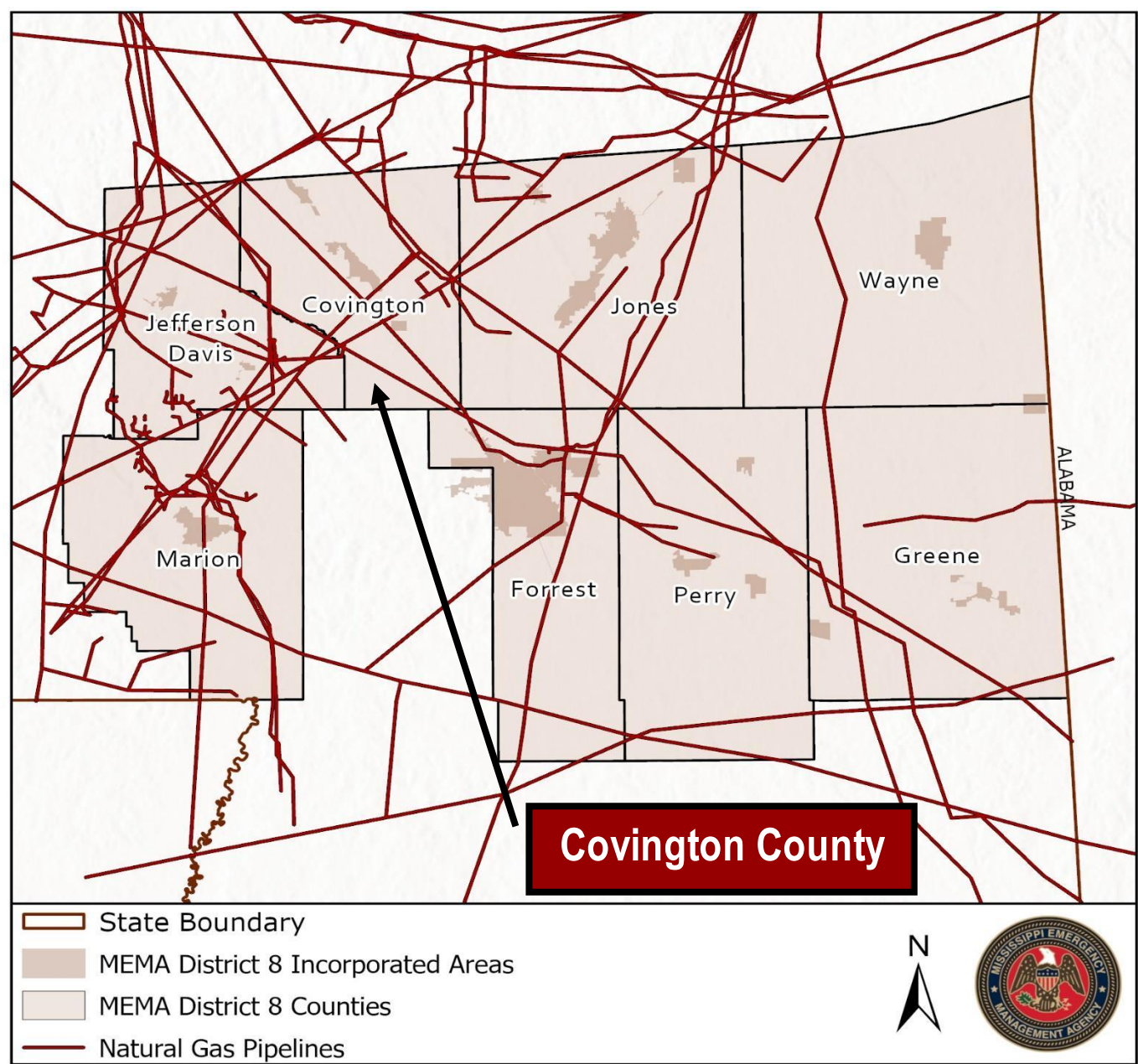


In addition to “fixed” hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

There are two distinct types of pipelines that are used in the transport of potentially hazardous materials, gas lines and hazardous liquid lines. **Figure A.8** shows the trunk lines for each of these material types but does not show the gathering or distribution pipelines. The natural gas lines are in red/maroon.

FIGURE A.9: PIPELINES IN COVINGTON COUNTY



Meth Labs

One of the greatest concerns about meth labs is that they are clandestine in nature. Additionally, once a meth lab has been identified, police authorities generally attempt to eliminate the site as quickly as possible. Therefore, it is nearly impossible to identify specific locations for meth labs and instead, the entire planning area is considered to be at risk to this hazard.

HISTORICAL OCCURRENCES

Hazardous Materials

There has been a total of 24 recorded HAZMAT incidents in Covington County since 1972 (**Table A.22**), resulting in \$19,750 in property damages. In addition, one death was reported. **Table A.23** presents detailed information on historic HAZMAT incidents in Covington County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA). There are no changes to this data since the last plan update.

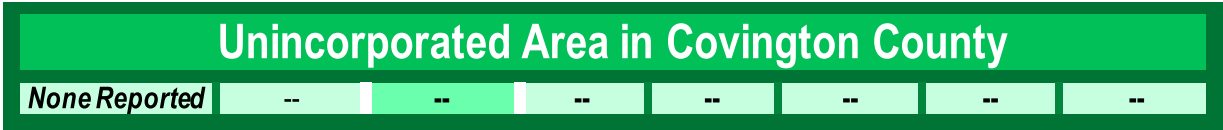
TABLE A.22: SUMMARY OF HAZMAT INCIDENTS IN COVINGTON COUNTY

Location	Number of Occurrences	Deaths/ Injuries	Property Damage
<i>Collins</i>	21	1/0	\$9,650
<i>Mount Olive</i>	3	0/0	\$10,100
<i>Seminary</i>	0	0/0	\$0
<i>Unincorporated Area</i>	0	0/0	\$0
Covington County Total:	24	1/0	\$19,750

Source: USDOT PHMSA

TABLE A.23: HAZMAT INCIDENTS IN COVINGTON COUNTY

Report Number	Date	City	Mode	Serious Incident	Fatalities/ Injuries	Damages	Quantity Released
City of Collins							
I-1972070013	6/24/1972	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1973020096	1/18/1973	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1973110156	10/16/1973	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1974010238	1/3/1974	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1974050260	4/26/1974	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1974070383	6/12/1974	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1975020457	12/20/1974	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1976030757	3/6/1976	<i>Collins</i>	Highway	No	0/0	\$0	50 LGA
I-1076081113	7/30/1976	<i>Collins</i>	Highway	No	0/0	\$0	0
I-1976110129	9/30/1976	<i>Collins</i>	Highway	No	0/0	\$0	111 LGA
I-1976120500	11/26/1976	<i>Collins</i>	Highway	No	0/0	\$0	66 LGA
I-1977080146	7/19/1977	<i>Collins</i>	Highway	No	0/0	\$0	58 LGA
I-1978031024	3/11/1978	<i>Collins</i>	Highway	No	0/0	\$0	38 LGA
I-1978060526	5/22/1978	<i>Collins</i>	Highway	No	0/0	\$0	25 LGA
I-1986100193	9/30/1986	<i>Collins</i>	Highway	Yes	1/0	\$0	7,980 LGA
I-1987050470	5/15/1987	<i>Collins</i>	Highway	No	0/0	\$0	25 LGA
I-1992070574	5/13/1992	<i>Collins</i>	Highway	No	0/0	\$0	20 LGA
I-1996020224	1/13/1996	<i>Collins</i>	Highway	No	0/0	\$0	0.125 LGA
I-2002090335	6/11/2002	<i>Collins</i>	Highway	No	0/0	\$0	1 LGA
I-2009030553	3/3/2009	<i>Collins</i>	Highway	No	0/0	\$6,075	30 LGA
I-2011100178	9/11/2011	<i>Collins</i>	Highway	No	0/0	\$3,575	20 LGA
Town of Mathiston							
I-1978050598	5/3/1978	<i>Mathiston</i>	Highway	Yes	0/0	\$0	200 LGA
I-1978080318	7/24/1978	<i>Mathiston</i>	Highway	Yes	0/0	\$0	300 LGA
I-2009030262	2/26/2009	<i>Mathiston</i>	Highway	No	0/0	\$10,100	15 LGA
Town of Seminary							
None Reported	--	--	--	--	--	--	--



Source: USDOT PHMSA

Pipelines

Between 2002 and 2023, there has been 1 pipeline incident in Covington County. It occurred in 2009 and there were no deaths or injuries. The property damage was estimated at \$85,904.

Meth Labs

Meth lab incidents have occurred at various times throughout Covington County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

Given the location of four toxic release inventory sites in Covington County and several roadway and rail incidents, it is possible that a hazardous material incident may occur in the county (between one percent and ten percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Although there are just four TRI sites and a limited record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and narrow roadways.

Pipelines

Since there has been 1 major pipeline incident and there are 448 miles of gas and hazardous liquid lines in the region, it is anticipated that there will be future pipeline incidents in Covington County, so they are considered possible.

Meth Labs

Meth lab incidents will likely continue to occur throughout Covington County. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

A.2.14 Cyber Attack

A cyber-attack is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. A cyberterrorism event can impact one or more of Covington County's and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The cyberterrorism hazard is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. Targets of cyberterrorism can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in in Covington County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact for Covington County. As such, the county will continue to be compelled to respond to cyberterrorisms in the future. The nature of these attacks is projected to evolve in sophistication over time. Covington County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations. The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

A.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. Webster County chose to analyze this hazard given the large number of poultry farms in the area. Poultry has served as host for viruses that ultimately mutate to infect humans.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be shut down, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates back to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted to the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused from a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Similar to other pandemics, this pandemic has two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and those with chronic respiratory, cardiac, neurological, or immunity conditions.

Worldwide, it is estimated that 43 million to 89 million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Covington County had 8,790 cases of COVID and 124 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have underlying health conditions.

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

There has been one Disaster Declaration for a pandemic, Disaster Declaration 4528, for COVID-19.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Webster County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154.pdf/SNSPlan.pdf>

A.2.16 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its “How-to” guidance document titled Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table A.24 describes the extent of each natural hazard identified for Covington County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE A.24: EXTENT OF COVINGTON COUNTY HAZARDS

HAZARD	DESCRIPTION
Tectonic Hazards	
Earthquake	Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Covington County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, the greatest MMI to impact Covington County was reported with an MMI of IV (moderate) with a correlating Richter Scale measurement of less than 4.8. Additionally, USGS data shows Covington County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.
Mass-Movements	
Landslide	As noted above in the landslide profile, there is no extensive history of landslides in Covington County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout the county. There is also susceptibility throughout the county.
Expansive Soils	As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Covington County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Covington County.
Hydraulic Hazards	
Drought	Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Covington County has received this ranking once over the twenty-four-year reporting period.
Floods	Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 19.7 percent of the total land area in Covington County. Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at the Leaf River near Collins in 1856. Water reached a discharge of 56,000 cubic feet per second and the stream gage height was recorded at 33.00 feet.
Dam Failure	Dam failure extent is defined using Mississippi Division of Environmental Quality criteria. There is one high hazard dam in the county.
Meteorological Hazards	
Hurricane and Tropical Storms	Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Covington County was a Category 1 storm (Hurricane Katrina in 2005) which carried tropical force winds of 92 miles per hour upon arrival in the county.
Thunderstorms/ Hail/ Lightning/ Wind	Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Covington County was last reported on May 5, 2023, at 87 knots (approximately 100 mph) and caused \$2,000,000 dollars in damage. It should be noted that future events may exceed these historical occurrences. Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Covington County was 2.75 inches (on March 26, 2005, and again on March 25, 2021). It should be noted that future events may exceed this. According to the Vaisala's flash density map, Covington County is located in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.
Winter Storms	The extent of winter storms can be measured by the amount of snowfall received (in inches). Official long-term snow records are not kept for Covington County. However, the greatest snowfall reported in Jackson (northwest of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.
Temperature Extremes/ Heat Wave	A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4 th , 2010. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.
Tornado	Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Covington County was an EF4 (last reported on April 12, 2020).
Biological Hazards	
	The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life.

Pandemic	Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Covington County had 8,790 cases of COVID and 124 deaths
Other Natural Hazards	
Wildfire	Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by county from 2010-2023. The greatest number of fires to occur in Covington County in any year was 56 in 2023. The greatest number of acres to burn in the county in a single year also occurred in 2023 when 473 acres were burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.
Erosion	The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Covington County.
Climate Change	The extent Climate change will impact Covington County is hard to estimate. It could cause more intense, frequent, and/or magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase so will property damage and possible loss of life.
Other Hazards	
Cyber Attack	The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damages depends on the demands of the cyberterrorist.
Hazard Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the county is 7,980 LGA released on the highway in Collins. It should be noted that larger events are possible. A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled. Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

In order to draw some meaningful planning conclusions on hazard risk for Covington County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a “*Priority Risk Index*” (PRI). More information on the PRI and how it was calculated can be found in *Section 5.16.2*.

Table A.25 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating PRI values and making final determinations for the risk assessment.

TABLE A.25: SUMMARY OF PRI RESULTS FOR COVINGTON COUNTY

Category/Degree of Risk	
--------------------------------	--

HAZARD	Probability	Impact	Spatial Extent	Warning Time	Duration	PRI Score
Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/ Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/ High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Possible	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2

A.2.16 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Covington County, including the PRI results and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table A.26). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all Covington County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in Section 6: *Vulnerability Assessment* and below in Section A.3. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE A.26: CONCLUSIONS ON HAZARD RISK FOR COVINGTON COUNTY

High Risk	<i>Drought/Heat Wave Hurricane and Tropical Storm Thunderstorm/High Wind Tornado Flood Lightning Pandemic</i>
Moderate Risk	<i>Climate Change Hail Pipeline Incident Hazardous Materials Incident Wildfire Dam Failure Winter Storm and Freeze</i>
Low Risk	<i>Earthquake Expansive Soil Landslide Meth Lab Incident Pandemic Erosion Cyber Attack</i>

A.3 COVINGTON COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Covington County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact and expected

number of damages caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in *Section 6: Vulnerability Assessment*.

A.3.1 Asset Inventory

Table A.27 lists the estimated number of improved properties and the total value of improvements for Covington County and its participating jurisdictions (study area of vulnerability assessment). This data was obtained from HAZUS.

TABLE A.27: IMPROVED PROPERTY IN COVINGTON COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Covington County	8,877	\$1,613,517,000

Table A.28 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Covington County. HAZUS was used to obtain the critical facilities for the county and that data was modified to reflect more recent changes. In addition, **Figure A.8** shows the locations of essential facilities in Covington County. **Table A.29** shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

FIGURE A.8: CRITICAL FACILITY LOCATIONS IN COVINGTON COUNTY

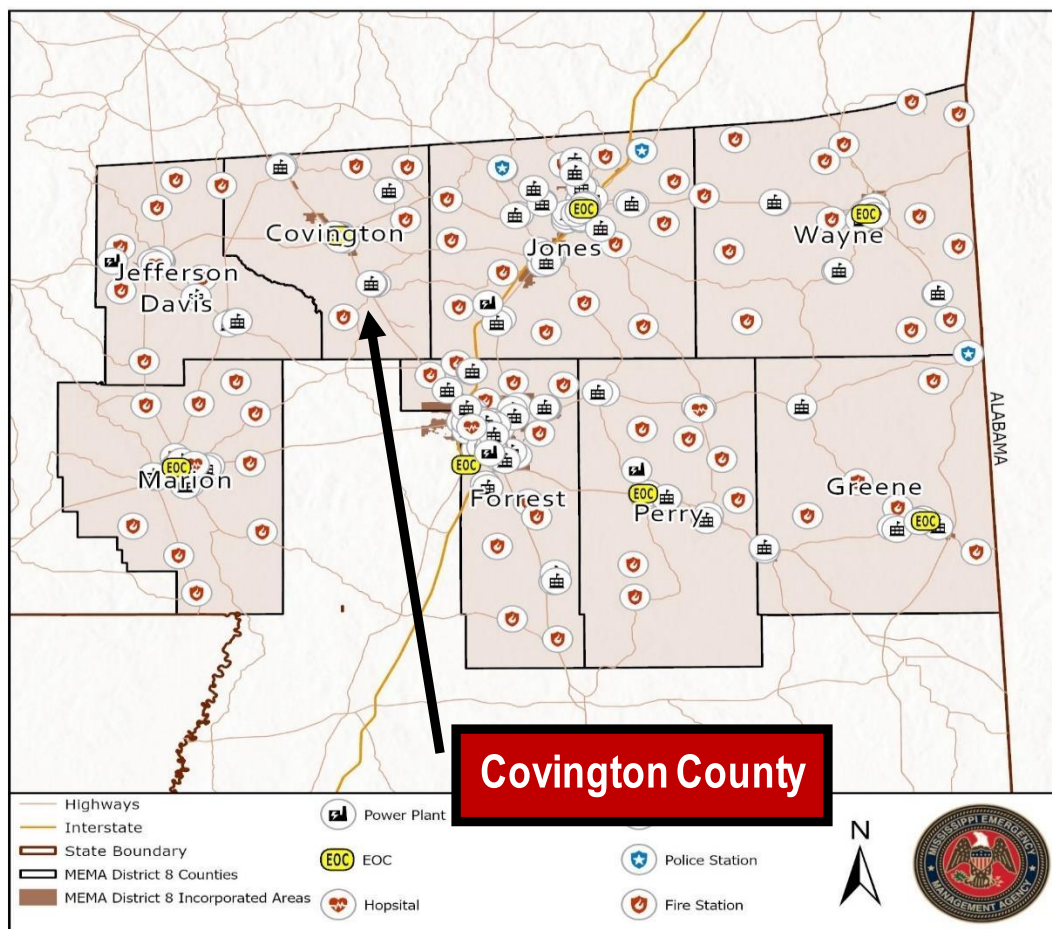


TABLE A.28: CRITICAL FACILITY INVENTORY IN COVINGTON COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools
Collins	2	3	1	0	3

Mount Olive	1	1	0	0	1
Seminary	1	1	0	0	2
Unincorporated Area	1	1	0	1	3
Covington County Total:	5	6	1	1	9

Source: HAZUS-MH 4.2 and Planning Committee

Table A.29 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an “X”).

TABLE A.29: AT-RISK CRITICAL FACILITIES

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M	Mobile HAZMAT 500-2500M	Drought	Thunder -storm,	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land - slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

			Roads & Rails	Roads & Rails		Lightning, & Hail								
Covington County Critical Facilities														
City of Collins Fire Dept.	Fire Dept.	Non-burnable	X	X	X	X	X	X	X	X				
Collins City Police Dept.	Police Station	Non-burnable	X	X	X	X	X		X	X			X	
Collins Elementary	School	Non-burnable	X	X	X	X	X		X	X			X	
Collins Middle School	School	Non-burnable	X	X	X	X	X		X	X				
Collins High School	School	Non-burnable	X	X	X	X	X		X	X				
Collins Fire Dept.	Fire Dept.	Non-burnable	X	X	X	X	X		X	X				
Collins Police Station	Police Station	Moderate		X	X	X	X		X	X				
Collins Police Station	Police Station	Moderate		X	X	X	X		X	X				
Collins Maintenance Build.	Gov.	Non-burnable	X	X	X	X	X		X	X			X	
Covington CO Vocational Tech.	School	Non-burnable	X	X	X	X	X		X	X				
Covington CO Alt. School	School	Non-burnable	X	X	X	X	X		X	X				
Covington County Sheriff	Police Dept.	Non-burnable	X	X	X	X	X	X	X	X				
EOC	EOC	HIGH	X	X	X	X	X	X	X	X			X	
Hopewell Elem. School	School	Non-burnable			X	X	X		X	X				
Lagoon	Utility	Moderate	X	X	X	X	X		X	X				
Water Well 1	Utility	Moderate	X	X	X	X	X		X	X			X	
Water Well 4	Utility	Non-burnable	X	X	X	X	X		X	X				
Mt. Olive Attend. Center	School	Non-burnable	X	X	X	X	X		X	X				
CLEM VFD	Fire Dept.	HIGH			X	X	X		X	X				
Hot Coffee VFD	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Mt. Olive City Police Dept.	Police Station	Non-burnable	X	X	X	X	X		X	X				
East Covington VFD	Fire Dept.	Moderate			X	X	X		X	X				
Seminary Attend. Center	School	Non-burnable		X	X	X	X		X	X				
Seminary Baptist Kinder.	School	Non-burnable		X	X	X	X		X	X				
Seminary Town Police Dept	Police Station	Non-burnable		X	X	X	X		X	X				
Southwest Covington VFD	Fire Station	VERY HIGH	X	X	X	X	X		X	X				
Covington County Hospital	Care Facility	Moderate	X	X	X	X	X		X	X				

A.3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Covington County that are potentially at risk to these hazards.

Table A.30 lists the population by jurisdiction according to U.S. Census 2020 population estimates. The results are presented at the county-wide level. The total population in Covington County according to Census data is 18,340 persons. Based on the data below, all the municipalities have decreased in population. This could lead to a slight decrease in vulnerability. Additional population estimates are presented above in *Section A.1*.

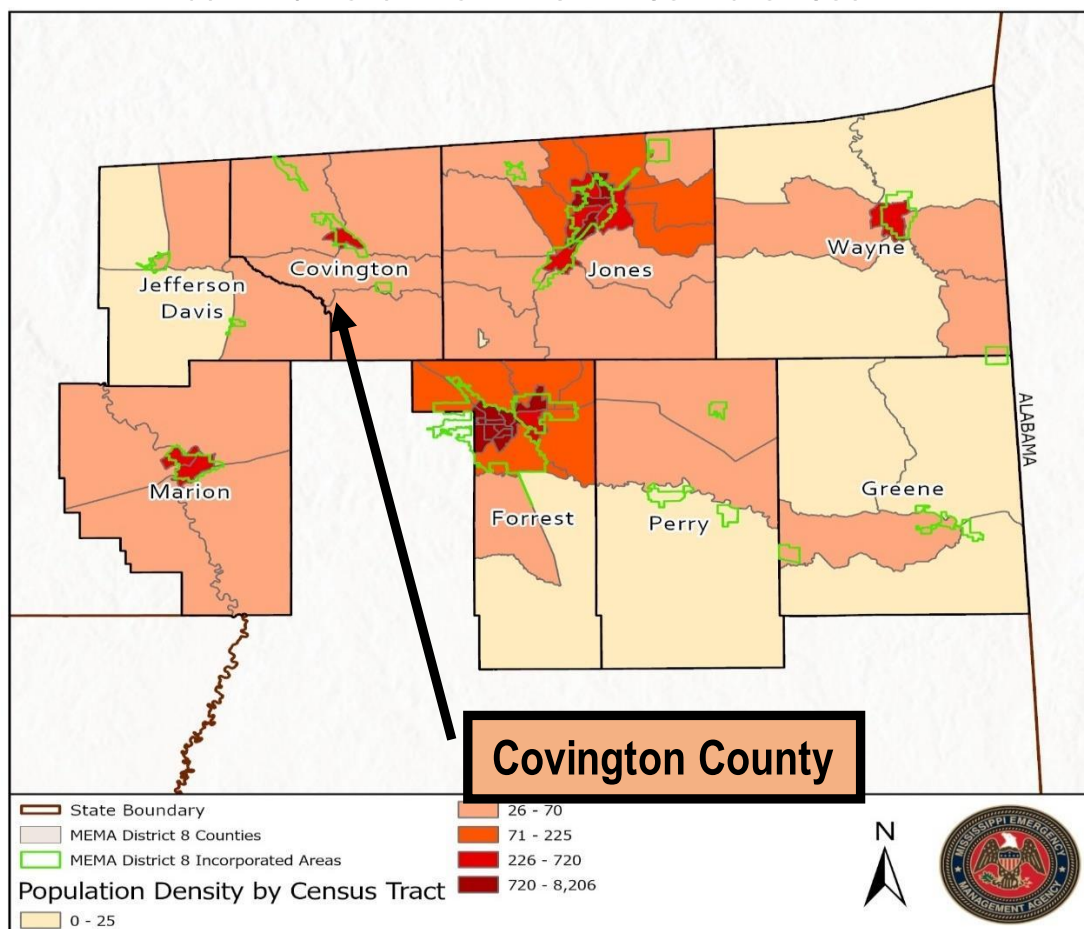
TABLE A.30: TOTAL POPULATION IN COVINGTON COUNTY

Jurisdiction	2010 Census	2020 Census
Covington County Total:	19,568	18,340
<i>Collins</i>	2,586	2,342
<i>Mount Olive</i>	982	895
<i>Seminary</i>	314	305
<i>Unincorporated Area</i>	15,686	14,798

Source: US Census Bureau

In addition, **Figure A.9** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020. This information has not changed since the last plan update.

FIGURE A.9: POPULATION DENSITY IN COVINGTON COUNTY



A.3.3 Vulnerability Assessment Results

As noted in Section 6: Vulnerability Assessment, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Covington County, are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter

storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table A.25**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

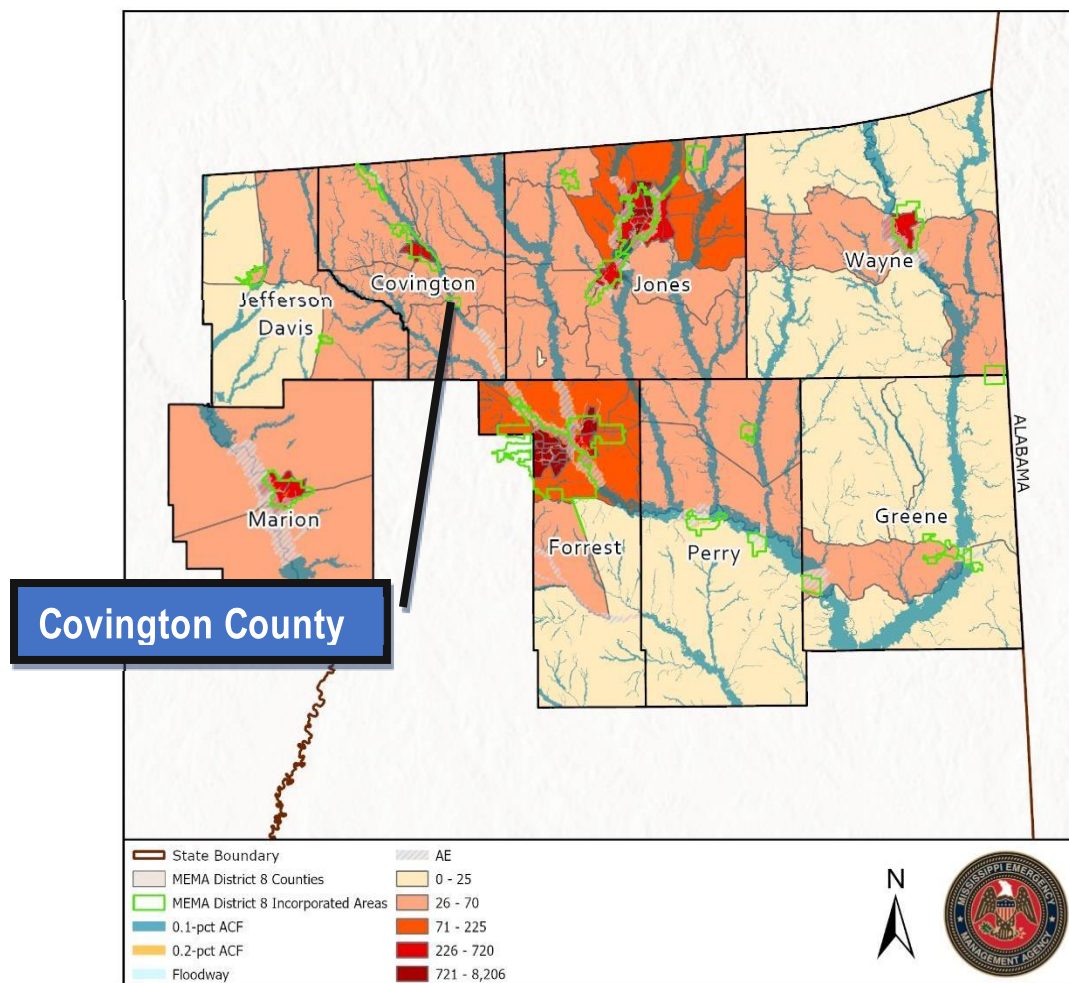
FLOOD

Historical evidence indicates that Covington County is susceptible to flood events. A total of 65 flood events have been reported by the National Centers for Environmental Information resulting in \$3.177M in damages.

Social Vulnerability

Since 2020 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data. **Figure A.10** is presented to gain a better understanding of at-risk population.

FIGURE A.10: POPULATION DENSITY NEAR FLOODPLAINS



Critical Facilities

The critical facility analysis revealed that there are six critical facilities located in the Covington County 1.0-percent annual chance floodplain valued at over \$5.9M based on FEMA DFIRM boundaries and GIS analysis. There are no critical facilities located in the 0.2 percent annual chance floodplain. A list of specific critical facilities and their associated risk can be found in **Table A.29**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Covington County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

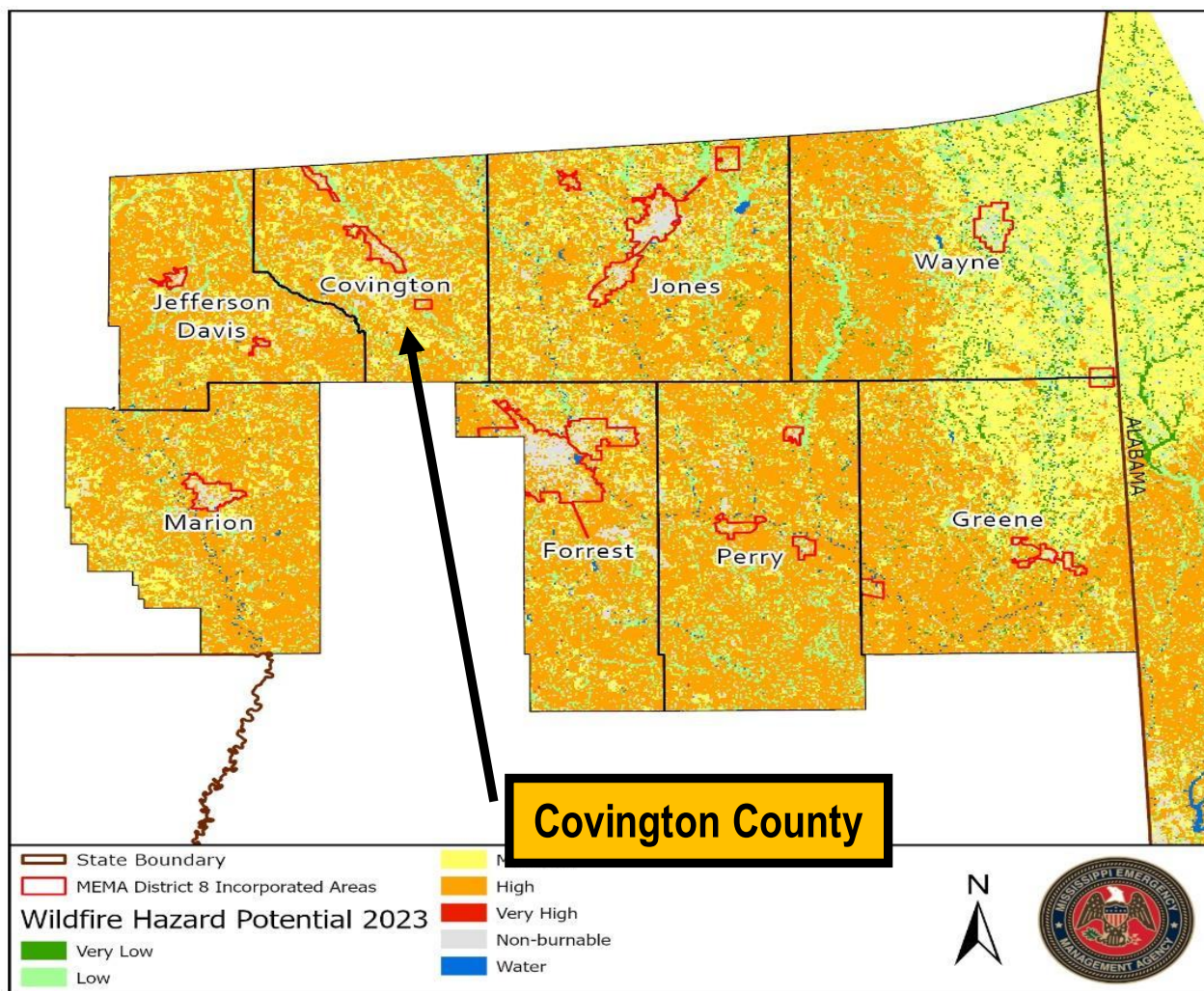
WILDFIRE

Although historical evidence indicates that Covington County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential (WHP) data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure A.11 shows the wildfire hazard potential for Covington County. Most of the planning areas falls within the low to high category.

FIGURE A.11: WILDFIRE RISK AREAS IN COVINGTON COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there are five critical facilities located in an area considered moderate risk valued at nearly \$1.2M. There are two critical facilities located in an area considered high risk valued at \$1.1M, and there is an additional structure located in an area considered very high risk. It should be noted, however, that several factors could impact the spread of a wildfire putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table A.29**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Covington County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 25 critical facilities identified for Covington County, valued at \$52,176,304. All are vulnerable to the earthquake hazard.

An earthquake has the potential to impact all existing and future buildings, facilities, and populations in Covington County. While Covington County may not experience a large earthquake, localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table A.29**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Covington County has an elevated risk to the hurricane and tropical storm hazard. Several tracks have come near or traversed through the county, as shown and discussed in *Section A.2.10*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There is an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amounts of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of

2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Covington County, all critical facilities are considered to be at risk. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. There are 25 critical facilities identified for Covington County, valued at \$52,176,304. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation action for especially vulnerable and/or critical facilities to mitigation against the effects of the hurricane hazard. A list of specific critical facilities can be found in **Table A.29**.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in Covington County. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

HAZARDOUS MATERIALS INCIDENT

Although historical evidence and existing Toxic Release Inventory sites indicate that Covington County is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS analysis was used for fixed and mobile areas. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Covington County, along with buffers, were used for analysis as shown in **Figure A.12**. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis. **Figure A.13** shows the areas used for mobile toxic release buffer analysis. The mobile toxic release buffer data did not change since the last plan update.

FIGURE A.12: TRI SITES WITH BUFFERS IN COVINGTON COUNTY

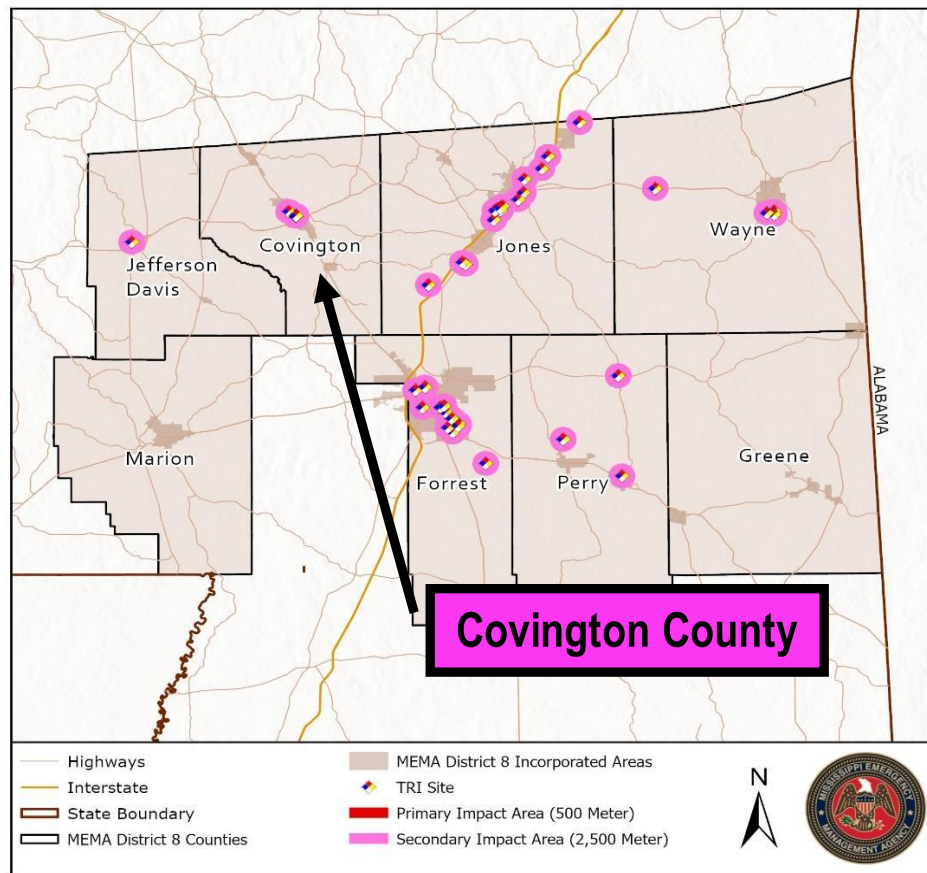
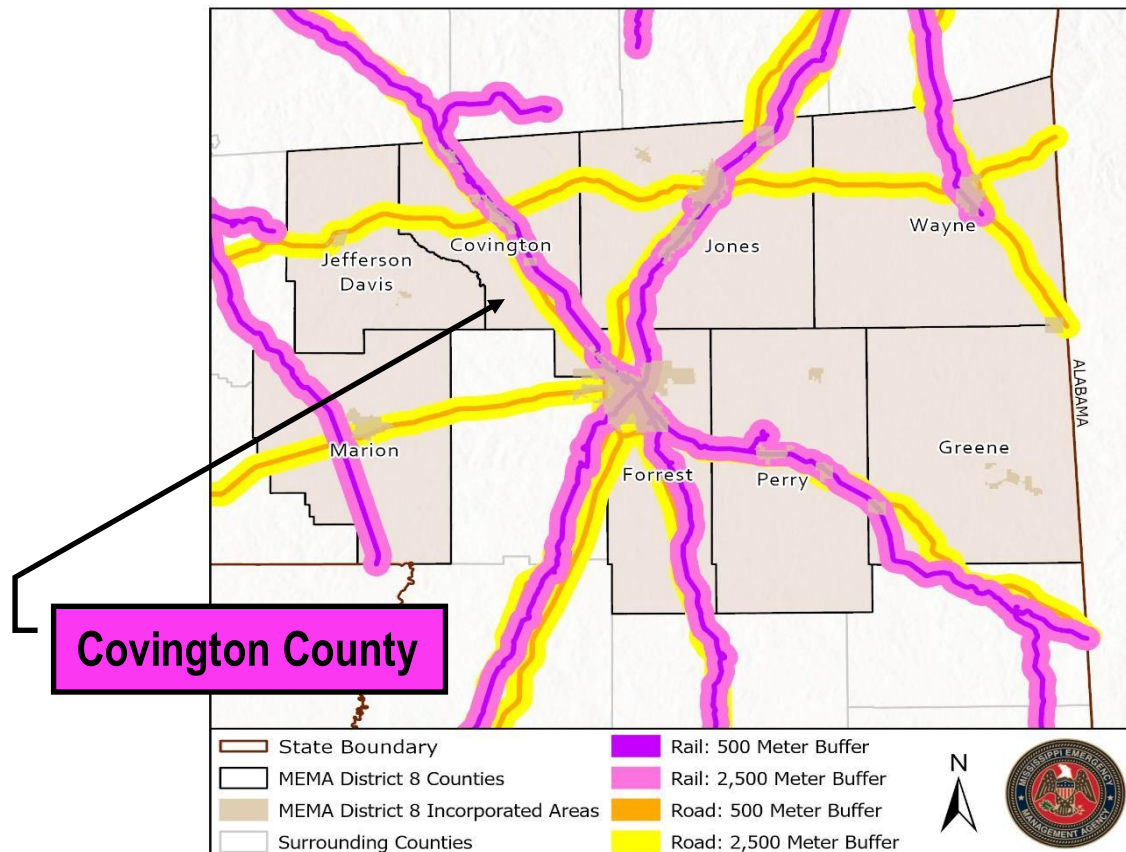


FIGURE A.13: MOBILE HAZMAT BUFFERS IN COVINGTON COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden to evacuate population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are two critical facilities that would be impacted by only the 500M HAZMAT risk zone, which are valued at over \$5.2M. There are 16 critical facilities that would be impacted by the 2500M HAZMAT risk zone, valued at over \$30M. A list of specific critical facilities and their associated risk can be found in **Table A.29**.

Mobile Analysis:

The critical facility analysis for transportation corridors in Covington County revealed that there are 9 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at over \$12M, and there are 14 critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$40.8M.

Expanding to a 2500M HAZMAT risk zone reveals that all critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable, and there are 19 critical facilities located in the railway mobile HAZMAT buffer area that are vulnerable. A list of specific critical facilities and their associated risk can be found in **Table A.29**.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Covington County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

A.4 COVINGTON COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Covington County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in Section 7: Capability Assessment.

A.4.1 Planning and Regulatory Capability

Table A.31 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Covington County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE A.31: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Covington County	Collins	Mount Olive	Seminary
Hazard Mitigation Plan	✓	✓	✓	✓
Comprehensive Land Use Plan			✓	
Floodplain Management Plan				
Open Space Management Plan		✓	✓	✓
Stormwater Management Plan/Ordinance				
National Resource Protection Plan				
Flood Response Plan				
Emergency Operations Plan	✓	✓	✓	✓
Continuity of Operations Plan	✓			
Evacuation Plan				
Disaster Recovery Plan				
Capital Improvements Plan				
Economic Development Plan	✓	✓	✓	✓
Historic Preservation Plan				
Flood Damage Prevention Ordinance	✓	✓	✓	✓
Zoning Ordinance		✓	✓	✓
Subdivision Ordinance		✓	✓	
Unified Development Ordinance				
Post-Disaster Redevelopment Ordinance				
Building Codes		✓		✓
Fire Codes		✓		
National Flood Insurance Program (NFIP)	✓	✓	✓	✓
National Community Rating System				

A more detailed discussion on the county's planning and regulatory capabilities follows.

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Covington County has previously adopted a hazard mitigation plan. The City of Collins, the Town of Mount Olive, and the Town of Seminary were also included in this plan.

Emergency Operations Plan

Covington County maintains an emergency operations plan through its Emergency Management Agency. The City of Collins, the Town of Mount Olive, and the Town of Seminary are each covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Covington County has not adopted a county comprehensive land use plan. However, the Town of Mount Olive adopted a community development plan in 1978.

Zoning Ordinance

Covington County does not have a zoning ordinance in place. However, the City of Collins and the Town of Mount Olive have zoning ordinances that were adopted in 1987 and 1978, respectively.

Subdivision Ordinance

Covington County does not have a subdivision ordinance in place. However, the City of Collins and the Town of Mount Olive adopted subdivision regulations in 1973 and 1978, respectively.

Building Codes, Permitting, and Inspections

Covington County has not adopted a building code. However, the City of Collins and the Town of Seminary have both adopted building codes.

FLOODPLAIN MANAGEMENT

Table A.32 provides NFIP policy and claim information for each participating jurisdiction in Covington County.

TABLE A.32: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
Covington County†	12/15/1990	4/5/2010	63	\$7,483,100	27	\$357,325
Collins	8/5/1985	4/5/2010(M)	16	\$3,121,600	18	\$124,503
Mount Olive	9/15/1989	4/5/2010	1	\$54,200	3	\$46,982
Seminary	4/5/2010	4/5/2010(M)	0	\$0	0	\$0

†Includes unincorporated areas of county only

*Community does not participate in the NFIP

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Covington County, the City of Collins, the Town of Mount Olive, and the Town of Seminary all participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Covington County, the City of Collins, the Town of Mount Olive, and the Town of Seminary are all included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

A.4.2 Administrative and Technical Capability

Table A.33 provides a summary of the capability assessment results for Covington County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE A.33: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Covington County	Collins	Mount Olive	Seminary
Planners with knowledge of land development/land management practices				
Engineers or professionals trained in construction practices related to buildings and/or infrastructure	✓	✓	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards.	✓			
Emergency Manager	✓	✓	✓	✓
Floodplain Manager	✓	✓	✓	✓
Land Surveyors				
Scientists familiar with the hazards of the community.	✓	✓	✓	✓
Staff with education or expertise to assess the community's vulnerability to hazards.	✓	✓	✓	✓
Personnel skilled in GIS and/or HAZ-US				
Resource development staff or grant writers	✓	✓	✓	✓

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

A.4.3 Fiscal Capability

Table A.34 provides a summary of the results for Covington County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE A.34: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Covington County	Collins	Mount Olive	Seminary
Capital Improvement Programing		✓	✓	
Community Development Block Grants (CDBG)	✓	✓	✓	✓
Special Purchase Taxes (or taxing districts)				
Gas/ Electric Utility Fees				
Water/ Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements	✓	✓	✓	✓

A.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Covington County is more likely to shift in support of hazard mitigation efforts.

A.5 COVINGTON COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Covington County to follow to become less vulnerable to its identified hazards. It is based on consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability assessment and risk assessment. Additional Information can be found in Section 8: Mitigation Strategy and Section 9: Mitigation Action Plan.

A.5.1 Mitigation Goals

Covington County developed five mitigation goals in coordination with the other participating *MEMA District 8 Region jurisdictions*. The regional mitigation goals are presented in **Table A.35**.

TABLE A.35: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

MITIGATION GOALS	
Goal #1	Develop a sustainable, comprehensive mitigation program to ensure safer communities.
Goal #2	Reduce or avoid loss of life, injury, and damage to property, the economy, and the environment.
Goal #3	Enhance preparedness and effective response to hazards.
Goal #4	Strengthen and improve local mitigation capabilities.
Goal #5	Increase public awareness of hazard mitigation, hazard risk, and protective measures that can be taken to minimize potential loss and damage

A.5.2 Mitigation Action Plan

The mitigation actions proposed by Covington County, the City of Collins, the Town of Mount Olive, and the Town of Seminary are listed in the following individual Mitigation Action Plans.

There are no new mitigation actions added to the plan at this time.

Covington County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Implemented and ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County EMA & BOS	Ongoing	Implemented and ongoing
P-3	Consider adoption of flood damage prevention ordinance in Covington County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented and ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Rd Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Deferred due to funds
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Deferred due to funds
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	N/A	No cost	County	Ongoing	Implemented and ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	25% of the total cost	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	25% of the total cost	County	Ongoing	Implemented and ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Deferred due to funding
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded Grants, BRIC, HMGP	Low to no cost	County EMA	Ongoing	Implemented and ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County EMA, County BOS	Ongoing	Implemented and ongoing

ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	25% of the total cost	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	25% of the total cost	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP	25% of the total cost	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	25% of the total cost	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	25% of the total cost	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Enhance or upgrade emergency response communications or Central Dispatch and other communications equipment.	All	High	Unknown	25% of the total cost	County EMA	Contingent on funding	Implemented and ongoing
ES-9	Explore upgrade/enhancement of 911 system in Covington County.	All	Medium	HMGP	25% of the total cost	County and/or EMA	Contingent on funding	Planning Upgrade
ES-10	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	25% of the total cost	County and/or EMA	Contingent on funding	Deferred due to funding
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	25% of the total cost	County	Ongoing	Implemented / Ongoing
ES-14	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	25% of the total cost	County	Ongoing/ Annual Review	Implemented / Ongoing
ES-15	Host a meeting to review Covington County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Ongoing	Implemented / Ongoing
ES-16	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Implemented as Funds become available
ES-17	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-funded, MEMA	Low cost	County	Ongoing	Implemented as Funds become available

Structural Projects

SP-1	Acquisition / Demolition / Relocation or Elevation, Reconstruction of flood prone structures	FL	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Ongoing	Ongoing
SP-2	Individual Saferooms	TS, T	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Ongoing	Ongoing

Public Education and Awareness

PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	Range	Medium	Self-funded, Grants, BRIC, HMGP	Low Cost	County	Ongoing	Implemented / Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community		High	Self-funded	No additional		Ongoing	Implemented / Ongoing

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PEA-4	workshops, brochures, and newspaper articles.	FL, Multiple Hazards			cost	County EMA/ County		
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Implemented / Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, Grants, BRIC, HMGP	Unknown	County	Ongoing	Deferred
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	Self-funded, Chamber of Comm., SCORE	Low or no Cost	County	Ongoing	Implemented and Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic County EMA = Covington County Emergency Management Agency County BOS = Covington County Board of Supervisors								

Collins Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Implemented and ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County EMA & BOS	Ongoing	Implemented and ongoing
P-3	Consider adoption of flood damage prevention ordinance in Covington County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented and ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Rd Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Deferred due to funds
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Deferred due to funds
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	N/A	No cost	County	Ongoing	Implemented and ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Implemented and ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Deferred due to funding
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	County EMA	Ongoing	Implemented and ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County EMA, County BOS	Ongoing	Implemented and ongoing

ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Enhance or upgrade emergency response communications or Central Dispatch and other communications equipment.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-9	Explore upgrade/enhancement of 911 system in Covington County.	All	Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Planning Upgrade
ES-10	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Deferred due to funding
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	Unknown	County	Ongoing	Implemented / Ongoing
ES-14	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Implemented / Ongoing
ES-15	Host a meeting to review Covington County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Ongoing	Implemented / Ongoing
ES-16	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Implemented as Funds become available
ES-17	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-funded, MEMA	Low cost	County	Ongoing	Implemented as Funds become available
Structural Projects								
SP-1	Acquisition / Demolition / Relocation or Elevation, Reconstruction of flood prone structures	FL	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Ongoing	Ongoing
SP-2	Individual Saferooms	TS, T	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	Range	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Implemented / Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented / Ongoing

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PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/Town/ City	Ongoing	Implemented / Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	Deferred
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	Self- funded, Chamber of Comm., SCORE	Low or no Cost	County	Ongoing	Implemented and Ongoing

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards
 HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic
 County EMA = Covington County Emergency Management Agency County BOS = Covington County Board of Supervisors

Mount Olive Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Implemented and ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County EMA & BOS	Ongoing	Implemented and ongoing
P-3	Consider adoption of flood damage prevention ordinance in Covington County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented and ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Rd Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Deferred due to funds
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Deferred due to funds
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	N/A	No cost	County	Ongoing	Implemented and ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Implemented and ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Deferred due to funding
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	County EMA	Ongoing	Implemented and ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County EMA, County BOS	Ongoing	Implemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding

ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Enhance or upgrade emergency response communications or Central Dispatch and other communications equipment.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-9	Explore upgrade/enhancement of 911 system in Covington County.	All	Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Planning Upgrade
ES-10	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Deferred due to funding
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Implemented / Ongoing
ES-14	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Implemented / Ongoing
ES-15	Host a meeting to review Covington County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Ongoing	Implemented / Ongoing
ES-16	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Implemented as Funds become available
ES-17	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-funded, MEMA	Low cost	County	Ongoing	Implemented as Funds become available
Structural Projects								
SP-1	Acquisition / Demolition / Relocation or Elevation, Reconstruction of flood prone structures	FL	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Ongoing	Ongoing
SP-2	Individual Saferooms	TS, T	Medium	Grants	Unknown	County EMA	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	Range	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Implemented / Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented / Ongoing

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PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/Town/ City	Ongoing	Implemented / Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	Deferred
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	Self-funded, Chamber of Comm., SCORE	Low or no Cost	County	Ongoing	Implemented and Ongoing

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards
 HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic
 County EMA = Covington County Emergency Management Agency County BOS = Covington County Board of Supervisors

Seminary Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Implemented and ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County EMA & BOS	Ongoing	Implemented and ongoing
P-3	Consider adoption of flood damage prevention ordinance in Covington County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented and ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	To maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Rd Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred due to funds
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Deferred due to funds
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Deferred due to funds
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	N/A	No cost	County	Ongoing	Implemented and ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Implemented and ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Deferred due to funding
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	County EMA	Ongoing	Implemented and ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County EMA, County BOS	Ongoing	Implemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding

ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Unknown	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Enhance or upgrade emergency response communications or Central Dispatch and other communications equipment.	All	High	Unknown	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-9	Explore upgrade/enhancement of 911 system in Covington County.	All	Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Planning Upgrade
ES-10	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Deferred due to funding
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Implemented / Ongoing
ES-14	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Implemented / Ongoing
ES-15	Host a meeting to review Covington County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Ongoing	Implemented / Ongoing
ES-16	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Implemented as Funds become available
ES-17	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-funded, MEMA	Low cost	County	Ongoing	Implemented as Funds become available
Structural Projects								
SP-1	Acquisition / Demolition / Relocation or Elevation, Reconstruction of flood prone structures	FL	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Ongoing	Ongoing
SP-2	Individual Saferooms	TS, T	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	Range	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Implemented / Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented / Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Implemented / Ongoing

ANNEX A: COVINGTON COUNTY

PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	Deferred
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	Self-funded, Chamber of Comm., SCORE	Low or no Cost	County	Ongoing	Implemented and Ongoing

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards
 HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic
 County EMA = Covington County Emergency Management Agency County BOS = Covington County Board of Supervisors

Annex B

Forrest County

This annex includes jurisdiction-specific information for Forrest County and its participating municipalities. It consists of the following five subsections:

- ★ B.1 Forrest County Community Profile
- ★ B.2 Forrest County Risk Assessment
- ★ B.3 Forrest County Vulnerability Assessment
- ★ B.4 Forrest County Capability Assessment
- ★ B.5 Forrest County Mitigation Strategy

B.1 FORREST COUNTY COMMUNITY PROFILE

B.1.1 Geography and the Environment

Forrest County is located in south central Mississippi approximately 90-miles from Jackson, the capitol city and 50-miles from the Mississippi Gulf Coast. It comprises two cities, the City of Hattiesburg and the City of Petal. An orientation map is provided as **Figure B.1**.

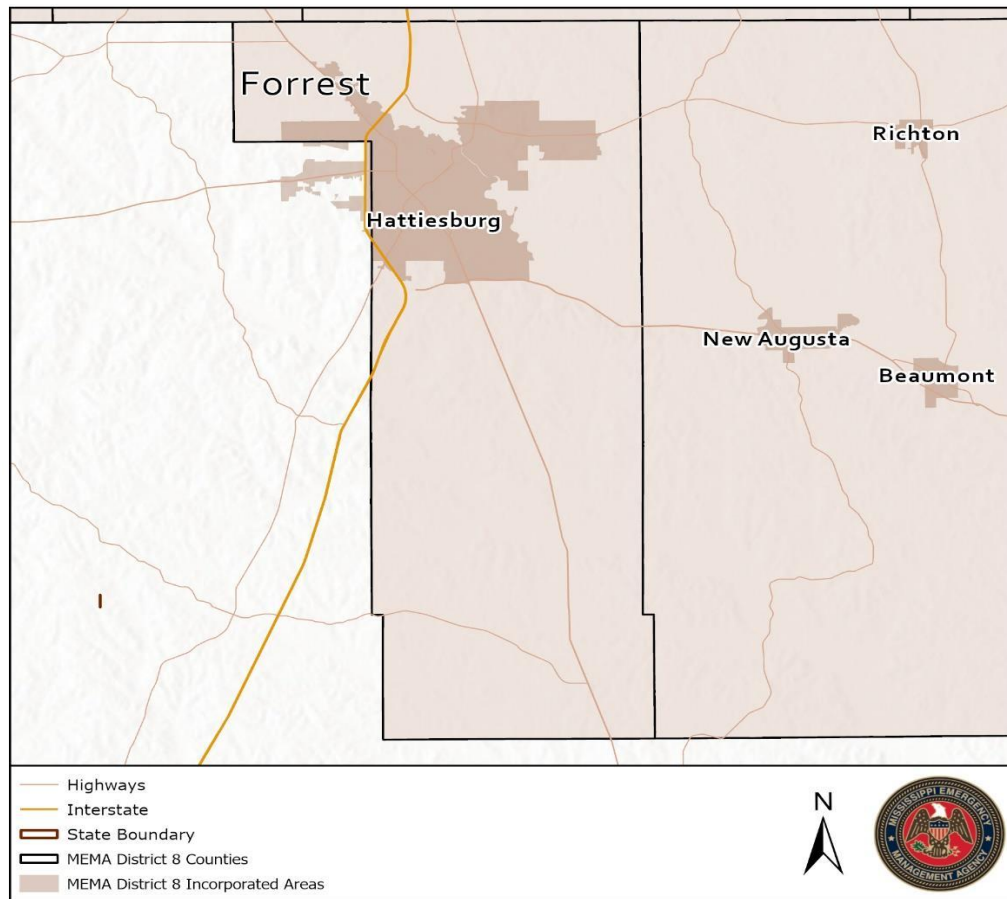
The county is a rural area of which 65 percent is characterized as forest land devoted primarily to timber production and recreation hunting. The total area of the county is 470 square miles, less than 4 square miles of which is water area.

In Forrest County, the summers are long, hot, and oppressive; the winters are short and cold; and it is wet and partly cloudy year-round. Over the course of the year, the temperature typically varies from 31°F to 93°F and is rarely below 28°F or above 97°F.

The hot season lasts for 5 months, from May to September, with an average daily temperature of 90°F. The hottest month of the year is August, with an average high of 92°F and low of 72°F. The cool season lasts for 3 months, from November to February, with an average daily high temperature 60°F. The coldest month of the year is January, with an average low of 38°F and high of 58°F.

The average daily rainfall for Forrest County is 0.17 inches with an average of 61.6" annually. The chance of wet days in Forrest County varies throughout the year. The wetter season lasts six months from November through April. Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. Based on this categorization, the most common form of precipitation throughout the year is rain alone. In 2023, the most rain fell in January with a total of 6.31" and the least rain fell in October with a total of 3.61".

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	58	62	70	77	83	89	91	92	87	78	69	61
Average Lows	38	41	48	55	63	70	72	72	67	56	47	40
Average Rainfall	6.31	5.81	5.35	4.95	4.45	4.85	5.68	5.71	4.48	3.61	4.92	5.48

FIGURE B.1: FORREST COUNTY ORIENTATION MAP

B.1.2 Population and Demographics

According to the 2020 Census, Forrest County has a population of 78,158 people. The county has seen almost 4.2 percent population growth between 2010 and 2020, and the population density is 160 people per square mile. The population saw a slight increase which could lead to a slight increase in vulnerability. Per the Census Reports, in 2024, Forrest County had a population of 78,208, which is a .06 percent increase since 2020. The household income is \$49,304, which grew by 20 percent. Population counts from the US Census Bureau for 2010, and 2020 for the county and both of the participating jurisdictions are presented in **Table B.1**. Estimates for 2024 are also included.

TABLE B.1: POPULATION COUNTS FOR FORREST COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2024 Estimate
Forrest County	75,007	78,158	+4.2	78,208
<i>Hattiesburg</i>	45,798	48,730	+6.4	48,414
<i>Petal</i>	10,477	11,010	+5	11,230

Source: US Census Bureau

Based on the 2020 Census, the median age of residents of Forrest County is 32.0 years. The racial characteristics of the county are presented in **Table B.2** and will remain the same as the census data has not been officially updated. However, according to the estimates provided by the Census Reports, the median age in 2024 remained the same at 32 years. The population of black persons is 37 percent, and 3 percent is Hispanic or Latino. Whites make up the majority of the population in the county, accounting for 59 percent of the population.

TABLE B.2: DEMOGRAPHICS OF FORREST COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Forrest County	59%	37%	0.1%	1%	3%
Hattiesburg	41%	52%	0.4%	2%	4%
Petal	81%	15%	0%	0%	4%

Source: US Census Bureau

TABLE B.3: AVERAGE INCOME AND HEALTH IN FORREST COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below The Poverty Level
Forrest County	23%	8%	\$52,157	22%
Hattiesburg	15%	12%	\$41,024	32%
Petal	22%	10%	\$61,957	14%

Source: US Census Bureau

B.1.3 Housing

According to the 2020 US Census, there are 33,490 housing units in Forrest County, the majority of which are single family homes or mobile homes. Per 2024 estimates, the total number of houses increased by 11 percent. However, the median home value is \$187,700, which increased by at least 39 percent. The total population had an increase in population in the two cities and in the county. The development and median home value also increased. These increases could lead to an increase in overall vulnerability. Housing information for the county and two cities is presented in **Table B.4**.

TABLE B.4: HOUSING CHARACTERISTICS OF FORREST COUNTY

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2023)	Median Home Value (2023)
Forrest County	29,913	\$114,000	33,490	\$187,700
Hattiesburg	20,029	\$86,111	22,830	\$146,600
Petal	4,261	\$111,650	4,435	\$147,800

Source: US Census Bureau

B.1.4 Infrastructure

TRANSPORTATION

Forrest County is located near the center of the southeast portion of Mississippi. The City of Hattiesburg is the county seat and is known as the “Hub City” because of its strategic location between New Orleans, Louisiana; Mobile, Alabama; Gulfport, Mississippi; and Jackson, Mississippi. The County is well served with a transportation network that includes one interstate highway and three U.S. highways. Interstate 59 is a north-south route that enters the County from Pearl River County to the southwest and runs in a northeasterly direction through Forrest County into Jones County to the north. U.S. Highway 49 bisects Forrest County from the southeast corner of the County to the northwest corner. U.S. Highway 11 is also a north-south route, while U.S. 98 is an east-west route. State Highways 42 and 13 are both east-west routes. Highway 42 is in the northern most portion for the county while Highway 13 is in the southernmost portion of the county.

The city of Hattiesburg maintains the Hattiesburg Bobby L. Chain Municipal Airport (HBG) in the Hattiesburg/Forrest County Industrial Park. Located four miles south of the city center, the municipal airport provides business and general aviation services for much of South Mississippi. Commercial air transportation is available at the Hattiesburg-Laurel Regional Airport, 40-minute drive from the South end of the county. International airports in Jackson, Gulfport, and New Orleans are all also within about a 100-mile radius of Forrest County.

There is passenger and freight rail service available in Hattiesburg.

UTILITIES

Electrical power in Forrest County is provided by several electrical power associations, including Mississippi Power Company and Cooperative Energy.

Water and sewer service is provided to rural residents of Forrest County water associations by aerated lagoons. Each of the municipalities have their own water and sewer departments.

COMMUNITY FACILITIES

There are a number of buildings and community facilities located throughout Forrest County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are 11 fire stations, 6 police stations, and 33 public schools located within the county. There are also two universities.

There is one hospital located in Forrest County. Forrest General Hospital is a 545 inpatient bed facility with a 400-bed medical-surgical hospital located in the City of Hattiesburg.

Forrest County proudly claims to be the “Gateway to the Longleaf Trace,” a 41-mile linear park that offers premier running, biking, hiking, and equestrian trails. The Longleaf Trace is one of the longest “Rails to Trails” conversion in the United States. Another major attraction in the county is State Park, located two miles south of Hattiesburg city limits. The 225-acre lake is one of 21 state fishing lakes operated by the MS Department of Wildlife, Fisheries, and Parks. Water skiing is allowed on certain days and times and additional amenities include boat rental, camp sites, restrooms, a covered pavilion, and a picnic area with grills.

B.1.5 Land Use

Many areas of Forrest County are undeveloped or sparsely developed due to the county’s location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region’s population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

B.1.6 Employment and Industry

According to the Mississippi Employment Security Commission (MESC), in 2024, Forrest County had an average annual employment of 33,020 workers and an average unemployment rate of 2.4% percent. According to the MESC, in 2023, the Education Services and Health Care employed 25.2% percent of the workforce followed by Retail Trade (10.3%) and Art, Entertainment, and Food Service (13.4%). The average annual wage in Forrest County was \$49,340.

B.2 FORREST COUNTY RISK ASSESSMENT

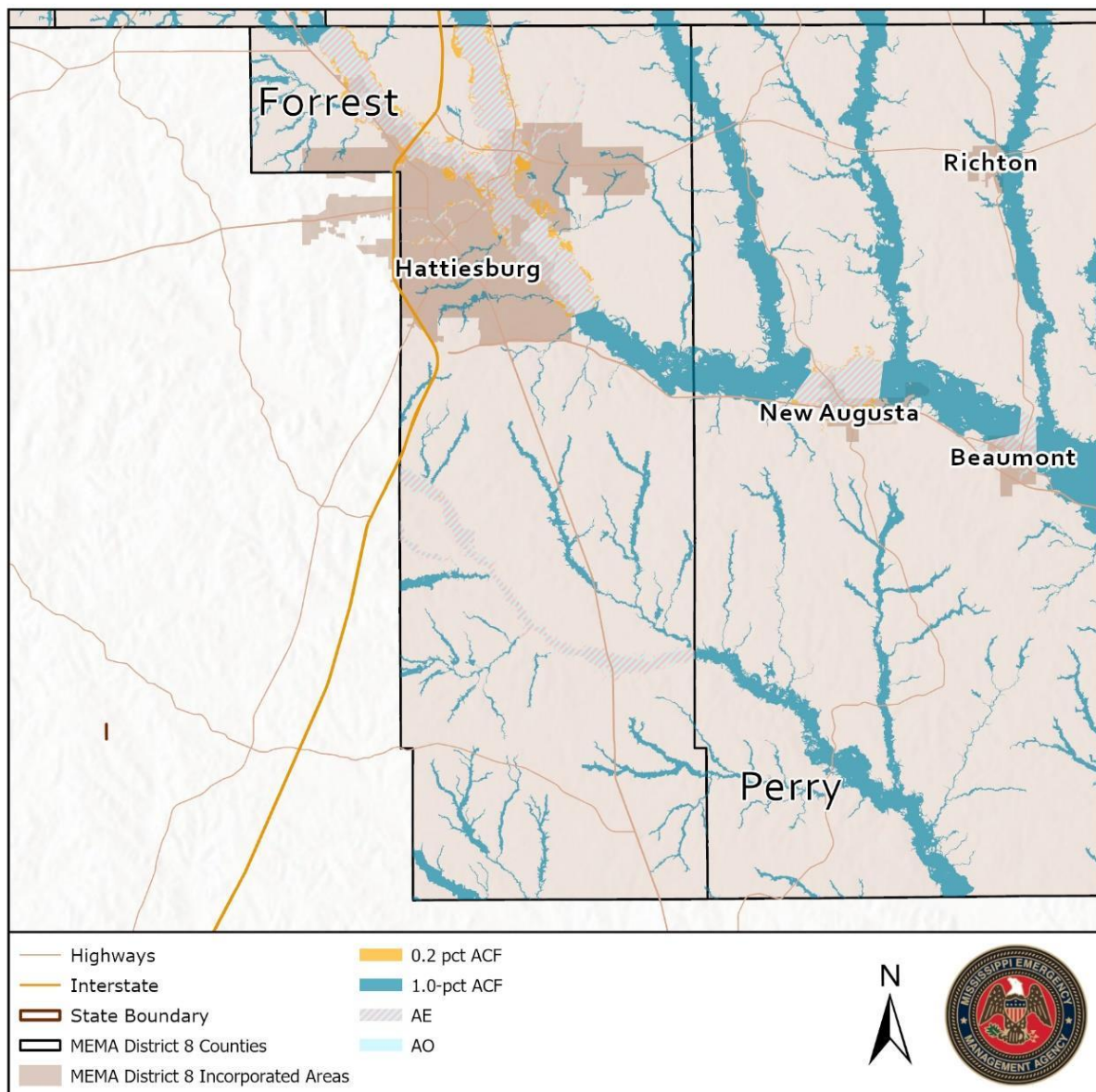
This subsection includes hazard profiles for each of the significant hazards identified in *Section 4: Hazard Identification* as they pertain to Forrest County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in *Section 5: Hazard Profiles*.

B.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Forrest County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain).

FIGURE B.2: SPECIAL FLOOD HAZARD AREAS IN FORREST COUNTY



HISTORICAL OCCURRENCES

Floods resulted in eight disaster declarations in Forrest County in 1970 and 2024. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National Centers for Environmental Information reported a total of 107 events in Forrest County since 2000. A summary of these events is presented in **Table B.5**. These events accounted for over \$9.1 million in property damage in the county. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table B.6**.

TABLE B.5: SUMMARY OF FLOOD OCCURRENCES IN FORREST COUNTY

LOCATION	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Hattiesburg</i>	42	0	0	\$2,668,000	\$0
<i>Petal</i>	15	0	0	\$684,000	\$0
<i>Unincorporated Area</i>	50	0	0	\$5,790,000	\$0
Forrest County Total:	107	0	0	\$9,142,000	\$0

Source: NCED/NOAA

TABLE B.6: HISTORICAL FLOOD EVENTS IN FORREST COUNTY

Location	Date	Type	Deaths	Injuries	Property Damage
The City of Hattiesburg					
<i>Hattiesburg</i>	3/2/2001	<i>Flash Flood</i>	0	0	\$0
<i>Hattiesburg</i>	9/4/2001	<i>Flash Flood</i>	0	0	\$100,000
<i>Hattiesburg</i>	12/13/2001	<i>Flash Flood</i>	0	0	\$0
<i>Hattiesburg</i>	6/21/2003	<i>Flash Flood</i>	0	0	\$30,000
<i>Hattiesburg</i>	6/27/2003	<i>Flash Flood</i>	0	0	\$1,000
<i>Hattiesburg</i>	6/30/2003	<i>Flash Flood</i>	0	0	\$10,000
<i>Hattiesburg</i>	8/20/2003	<i>Flash Flood</i>	0	0	\$20,000
<i>Hattiesburg</i>	2/23/2004	<i>Flash Flood</i>	0	0	\$45,000
<i>Hattiesburg</i>	6/1/2004	<i>Flash Flood</i>	0	0	\$302,000
<i>Hattiesburg</i>	7/6/2004	<i>Flash Flood</i>	0	0	\$0
<i>Hattiesburg</i>	4/14/2007	<i>Flash Flood</i>	0	0	\$400,000
<i>Hattiesburg</i>	7/29/2008	<i>Flash Flood</i>	0	0	\$600,000
<i>Hattiesburg</i>	5/16/2009	<i>Flash Flood</i>	0	0	\$2,000
<i>Hattiesburg</i>	1/24/2010	<i>Flash Flood</i>	0	0	\$5,000
<i>Hattiesburg</i>	3/5/2011	<i>Flash Flood</i>	0	0	\$1,000
<i>Hattiesburg</i>	7/24/2011	<i>Flash Flood</i>	0	0	\$10,000
<i>Hattiesburg ARP</i>	2/18/2012	<i>Flash Flood</i>	0	0	\$0
<i>Hattiesburg ARP</i>	3/21/2012	<i>Flash Flood</i>	0	0	\$50,000
<i>Hattiesburg</i>	7/18/2012	<i>Flash Flood</i>	0	0	\$6,000
<i>Hattiesburg</i>	8/29/2012	<i>Flash Flood</i>	0	0	\$20,000
<i>Hattiesburg</i>	6/6/2013	<i>Flash Flood</i>	0	0	\$0
<i>Hattiesburg</i>	8/13/2013	<i>Flash Flood</i>	0	0	\$0
<i>Hattiesburg</i>	2/4/2014	<i>Flash Flood</i>	0	0	\$20,000
<i>Hattiesburg</i>	2/20/2014	<i>Flash Flood</i>	0	0	\$10,000
<i>Hattiesburg</i>	12/24/2015	<i>Flash Flood</i>	0	0	\$5,000
<i>Hattiesburg</i>	3/10/2016	<i>Flash Flood</i>	0	0	\$5,000
<i>Hattiesburg</i>	3/31/2016	<i>Flash Flood</i>	0	0	\$15,000

<i>Hattiesburg</i>	1/21/2017	<i>Flash Flood</i>	0	0	\$15,000
<i>Hattiesburg</i>	8/9/2017	<i>Flash Flood</i>	0	0	\$303,000
<i>Hattiesburg</i>	8/18/2018	<i>Flash Flood</i>	0	0	\$5,000
<i>Hattiesburg</i>	11/1/2018	<i>Flash Flood</i>	0	0	\$5,000
<i>Hattiesburg</i>	12/27/2018	<i>Flash Flood</i>	0	0	\$100,000
<i>Hattiesburg</i>	1/23/2019	<i>Flash Flood</i>	0	0	\$5,000
<i>Hattiesburg ARP</i>	1/23/2019	<i>Flash Flood</i>	0	0	\$1,000
<i>Hattiesburg</i>	5/9/2019	<i>Flash Flood</i>	0	0	\$3,000
<i>Hattiesburg</i>	2/10/2020	<i>Flash Flood</i>	0	0	\$2,000
<i>Hattiesburg</i>	5/27/2020	<i>Flash Flood</i>	0	0	\$2,000
<i>Hattiesburg</i>	6/24/2021	<i>Flash Flood</i>	0	0	\$35,000
<i>Hattiesburg</i>	8/30/2021	<i>Flash Flood</i>	0	0	\$5,000
<i>Hattiesburg</i>	6/10/2022	<i>Flash Flood</i>	0	0	\$10,000
<i>Hattiesburg</i>	8/24/2022	<i>Flash Flood</i>	0	0	\$220,000
<i>Hattiesburg</i>	12/14/2022	<i>Flash Flood</i>	0	0	\$300,000
City of Petal					
<i>Petal</i>	6/12/2001	<i>Flash Flood</i>	0	0	\$25,000
<i>Petal</i>	9/26/2002	<i>Flash Flood</i>	0	0	\$1,000
<i>Petal</i>	9/2/2008	<i>Flash Flood</i>	0	0	\$130,000
<i>Petal</i>	6/1/2010	<i>Flash Flood</i>	0	0	\$25,000
<i>Petal</i>	7/22/2014	<i>Flash Flood</i>	0	0	\$5,000
<i>Petal</i>	9/16/2014	<i>Flash Flood</i>	0	0	\$3,000
<i>Petal</i>	8/8/2017	<i>Flash Flood</i>	0	0	\$2,000
<i>Petal</i>	8/9/2017	<i>Flash Flood</i>	0	0	\$200,000
<i>Petal</i>	7/6/2018	<i>Flash Flood</i>	0	0	\$30,000
<i>Petal</i>	8/18/2018	<i>Flash Flood</i>	0	0	\$10,000
<i>Petal</i>	12/27/2018	<i>Flash Flood</i>	0	0	\$10,000
<i>Petal</i>	1/23/2019	<i>Flash Flood</i>	0	0	\$2,000
<i>Petal</i>	4/18/2019	<i>Flash Flood</i>	0	0	\$10,000
<i>Petal</i>	7/14/2019	<i>Flash Flood</i>	0	0	\$1,000
<i>Petal</i>	8/24/2022	<i>Flash Flood</i>	0	0	\$230,000
Unincorporated Area in Forrest County					
<i>Countywide</i>	3/3/2001	<i>Flash Flood</i>	0	0	\$0
<i>Countywide</i>	6/11/2001	<i>Flash Flood</i>	0	0	\$7,000
<i>Countywide</i>	10/13/2001	<i>Flash Flood</i>	0	0	\$0
<i>Countywide</i>	8/16/2003	<i>Flash Flood</i>	0	0	\$10,000
<i>Countywide</i>	3/31/2005	<i>Flash Flood</i>	0	0	\$40,000
<i>North Portion</i>	4/1/2005	<i>Flash Flood</i>	0	0	\$100,000
<i>Countywide</i>	8/29/2005	<i>Flash Flood</i>	0	0	\$300,000
<i>Rock Hill</i>	9/2/2008	<i>Flash Flood</i>	0	0	\$20,000
<i>Dixie Pine</i>	3/25/2009	<i>Flash Flood</i>	0	0	\$200,000
<i>Rock Hill</i>	3/27/2009	<i>Flash Flood</i>	0	0	\$50,000
<i>Macedonia</i>	4/12/2009	<i>Flash Flood</i>	0	0	\$400,000
<i>Ragland</i>	4/13/2009	<i>Flash Flood</i>	0	0	\$200,000

Bonhomie	5/4/2009	Flash Flood	0	0	\$15,000
Rawls Springs	9/16/2009	Flash Flood	0	0	\$5,000
Brooklyn	12/14/2009	Flash Flood	0	0	\$25,000
McLaurin	3/8/2011	Flash Flood	0	0	\$250,000
Bonhomie	3/9/2011	Flash Flood	0	0	\$20,000
Epps	6/7/2011	Flash Flood	0	0	\$5,000
Riverside	7/12/2011	Flash Flood	0	0	\$5,000
Carnes	7/12/2011	Flash Flood	0	0	\$5,000
Riverside	9/5/2011	Flash Flood	0	0	\$50,000
Maybank	1/26/2012	Flash Flood	0	0	\$5,000
McLaurin	3/22/2012	Flash Flood	0	0	\$50,000
Bonhomie	4/14/2013	Flash Flood	0	0	\$100,000
Riverside	4/28/2013	Flash Flood	0	0	\$0
Dixie Pine	7/5/2015	Flash Flood	0	0	\$1,000
McCallum	3/11/2016	Flash Flood	0	0	\$8,000
Rawls Springs	3/11/2016	Flash Flood	0	0	\$40,000
Dixie Pine	3/11/2016	Flash Flood	0	0	\$50,000
Glendale	3/11/2016	Flash Flood	0	0	\$30,000
Dragon	3/11/2016	Flash Flood	0	0	\$300,000
Rock Hill	3/11/2016	Flash Flood	0	0	\$20,000
Carnes	3/17/2016	Flash Flood	0	0	\$10,000
Dixie Pine	3/31/2016	Flash Flood	0	0	\$10,000
Riverside	4/14/2016	Flash Flood	0	0	\$10,000
Riverside	12/13/2016	Flash Flood	0	0	\$5,000
Riverside	1/1/2017	Flash Flood	0	0	\$3,000
Fruitland Park	1/2/2017	Flash Flood	0	0	\$2,000
Dixie Pine	1/2/2017	Flash Flood	0	0	\$1,000
Bonhomie	4/30/2017	Flash Flood	0	0	\$15,000
Maybank	6/6/2017	Flash Flood	0	0	\$700,000
Macedonia	6/16/2017	Flash Flood	0	0	\$20,000
County	6/22/2017	Flood	0	0	\$20,000
Carnes	7/24/2017	Flash Flood	0	0	\$19,000
Dixie Pine	8/10/2017	Flash Flood	0	0	\$30,000
Glendale	8/16/2017	Flash Flood	0	0	\$3,000
Riverside	12/27/2018	Flash Flood	0	0	\$75,000
Dixie Pine	12/27/2018	Flash Flood	0	0	\$150,000
Maybank	12/27/2018	Flash Flood	0	0	\$300,000
Rawls Springs	12/28/2018	Flash Flood	0	0	\$300,000
Dixie Pine	1/23/2019	Flash Flood	0	0	\$2,000
Glendale	4/18/2019	Flash Flood	0	0	\$2,000
Brooklyn	5/11/2019	Flash Flood	0	0	\$1,705,000
Rock Hill	5/11/2019	Flash Flood	0	0	\$20,000
Brooklyn	4/24/2021	Flash Flood	0	0	\$5,000
Bonhomie	4/24/2021	Flash Flood	0	0	\$2,000
Carnes	6/19/2021	Flash Flood	0	0	\$10,000
Bonhomie	2/3/2022	Flash Flood	0	0	\$4,000
Macedonia	3/18/2022	Flash Flood	0	0	\$1,000

<i>Riverside</i>	<i>4/5/2022</i>	<i>Flash Flood</i>	<i>0</i>	<i>0</i>	<i>\$15,000</i>
<i>Riverside</i>	<i>4/17/2022</i>	<i>Flash Flood</i>	<i>0</i>	<i>0</i>	<i>\$15,000</i>
<i>McCallum</i>	<i>8/24/2022</i>	<i>Flash Flood</i>	<i>0</i>	<i>0</i>	<i>\$25,000</i>

TABLE B.7: EXTENT: FLOOD EVENTS IN FORREST COUNTY SINCE THE LAST UPDATE

Forrest County: \$2.632 Million					
Location	Date	Loss	Cause	Impact	
Petal & County	1/23/2019	\$10,000	A low-pressure system moved east across the region, bringing widespread rainfall and a few strong to severe thunderstorms. Training thunderstorms across the Pine Belt led to flash flooding.	- Streets were flooded in West Hattiesburg, and runoff from heavy rain flooded the area near the intersection of Woody Clark Road and Batson Road. - Flash flooding occurred along McCall Street. - Jackson Avenue was closed due to flash flooding in Petal.	
Hattiesburg	4/18/2019	\$12,000	- During the daytime hours of April 18th, a developing storm system helped generate a large line of thunderstorms which then moved across the region. - The combination of multiple environmental features, set the stage for 43 tornadoes to occur over the forecast area. This ranks as 4th most for a single event across the forecast area. In addition to the tornadoes, widespread wind damage occurred as well.	The combination of multiple environmental features, set the stage for 43 tornadoes to occur over the forecast area. This ranks as 4th most for a single event across the forecast area. In addition to the tornadoes, widespread wind damage occurred as well. Roads were flooded across Hattiesburg and Petal.	
Petal & Glendale	5/09/2019	\$3,000	A slow-moving low-pressure system moved northeast from the High Plains region toward the Great Lakes between May 8th and 9th.	Water covered the westbound lanes of West Fourth Street near the Century Park Residence Halls on the University of Southern Mississippi campus.	
County	5/11/2019	\$1,735,000	After a cold front stalled across the ArkLaMiss region the day before, the remnant stationary front served as a focus for the development of widespread showers and thunderstorms on May 11th.	- Several roads across southern Forrest County were flooded including portions of Old Highway 49 between Brooklyn and Maxie. A few roads were also washed out including Churchwell Rd., Tower Rd., Entekin Road, Worth Nall Rd. and Bud Myers Rd. - Rockhill Brooklyn Rd. and A B Simmons Rd. were closed due to water covering the roadways after an additional round of heavy rain moved through. Old Highway 49 was closed near Brooklyn due to flash flooding along several portions of it from near Bud Myers Rd. south to near Yeaton Spur Rd.	
Petal	7/14/2019	\$1,000	Hurricane Barry made landfall in Louisiana and quickly weakened to a tropical storm as it moved inland across the region. The storm brought severe storms & flash flooding to the region on July 14th.	Jackson Avenue was closed in the city of Petal due to about 2 feet of water on the street.	
Hattiesburg	2/10/2020	\$2,000	Anomalous moisture was in place across the ArkLaMiss region as a stationary front was draped across the area.	- Some locations saw locally higher amounts of nine to ten inches. Around I-20, two to four inches of rain fell, while near an inch fell across the Highway 84 corridor. - Flooding occurred along Highway 49 between Hardy Street and Old Highway 42.	
Hattiesburg	5/27/2020	\$2,000	Afternoon showers and thunderstorms occurred across the region as a warm, moist and unstable airmass was in place.	Intermittent flooding occurred along Hardy Street between Highway 49 and 38th Avenue.	
Brooklyn	4/24/2021	\$7,000	Showers and thunderstorms developed in association with a frontal system that moved through the region.	Water covered a road and flowed over a bridge near Brooklyn.	

Carnes	6/19/2021	\$10,000	Heavy rainfall associated with Tropical Storm Claudette produced flash flooding in southeast Mississippi.	Heavy rain associated with Tropical Storm Claudette caused flash flooding in far southern portions of Forrest County. A culvert along Joe Lee Road washed out, several roads in Brooklyn including Main Street and 4th street were flooded, and John Morris Road near Carnes was flooded.
Hattiesburg	6/24/2021	\$35,000	Scattered thunderstorms in late June produced isolated damaging winds and flash flooding.	Hardy Street from 31st Avenue to 38th Avenue was flooded, and three vehicles were stranded in floodwaters beneath the 4th Street bridge.
Hattiesburg	8/30/2021	\$5,000	Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30.	Rainfall amounts of 4-8 inches occurred, which resulted in flash flooding. Water covered the roadway at the intersection of Highway 49 and West Pine Street as well as at North 28th Avenue and Sims Road.
County	2/3/2022	\$4,000	A warm and anomalously moist airmass was in place across Mississippi ahead of a cold front. This front moved through the region early on the 3rd, with arctic air spilling south behind it. Ahead of the front, showers and thunderstorms developed, with some being severe and producing damaging winds. Given the high moisture content present, locally heavy rainfall occurred and resulted in localized flash flooding.	• Rainfall amounts of four to over 5 1/2 inches fell in portions of the Pine Belt. • Heavy rain fell across the Hattiesburg area. Storm totals around 4.7 to 5.7 inches fell across portions of the area. This resulted in instances of flash flooding across Hattiesburg. Flash flooding occurred on Annie Christie Ln. and Collins Str. in Hattiesburg, as well as on Chester Brown Rd. Flooding occurred on Highway 49 and W 7th Ave.
County	3/18/2022	\$1,000	Showers and thunderstorms developed in the warm, moist airmass south of a warm front.	• Flash flooding occurred as storms began to move over the same region. • Barrontown Road was flooded.
Riverside	4/05/2022	\$15,000	A low-pressure system moving east along the Arkansas Louisiana border helped to organize a line of severe thunderstorms early in the morning of April 5th.	After 2 to 3 inches of heavy rain fell over the Hattiesburg area, several streets in downtown mainly south of Gordons Creek were affected by flash flooding. Some roads were closed for several hours as waters pooled and then receded. This included areas near the intersection of Hardy Street and Williams Street, Bay Street, the intersection of Katie Avenue and Charles Street, the intersection of 25th Avenue and 7th Street, a portion of US Highway 49 near West Pine Street, and Short Bay Street.
Riverside	4/17/2022	\$15,000	Several rounds of severe thunderstorms produced large hail, damaging wind gusts, and tornadoes through the day on April 17th.	US Highway 49 at the 4th Street overpass was closed due to flooding, and the intersection of 7th St. and 25th St. was closed due to flooding.
Hattiesburg	6/10/2022	\$10,000	Storms occurred on June 10 th which led to heavy rain and flash flooding.	• South 15th Avenue was closed due to Flash Flooding. • Barter street and South 17th Avenue were closed due to flash flooding. Vehicles were also stalled along South 17th Avenue.
Hattiesburg & Petal	8/24/2022	\$475,000	A low-pressure system spinning over northern Louisiana and southern Arkansas brought several rounds of showers and thunderstorms producing heavy rain to Mississippi August 24th through 25th.	• This resulted in widespread flooding of roads, homes, and businesses. • Flooding at Klondyke Str. and Hardy Str. • Flooding reported at the University of Southern Mississippi. Flooding on Hardy Street between 10th and 11th Streets and near 17th Str. in Hattiesburg. • A car flooded and high-water rescue on Highway 49 in Hattiesburg. • There was flooding at Sherry Lynn Drive and Oaklawn Drive and also on Robinson Drive and Leeville Road in Petal
	12/14/2022	\$300,000	Severe thunderstorms moved across Mississippi during the evening and overnight hours of the 13th into the 14th, with flash flooding across areas of the Delta and several tornadoes.	Heavy rain with thunderstorms across Hattiesburg resulted in numerous reports of flash flooding, with homes and vehicles impacted by high water. Water rescues from stalled vehicles occurred along Hardy Street

Hattiesburg

with Mcleod Street and Main streets blocked due to high water, flooding along Mamie Street, with reports of flooding across numerous other roads across town including near Providence Street and Old highway 42.

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES & REPETITIVE LOSS PROPERTIES

Recently, FEMA issued a directive that prevents states or local governments from sharing NFIP information such as rep loss or severe rep loss data with third parties. Third parties are considered as consultants, contractors, etc. As a result, for continuity of information so that the reader will have an idea of the historical occurrences along with the corresponding damage amounts, unless the Jurisdiction requests the information and shares it with the committee, the decision was made to leave the existing information in the plan unless the Jurisdictions sent the requested information from FEMA to put in the plan.

Furthermore, since most of the flooding was from flash flooding which occurs quickly, it was difficult to find flood depth information. As of May 2024, there are no non-mitigated repetitive loss properties located in Forrest County. **Table B.9** presents detailed information on repetitive loss properties and NFIP claims and policies for Forrest County. This remains the best available data.

According to FEMA flood insurance policy records as of August 2024, there have been \$243,475 flood losses reported in Forrest County through the National Flood Insurance Program (NFIP). A summary of these figures for the county is provided in **Table B.8**. It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Forrest County were either uninsured, denied claims payment, or not reported.

TABLE B.8: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSSES IN FORREST COUNTY

Location	Flood Losses	Claim Payments	Repetitive Loss Properties	Number of Properties	Number of Losses	Total Payments	Average Payments
Hattiesburg	23	\$243,475		29	110	\$2,285,849	\$584,934
Petal	0	\$0		0	0	\$0	\$0
Unincorporated Area	0	\$0		0	0	\$0	\$0
Forrest County Total:	23	\$243,475		29	74	\$1,379,010	\$689,505

*These communities do not participate in the National Flood Insurance Program. Therefore, no values are reported.

Source: FEMA, NFIP

The information was requested from Forrest County, because a jurisdiction is the only one who can request and receive that information from FEMA. At the time of the plan update, this information was provided by the Planning Committee for inclusion in the plan.

PROBABILITY OF FUTURE OCCURRENCES

Due to the unpredictable nature of this hazard, flood events will remain a threat in Forrest County, and the probability of future occurrences will remain likely (between 10 and 100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the region. For example, the area near Petal has more floodplain and thus a higher risk of flood than areas near Hattiesburg. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

B.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Erosion in Forrest County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Forrest County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Forrest County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

Forrest County has a flood damage prevention ordinance that includes measures to limit erosion, such as restricting uses that result in damaging increases in erosion. Such actions will continue to be implemented as necessary throughout the region.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Forrest County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

If the climate continues to change as scientists predict, the higher intensity and magnitude of storms and the increasing drought and high heat days, can lead to erosion in areas that have not been impacted by erosion in the past. Also, the chance of heavy rain leading to flash flooding could also increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding cascading effects are possible such as erosion of soil from the ground, under/ around trees, and under roads. This can lead to falling trees, power outages, and road damage.

B.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

According to the Mississippi Division of Environmental Quality, there are seven high hazard dams in Forrest County. At least two dams, Lake B Dam and Lakeland Drive Lake Dam were initially rated low and a non-applicable status, respectively. Both have of their ratings have been escalated to high. However, there are no recorded incidents of dam failure or breach of dams in Forrest County. In 1983 however, a dam in neighboring Lamar County failed causing a significant amount of damages in the City of Hattiesburg. Beginning in 2006, owners of lakes are required to have an Emergency Action Plan on file with the State of Mississippi and local emergency management office.

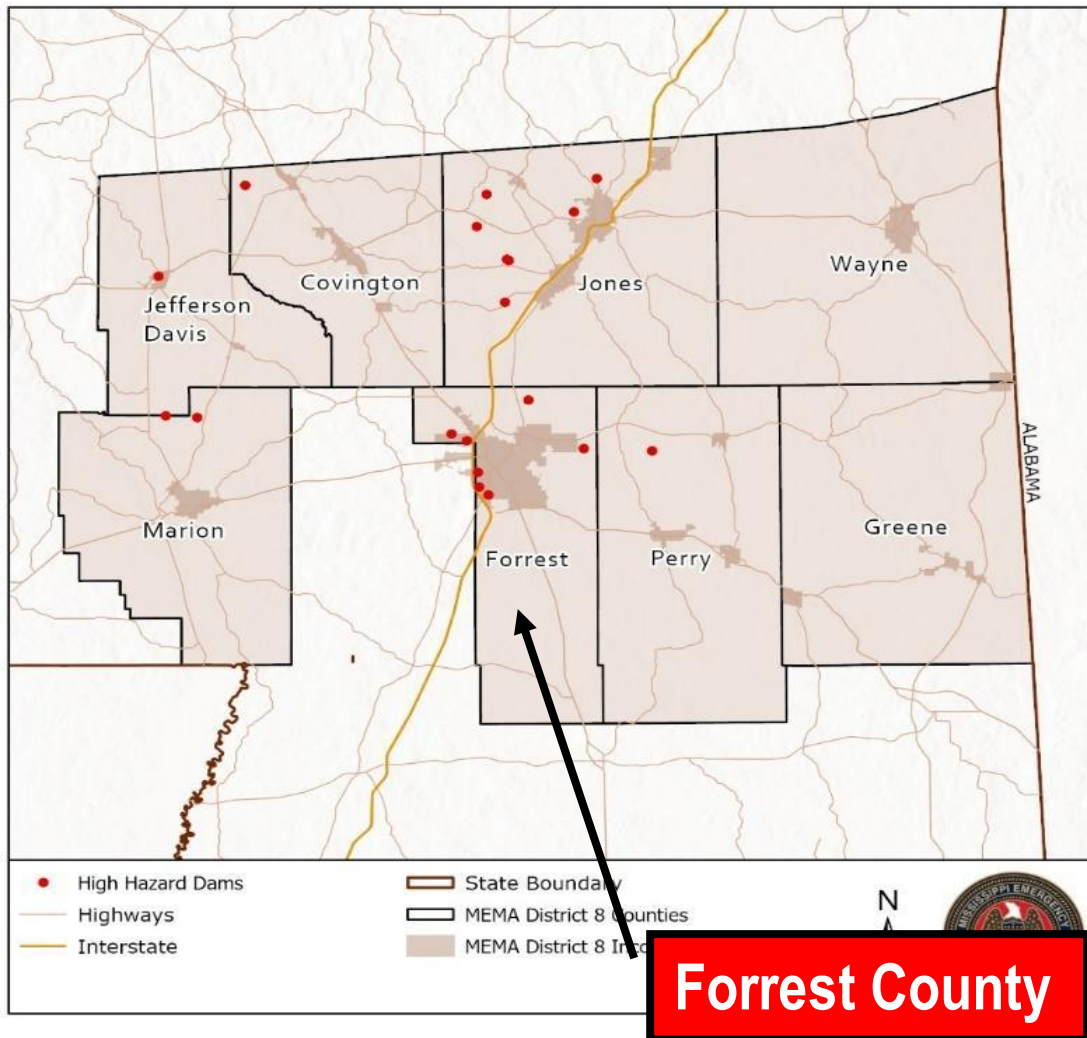
According to a consensus of local government officials and the Regional Hazard Mitigation Council, a majority of these dams would not pose a major threat in a breach or failure occurrence. See **Table B.9** and **Figure B.3**.

TABLE B.9: FORREST COUNTY HIGH HAZARD DAMS

Dam Name	Hazard Potential
Lynn Cartlage Lake Dam	HIGH

Country Club Lake	HIGH
Lake Seho (USM Campus Lake) Dam	HIGH
Lake B Dam	HIGH
40th Place Dam	HIGH
Pleasant Ridge Estates Dam	HIGH
Lakeland Drive Lake Dam	HIGH

Source: MDEQ

FIGURE B.3: FORREST COUNTY HIGH HAZARD DAM LOCATIONS

HISTORICAL OCCURRENCES

There is no record of dam breaches in Forrest County. However, several breach scenarios in the county could be catastrophic.

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

B.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically

depends on the normal expected severity of local winter weather. Forrest County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of ten recorded winter storm events in Forrest County since 2002. These events resulted in almost \$620,000 in damages. Detailed information on the recorded winter storm events can be found in **Table B.10**.

TABLE B.10: HISTORICAL WINTER STORM IMPACTS IN FORREST COUNTY

Date	Type	Injuries/ Deaths	Property Damage
1/1/2002	Heavy Snow	0/0	\$5,000
1/19/2008	Heavy Snow	0/0	\$0
12/11/2008	Winter Weather	0/0	\$0
12/4/2009	Heavy Snow	0/0	\$0
1/1/2010	Cold/wind Chill	0/0	\$300,000
2/11/2010	Heavy Snow	0/0	\$300,000
1/9/2011	Winter Weather	0/0	\$0
12/8/2017	Winter Storm	0/0	\$0
1/16/2018	Winter Weather	0/0	\$0
2/15/2021	Winter Weather	0/0	\$15,000
Total:	10	0/0	\$620,000

Source: NCED/NOAA

There have been a couple of severe winter weather events in Forrest County. The text below describes one of the major events and associated impacts on the county. Similar impacts can be expected with severe winter weather.

January 2010 Winter Storm—This storm produced heavy snow across the region, with an average of three to four inches of snow. Some heavier amounts, between four to five inches, also fell in isolated areas. At the height of the snow, temperatures fell to near freezing, and accumulations occurred on roadways resulting in a number of traffic accidents. Additionally, some power outages occurred in the heaviest snow band due to the weight of wet snow on limbs and lines. The heaviest snow fell in the areas around Covington, Forrest, and Jones Counties.

February 11, 2010, Heavy Snow—At the National Weather Service office, a total of 4.7 inches of snow fell during the event. This is the 2nd largest February snowfall event and the 10th overall largest snowfall event on record. This heavy snow event was not just a local event. Heavy snow spanned a large portion of the South with a substantial swath of 3 to 6 inches which fell from north-central Texas through north and central Louisiana, central and southern Mississippi, Alabama and Georgia. Up to 6 inches of snow fell across portions of Forrest County, with 6 inches reported in Petal.

December 12, 2017—A mix of sleet and snow began shortly after midnight in Forrest County, with a transition to all snow by 5 a.m. Snowfall totals were mostly near 5 to 6 inches across the county.

January 16, 2018—Light snow fell across the county, with accumulations of up to 1.8 inches.

February 15, 2021—Light freezing rain fell across the county. Accumulation up to one tenth of an inch occurred with light icing in the trees in the northern half of the county.

Winter storms throughout the county have several negative externalities including hypothermia, cost of snow and debris cleanup, business and government service interruption, traffic accidents, and power outages. Furthermore, citizens may resort to using inappropriate heating devices that could lead to fire or an accumulation of toxic fumes.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Forrest County. According to historical information, the annual probability is possible (between 1 and 10 percent).

B.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Forrest County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Forrest County had drought levels (including abnormally dry) in the last twenty-four years (2000-2024). **Table B.11** shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE B. 11: HISTORICAL DROUGHT OCCURRENCES IN FORREST COUNTY

Abnormally Dry Moderate Drought Severe Drought Extreme Drought Exceptional Drought

Location	Date	Injuries/ Deaths	Property Damage	Crop Damage	Event/ Severity
Forrest County	10/1/2006	0/0	\$0	\$600,000	D3
Forrest County	5/1/2007	0/0	\$0	\$400,000	D3
Forrest County	6/1/2007	0/0	\$0	\$400,000	D3
Forrest County	7/1/2007	0/0	\$60,000	\$0	D3
Forrest County	10/1/2010	0/0	\$0	\$500,000	D2
Forrest County	11/15/2016	0/0	\$0	\$50,000	D3
Forrest County	12/1/2016	0/0	\$0	\$50,000	D2
Forrest County	9/1/2023	0/0	\$0	\$0	D3
Forrest County	10/1/2023	0/0	\$0	\$0	D3
Forrest County	11/1/2023	0/0	\$0	\$558,000	D4
Total:	10	0/0	\$60,000	\$2,558,000	

Source: NCED/NOAA

There have been several Drought events in Forrest County. The text below describes one of the major events and associated impacts on the county.

October 2006—During a four-and-a-half-month period, from June to the middle of October, abnormally dry conditions prevailed across most of the Jackson, MS County Warning Area (CWA). Widespread drought conditions were reported across the area during this time period. The U.S. Drought Monitor classified the drought as extreme (D3) over Southeast Mississippi. Drought conditions in the region peaked in intensity during early August over this area. This drought caused approximately \$600 thousand in crop damage.

May—July 2007—The area was defined by extreme drought (D3), which by the end of the month encompassed an area mainly along and east of Interstate 55 from Grenada to Jackson and along and north of Interstate 20 from Jackson to Meridian. Through May, the entire area within the drought experienced annual rainfall deficits between 12 and 16 inches, (15-25% of normal rainfall), with the driest conditions occurring across Eastern Mississippi.

By the end of May, crops across the state were beginning to feel the impact of the very dry conditions. At that point, some damage to crops had occurred with only small losses to yields expected.

The month of June did not offer much rain as most of the forecast area saw less than 40% of the normal rainfall. If you would go back to the start of the drought, the portion of the forecast area under the drought has only seen 5 to 20% of the annual rainfall. Historical climate sites are running some 15 to 20 inches below normal for rainfall with deficits now higher than the yearly total. With the drought conditions reaching extreme levels, area farmers and crops began feeling the effects. Many crops from corn to soybeans have been affected with yields forecast to be much less than normal by harvest time. The quality of the crops was affected as well due to the dry conditions.

The area saw a range to 6 to 11 inches of rain for the month July. Due to the lingering effects of the drought, there were still some agricultural losses during the first few days of July, albeit much less than what occurred during the peak of the drought which occurred during June.

October 2010—Very dry conditions continued across central Mississippi during most of October. There were some rains that came late in the month which provided some temporary relief. Rainfall amounts ranged from a half to two inches with locally higher amounts. Most locations were 1 to 3 inches below normal for the month. The dry stretch resulted in severe (D2) drought conditions to expand during the month with even the portions of extreme (D3) drought conditions expanding as well. Crops were put under stress under the warm and dry conditions. The likely impact will be less crop yields for harvest time. Rainfall was 1 to 2 inches below normal for the month. This resulted in severe drought conditions across the county by the end of the month. Some rain of 0.5 to 1 inch did affect the county toward the end of the month. This provided some brief relief to the drought conditions.

November – December—Very dry conditions continued into November, which resulted in an area of severe drought (D2). This eventually turned into extreme (D3) drought across Forrest County by the end of the month. Crops were put under more stress from the dry and hot conditions. Dry conditions continued into December, which created continued stress on crops. Showers and storms in late November relieved some of the worst drought conditions. However, much of the state began the month in severe (D2) drought. Additional showers and storms through the month continued to lessen drought conditions.

September – November 2023—The combined effects of persistent above-normal temperatures and minimal precipitation starting in early July 2023 resulted in mounting drought impacts across portions of much of southern and central Mississippi. Drought conditions in Forrest County intensified from D2 (Severe Drought) to D3 (Extreme Drought) as depicted on the U.S. Drought Monitor. Drought conditions in Forrest County persisted at D3 in November (Extreme Drought) as depicted on the U.S. Drought Monitor. Observed precipitation ranged from around 30 to 70 percent of normal in December, but some locations in southern Mississippi did receive near-normal rain for the month. Soil moisture values continued to worsen in areas of northern Mississippi where drought conditions worsened - with subsoil moisture values 30 to 40 percent below normal through the Delta region by month's end. Subsoil moisture values across the southern half of the state saw some improvement to between 15 to 30 percent below normal. These conditions placed a severe stress on pastures for livestock and cropland at the end of the growing season. Pine plantations and Christmas tree farms experienced severe losses especially among younger trees. In a study of over 13 million forested acres through western and central Mississippi surveyed by the Mississippi Forestry Commission, it was estimated that approximately 80,000 acres of pine trees were killed by drought stress. In the study area, this accounted for approximately 12.5 million pine trees lost. Stream flows on creeks and rivers were reduced. Drought conditions in Forrest County intensified from D3 (Extreme Drought) to D4 (Exceptional Drought) as depicted on the U.S. Drought Monitor.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

July 2005—A five-day heat wave covered the area. Temperatures were consistently above 95 degrees. One heat-stress fatality was reported in Covington County. The agricultural industry was hit particularly hard in the cattle and catfish sectors. Water supply issues were encountered by cities and a burn ban was implemented due to the high fire risk.

August 2005—A heat wave covering the south began in mid-August and lasted about 10 days. High temperatures were consistently over 95 degrees and surpassed 100 degrees on some days. It was the first time since August 2000 that 100-degree temperatures reached the area.

July 2006—A short heat wave impacted most of the area temperatures in the 90s to around 100 for five straight days.

August 2007—A heat wave gripped most of the area with the warmest temperatures since 2000. It lasted from August 5th to the 16th.

August 2010—A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Forrest County has a probability level of highly likely (100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude.

Heat Wave

Based on historical occurrence information, it is assumed that all of Forrest County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could impact the effects on the counties' crops, economy, and population.

B.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2023, Forrest County experiences an average of 19.6 wildfires annually which burn an average of 198.4 per year. The data indicates that most of these fires are small, averaging ten

acres per fire. **Table B.12** provides a summary of wildfire occurrences in Forrest County since the last update, and **Table B.13** lists the number of reported wildfire occurrences in the county between the years 2010 and 2023.

TABLE B.12: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2023) *

Forrest County	
Average Number of Fires per year	13.6
Average Number of Acres Burned per year	174.6
Average Number of Acres Burned per fire	12.84

Source: MS Forestry Commission

TABLE B.13: HISTORICAL WILDFIRE OCCURRENCES IN FORREST COUNTY

Forrest County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	33	59	25	27	21	7	17	8	10	6	10	9	12	31
Number of Acres Burned	112	742	391	177	104	167	167	55	156	89	147	234	201	202

Source: MS Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Wildfire events will be an ongoing occurrence in Forrest County. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due to local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to Forrest County for future wildfire events is likely (a 10 and 100 percent annual probability).

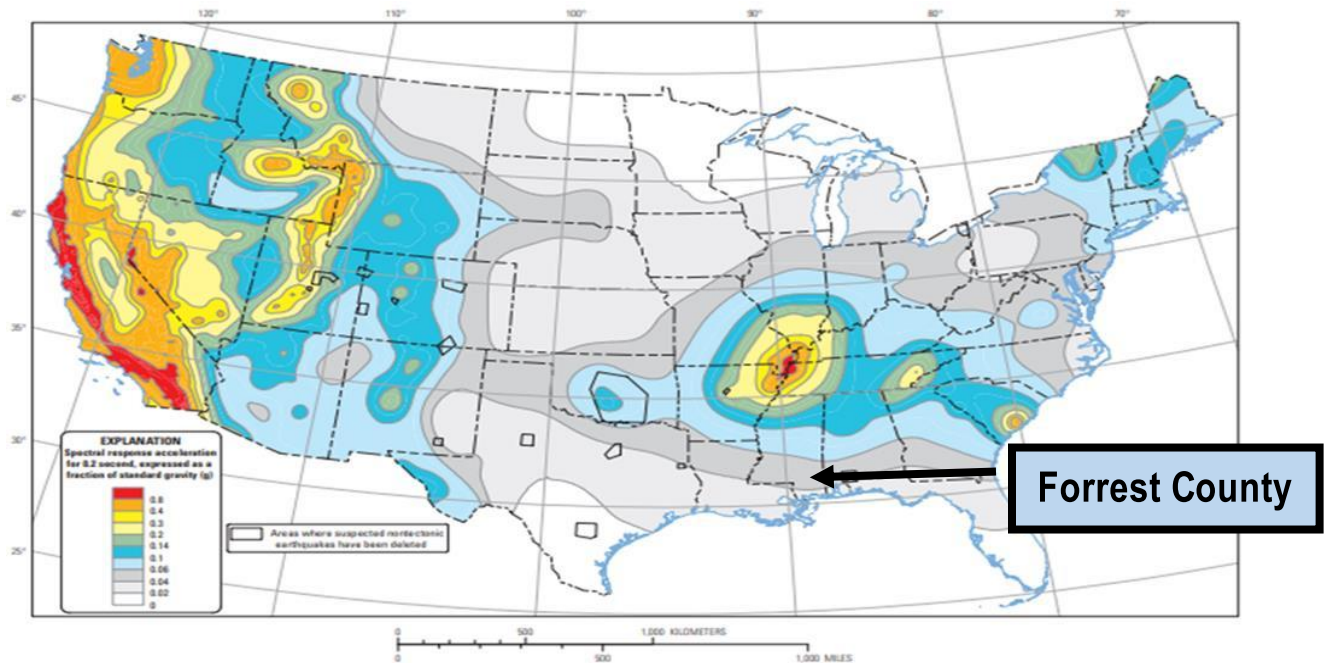
If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact on wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

If the predicted increase in heavy rains occur it can also cause flooding and erosion, which can also make the area more susceptible to wildfires.

B.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure B.4 shows the intensity level associated with Forrest County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, Forrest County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE B.4: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS

Source: USGS

HISTORICAL OCCURRENCES

No earthquakes are known to have affected Forrest County since 1638. **Table B.14** provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 and 2023.

TABLE B.14: SUMMARY OF SEISMIC ACTIVITY IN FORREST COUNTY

Location	Date	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
<i>Hattiesburg</i>	--	0	--	--
<i>Petal</i>	--	0	--	--
<i>Unincorporated Area</i>	--	0	--	--
Forrest County Total:		0	--	--

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Forrest County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

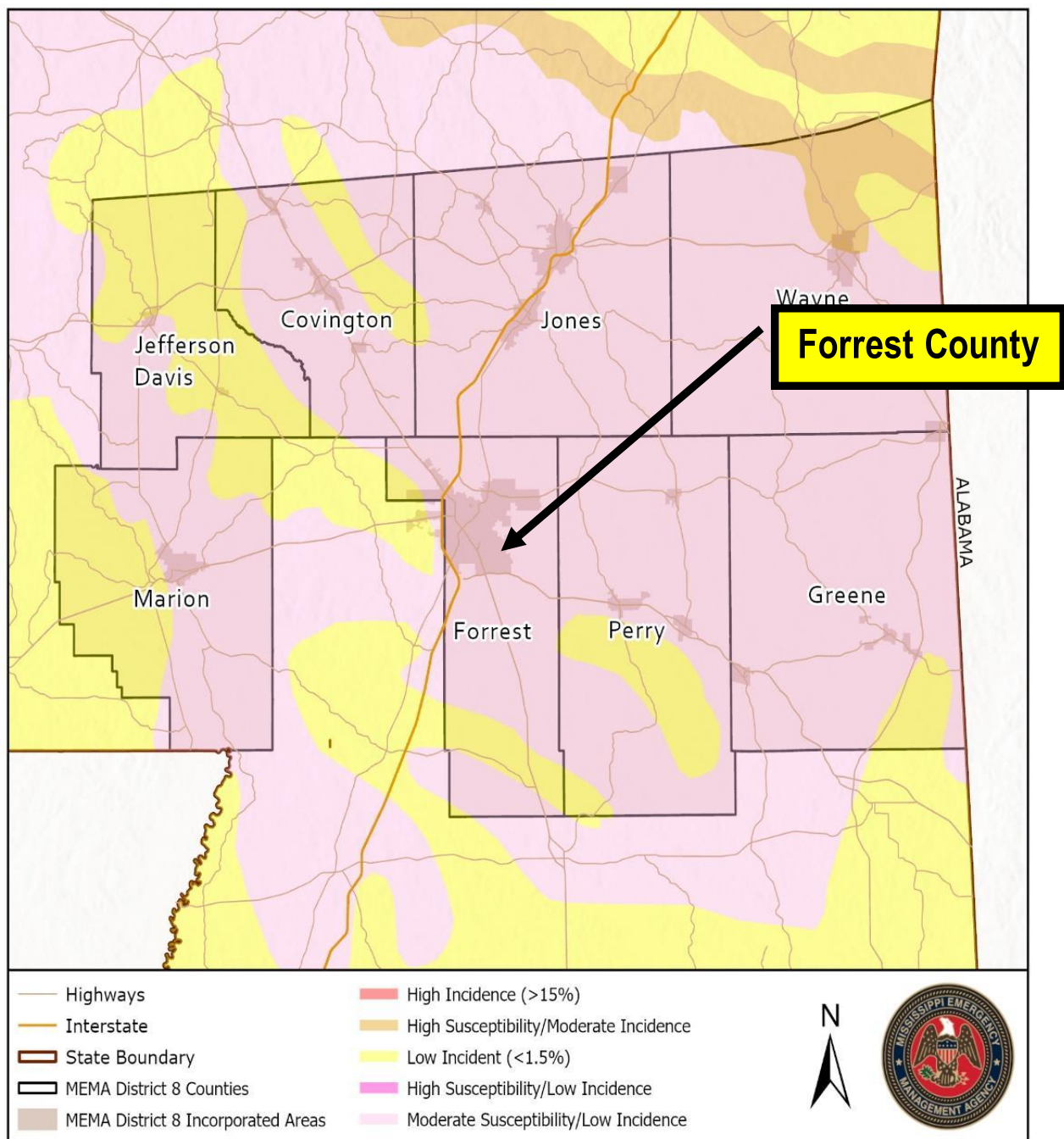
B.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. The most frequent and widespread damaging landslides in the U.S. are induced by prolonged or heavy rainfall. The majority of rainfall-induced landslides are shallow, small, and move quickly. Landslides are possible throughout Forrest County.

According to **Figure B.5** below, the county falls under a moderate Susceptibility/low incidence area (light pink), and low incidence (Yellow).

FIGURE B.5: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF FORREST COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Forrest County. Landslide events typically occur in isolated areas.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that all areas in Forrest County have a low landslide incidence rate. However, some areas are reported as having moderate susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Forrest County have greater risk than others given factors such as steepness on slope and modification of slopes.

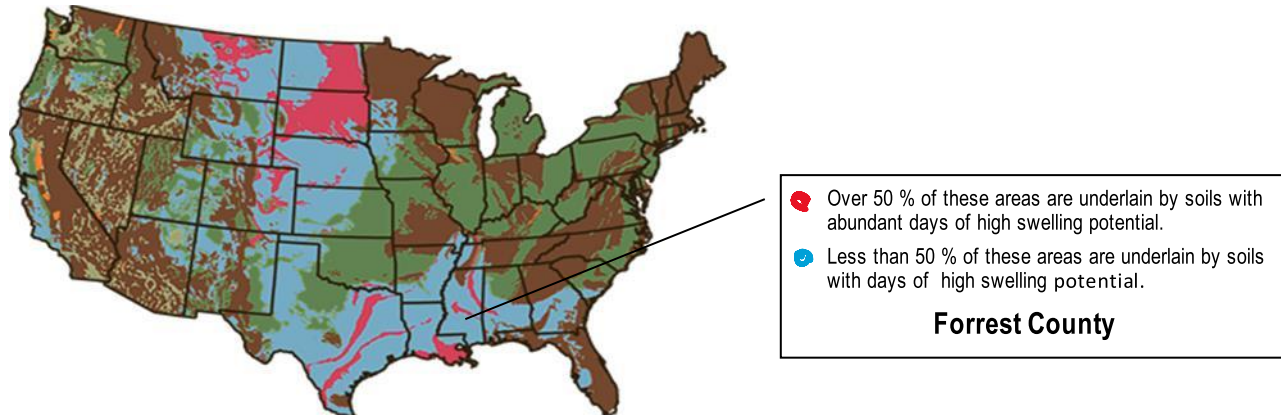
As the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

B.2.9 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Forrest County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure B.6**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential.

FIGURE B.6: SWELLING CLAYS IN MISSISSIPPI



Source: USGS

HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Forrest County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

B.2.10 Hurricane and Tropical Storm

LOCATION AND SPATIAL EXTENT

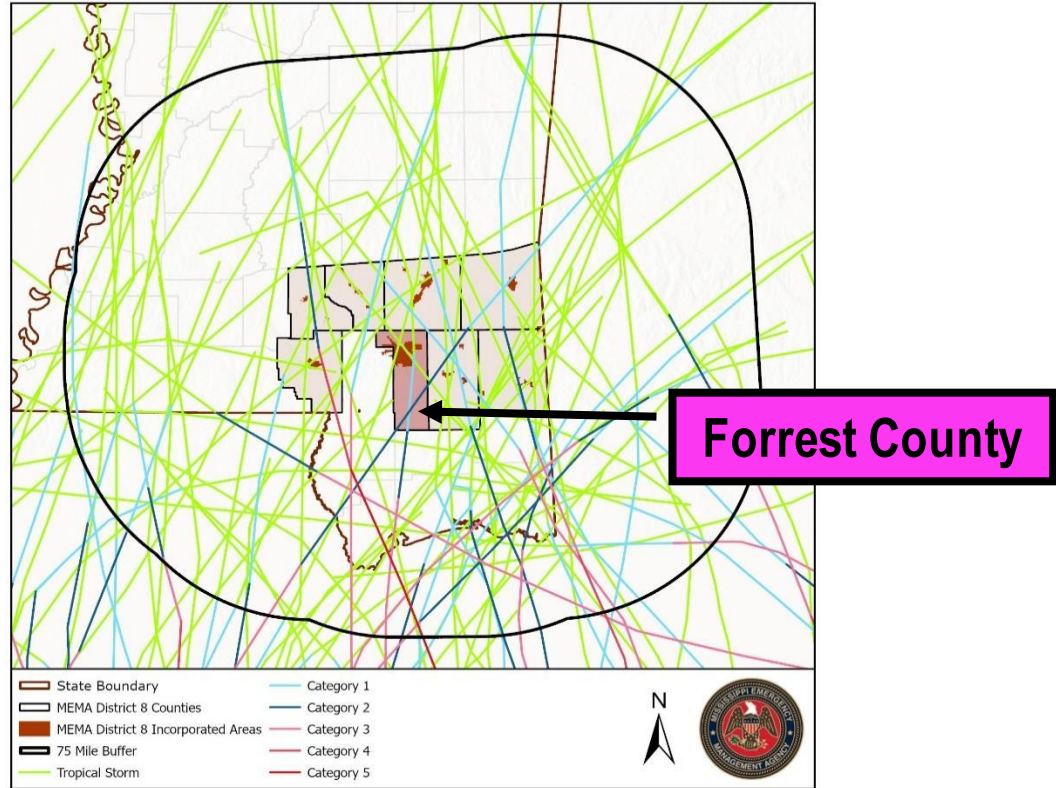
Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Forrest County. All areas in Forrest County are equally susceptible to hurricane and tropical storms.

HISTORICAL OCCURRENCES

According to the National Hurricane Center's historical storm track records, a total of 54 hurricanes have passed within 75 miles of Greene County since 1851. This includes 1 category 5 storm, 0 category 4 storms, 3 category 3 storms, 6 category 2 storms, 7 category 1 storms, and 37 tropical storms as shown in **Figure B.7**.

A total of five tracks passed directly through the county including Hurricanes Camille (1969), Edith (1971), and Isidore (2002). All storms were tropical storms when they traversed the county except Hurricane Camille and Hurricane Katrina, which passed through the county as category 3 hurricane. **Table B.15** provides the detail for each storm that passed through the county including date of occurrence, name (if applicable), maximum wind speed (as recorded when traversing the county) and category of the storm based on the Saffir-Simpson Scale.

FIGURE B.7: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF FORREST COUNTY



Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Dennis), 2005 (Hurricane Katrina), 2008 (Hurricane Gustav), and 2012 (Hurricane Isaac), 2017 (Hurricane Nate), 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial damage in the area due to high winds and flooding. Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county.

TABLE B.15: HISTORICAL STORM TRACKS WITHIN 75 MILES OF FORREST COUNTY (1850–2023)

Date of Occurrence	Storm Name	Maximum Wind Speed (mph)	Storm Category	Disaster Declaration	Property Damage	Crop Damage
10/10/1905	Unknown	40	Tropical Storm	--	Unknown	Unknown
9/30/1915	Unknown	69	Tropical Storm	--	Unknown	Unknown
9/4/1969	Hurricane Camille	115	Category 3	Yes, #271	Unknown	Unknown
9/16/1971	Hurricane Edith	Unknown	Tropical Storm	No	Unknown	Unknown
8/30/1979	Hurricane Fredrick	Unknown	Tropical Storm	Yes, #599	Unknown	Unknown
9/1998	Hurricane Georges	Unknown	Tropical Storm	Yes, #1251	Unknown	Unknown
9/26/2002	Hurricane Isadore	63	Tropical Storm	No	\$0	\$0
6/30/2003	Tropical Storm Bill	Unknown	Tropical Storm	No	\$0	\$0
7/1/2003	Hurricane Claudette	Unknown	Tropical Storm	No	\$0	\$0

9/16/2004	<i>Hurricane Ivan</i>	95	Category 1	Yes, #1550	\$93,750	\$31,300
7/6/2005	<i>Tropical Storm Cindy</i>	40	Tropical Storm	No	\$50,000	\$0
7/10/2005	<i>Hurricane Dennis</i>	55	Tropical Storm	Yes, 1594	\$20,000	\$150,000
8/29/2005	<i>Hurricane Katrina</i>	130	Category 3	Yes, #1604	\$750,000,000	\$90,000,000
9/1/2008	<i>Hurricane Gustav</i>	45	Tropical Storm	No	\$100,000	\$0
11/10/2009	<i>Tropical Storm Ida</i>	40	Tropical Storm	No	\$1,000	\$0
8/29/2012	<i>Hurricane Isaac</i>	45	Tropical Storm	Yes, 4081	\$200,000	\$0
9/4/2018	<i>Hurricane Gordon</i>	50	Depression	No	\$15,000	\$0
10/28/2020	<i>Hurricane Zeda</i>	58	Tropical Storm	No	\$40,000	\$0
8/30/2021	<i>Hurricane Ida</i>	50	Tropical Storm	Yes, #4626	\$50,000	\$0
9/12/2024	<i>TS Francine</i>	40	Tropical Storm	No	\$10,000	\$0
Total:	20	--	--		\$750,579,750	\$90,181,300

Source: National Hurricane Center and NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted the county as found below:

Hurricane Katrina – August 29, 2005—Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20.

Devastation from Hurricane Katrina was widespread across the region. Hurricane force winds were common across the area. The region received sustained winds of 60-80 mph with gusts ranging from 80-120 mph. There was widespread damage to trees and power lines. Wind damage to structures was also widespread, with roofs blown off or partially peeled. Hundreds of signs were shredded or blown down. Businesses sustained structural damage. Power outages lasted from a few days to as long as four weeks. Agriculture and timber industries were severely impacted. Row crops, including cotton, rice, corn, and soybeans, took a hard hit. Other impacted industries were the catfish industry, dairy and cattle industry, and nursery businesses. Hurricane Katrina caused over \$840 Million in property and crop damage in Forrest County. This was the costliest natural disaster to hit Forrest County.

August 30, 2021 – Hurricane Ida—Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30. It then turned northeast and moved across the Jackson metro area as a tropical storm and into northeast Mississippi as a tropical depression through the early morning of August 31. Ida brought tropical storm force gusts to portions of Mississippi, which brought down trees and power lines. Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding. Tropical storm force wind gusts resulted in several downed trees across the county.

September 12, 2024—Tropical Storm Francine produced strong wind damage as it weakened across central Mississippi. Winds blew down scattered trees and powerlines across Forrest County.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 per cent). Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientists and meteorologists predict tropical cyclones to increase in frequency, magnitude, and intensity as the climate continues to change. These increases could be catastrophic to MS Coastal areas and the counties near the coast. Scientists also predict that hurricanes could increase in frequency and strength in the near future due the effects of Climate Change. This can be seen in the 2023 season with 23 named storms, 11 hurricanes, and 5 major hurricanes. This prediction makes the season the third most active season on record, behind the 2005 season with 28, and the 2020 season with a total of 30. It is expected that an above-average season next season with up to 25 named storms and 4-7 major hurricanes.

B.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Forrest County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Forrest County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Forrest County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Forrest County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in eight disaster declarations in Forrest County in 1980, 1983, 1990, 2001, 2013, 2016, 2017, and 2018. According to NCEI, there have been 234 reported thunderstorm and high wind events since 2000 in Forrest County. These events caused over \$3.7 million in damages. **Table B.16** summarizes this information. **Table B.17** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE B.16: SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN FORREST COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
<i>Hattiesburg</i>	71	0	0	\$874,710	\$0
<i>Petal</i>	32	0	0	\$670,000	\$0
<i>Unincorporated Area</i>	120	2	2	\$2,187,290	\$3,000
Forrest County Total:	233	2	2	\$3,731,000	\$3,000

TABLE B.17: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN FORREST COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Hattiesburg							
<i>Hattiesburg</i>	3/27/2000	TSTM Wind	<i>Unknown</i>	0	0	\$7,000	\$0
<i>Hattiesburg</i>	5/2/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Hattiesburg</i>	6/25/2000	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Hattiesburg</i>	6/26/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Hattiesburg</i>	7/16/2000	TSTM Wind	<i>Unknown</i>	0	0	\$20,000	\$0
<i>Hattiesburg</i>	8/25/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Hattiesburg</i>	10/6/2000	TSTM Wind	<i>Unknown</i>	0	0	\$3,000	\$0
<i>Hattiesburg</i>	11/9/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0

Hattiesburg	1/29/2001	TSTM Wind	Unknown	0	0	\$3,000	\$0
Hattiesburg	3/12/2001	TSTM Wind	Unknown	0	0	\$25,000	\$0
Hattiesburg	6/13/2001	TSTM Wind	Unknown	0	0	\$20,000	\$0
Hattiesburg	8/17/2001	TSTM Wind	Unknown	0	0	\$2,000	\$0
Hattiesburg	10/13/2001	TSTM Wind	Unknown	0	0	\$2,000	\$0
Hattiesburg	12/13/2001	TSTM Wind	Unknown	0	0	\$2,000	\$0
Hattiesburg	4/8/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
Hattiesburg	7/28/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
Hattiesburg	12/24/2002	TSTM Wind	60 kts.	0	0	\$17,000	\$0
Hattiesburg	12/31/2002	TSTM Wind	65 kts.	0	0	\$6,000	\$0
Hattiesburg	6/3/2003	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Hattiesburg	7/22/2003	TSTM Wind	53 kts.	0	0	\$20,000	\$0
Hattiesburg	6/27/2004	TSTM Wind	43 kts.	0	0	\$2,000	\$0
Hattiesburg	11/27/2004	TSTM Wind	61 kts.	0	0	\$15,000	\$0
Hattiesburg	1/7/2005	TSTM Wind	57 kts.	0	0	\$5,000	\$0
Hattiesburg	3/22/2005	TSTM Wind	56 kts.	0	0	\$5,000	\$0
Hattiesburg	4/30/2005	TSTM Wind	52 kts.	0	0	\$15,000	\$0
Hattiesburg	5/29/2005	TSTM Wind	55 kts.	0	0	\$30,000	\$0
Hattiesburg	7/9/2005	TSTM Wind	50 kts.	0	0	\$0	\$0
Hattiesburg	3/20/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
Hattiesburg	5/8/2006	TSTM Wind	50 kts.	0	0	\$50,000	\$0
Hattiesburg	5/24/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
Hattiesburg	6/23/2006	TSTM Wind	53 kts.	0	0	\$30,000	\$0
Hattiesburg	7/19/2006	TSTM Wind	52 kts.	0	0	\$1,000	\$0
Hattiesburg	8/15/2006	TSTM Wind	60 kts.	0	0	\$100,000	\$0
Hattiesburg	1/5/2007	TSTM Wind	53 kts.	0	0	\$0	\$0
Hattiesburg	1/5/2007	TSTM Wind	55 kts.	0	0	\$5,000	\$0
Hattiesburg	4/14/2007	TSTM Wind	50 kts.	0	0	\$29,000	\$0
Hattiesburg ARPT	10/18/2007	TSTM Wind	50 kts.	0	0	\$12,000	\$0
Hattiesburg	7/13/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
Hattiesburg	8/7/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
Hattiesburg	12/10/2008	TSTM Wind	55 kts.	0	0	\$60,000	\$0
Hattiesburg	4/2/2009	TSTM Wind	58 kts.	0	0	\$2,500	\$0
Hattiesburg	7/4/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
Hattiesburg	10/9/2009	TSTM Wind	55 kts.	0	0	\$3,000	\$0
Hattiesburg	6/5/2010	TSTM Wind	58 kts.	0	0	\$5,000	\$0
Hattiesburg	7/16/2010	TSTM Wind	52 kts.	0	0	\$0	\$0
Hattiesburg	8/4/2010	TSTM Wind	45 kts.	0	0	\$4,000	\$0
Hattiesburg	8/4/2010	TSTM Wind	45 kts.	0	0	\$15,000	\$0
Hattiesburg ARPT	6/7/2011	TSTM Wind	50 kts.	0	0	\$32,000	\$0
Hattiesburg ARPT	6/7/2011	TSTM Wind	54 kts.	0	0	\$0	\$0
Hattiesburg	7/4/2011	TSTM Wind	50 kts.	0	0	\$100,000	\$0
Hattiesburg	7/13/2011	TSTM Wind	50 kts.	0	0	\$30,000	\$0
Hattiesburg	8/23/2011	TSTM Wind	51 kts.	0	0	\$0	\$0
Hattiesburg	4/3/2012	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Hattiesburg	5/31/2012	TSTM Wind	50 kts.	0	0	\$20,000	\$0
Hattiesburg	12/20/2012	TSTM Wind	50 kts.	0	0	\$3,000	\$0

<i>Hattiesburg ARPT</i>	7/30/2015	TSTM Wind	49 kts.	0	0	\$10	\$0
<i>Hattiesburg</i>	8/8/2015	TSTM Wind	54 kts.	0	0	\$10,000	\$0
<i>Hattiesburg</i>	2/15/2016	TSTM Wind	50 kts.	0	0	\$20,000	\$0
<i>Hattiesburg</i>	7/6/2016	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>Hattiesburg ARPT</i>	6/16/2017	TSTM Wind	55 kts.	0	0	\$25,000	\$0
<i>Hattiesburg ARPT</i>	7/31/2018	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Hattiesburg</i>	8/18/2018	TSTM Wind	39 kts.	0	0	\$2,000	\$0
<i>Hattiesburg</i>	6/27/2019	TSTM Wind	43 kts.	0	0	\$200	\$0
<i>Hattiesburg</i>	4/19/2020	TSTM Wind	50 kts.	0	0	\$20,000	\$0
<i>Hattiesburg ARPT</i>	4/19/2020	TSTM Wind	54 kts.	0	0	\$0	\$0
<i>Hattiesburg ARPT</i>	5/24/2020	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Hattiesburg</i>	3/17/2021	TSTM Wind	50 kts.	0	0	\$25,000	\$0
<i>Hattiesburg</i>	4/10/2021	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Hattiesburg</i>	6/10/2022	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Hattiesburg ARPT</i>	6/14/2023	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Hattiesburg</i>	1/9/2024	TSTM Wind	45 kts.	0	0	\$15,000	\$0
City of Petal							
<i>Petal</i>	4/3/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Petal</i>	8/10/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Petal</i>	1/19/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Petal</i>	5/17/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Petal</i>	5/17/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Petal</i>	6/21/2004	TSTM Wind	53 kts.	0	0	\$1,000	\$0
<i>Petal</i>	6/22/2004	TSTM Wind	35 kts.	0	0	\$1,000	\$0
<i>Petal</i>	4/22/2005	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Petal</i>	5/8/2006	TSTM Wind	60 kts.	0	0	\$50,000	\$0
<i>Petal</i>	7/19/2006	TSTM Wind	60 kts.	0	0	\$25,000	\$0
<i>Petal</i>	4/14/2007	TSTM Wind	61 kts.	0	0	\$60,000	\$0
<i>Petal</i>	6/19/2007	TSTM Wind	55 kts.	0	0	\$80,000	\$0
<i>Petal</i>	5/15/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Petal</i>	5/26/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Petal</i>	6/27/2008	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Petal</i>	8/12/2008	TSTM Wind	50 kts.	0	0	\$12,000	\$0
<i>Petal</i>	5/5/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Petal</i>	8/3/2010	TSTM Wind	52 kts.	0	0	\$8,000	\$0
<i>Petal</i>	7/11/2011	TSTM Wind	50 kts.	0	0	\$50,000	\$0
<i>Petal</i>	6/11/2012	TSTM Wind	55 kts.	0	0	\$50,000	\$0
<i>Petal</i>	10/13/2014	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Petal</i>	7/4/2015	TSTM Wind	63 kts.	0	0	\$7,000	\$0
<i>Petal</i>	2/23/2016	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Petal</i>	6/17/2016	TSTM Wind	50 kts.	0	0	\$7,000	\$0
<i>Petal</i>	4/3/2017	TSTM Wind	50 kts.	0	0	\$7,000	\$0
<i>Petal</i>	4/18/2019	TSTM Wind	53 kts.	0	0	\$8,000	\$0
<i>Petal</i>	6/5/2020	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Petal</i>	4/10/2021	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Petal</i>	4/13/2022	TSTM Wind	55 kts.	0	0	\$4,000	\$0

<i>Petal</i>	6/10/2022	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Petal</i>	7/12/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Petal</i>	5/13/2024	TSTM Wind	70 kts.	0	0	\$230,000	\$0
<i>Petal</i>	6/4/2024	TSTM Wind	52 kts.	0	0	\$20,000	\$0
Unincorporated Area in Forrest County							
<i>Brooklyn</i>	6/25/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Countywide</i>	7/22/2000	TSTM Wind	<i>Unknown</i>	0	0	\$10,000	\$0
<i>McLaurin</i>	8/10/2000	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Macedonia</i>	8/25/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Carnes</i>	12/13/2000	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>County</i>	12/13/2000	High Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Brooklyn</i>	1/19/2001	TSTM Wind	<i>Unknown</i>	0	0	\$15,000	\$0
<i>Carnes</i>	3/12/2001	TSTM Wind	<i>Unknown</i>	0	0	\$10,000	\$0
<i>Rock Hill</i>	3/12/2001	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Countywide</i>	6/11/2001	TSTM Wind	<i>Unknown</i>	0	0	\$18,000	\$0
<i>Carnes</i>	7/7/2002	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Countywide</i>	9/26/2002	TSTM Wind	<i>Unknown</i>	0	0	\$3,000	\$0
<i>Countywide</i>	4/7/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Central Portion of County</i>	6/14/2003	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Carnes</i>	8/20/2003	TSTM Wind	52 kts.	0	0	\$3,000	\$0
<i>Brooklyn</i>	10/26/2003	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Brooklyn</i>	11/24/2004	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Brooklyn</i>	7/2/2005	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>County</i>	3/9/2006	Strong Wind	39 kts.	0	0	\$1,000	\$0
<i>County</i>	7/30/2006	Strong Wind	38 kts.	0	0	\$5,000	\$0
<i>Brooklyn</i>	8/15/2006	TSTM Wind	53 kts.	0	0	\$30,000	\$0
<i>McLaurin</i>	10/17/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Brooklyn</i>	10/27/2006	TSTM Wind	53 kts.	0	0	\$20,000	\$0
<i>McLaurin</i>	11/15/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>County</i>	6/24/2007	TSTM Wind	43 kts.	0	0	\$100	\$0
<i>McLaurin</i>	8/31/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Rawls Springs</i>	10/18/2007	TSTM Wind	50 kts.	0	0	\$12,000	\$0
<i>County</i>	12/15/2007	Strong Wind	39 kts.	0	0	\$25,000	\$0
<i>Dixie Pine</i>	1/10/2008	TSTM Wind	70 kts.	0	0	\$0	\$0
<i>County</i>	1/29/2008	Strong Wind	39 kts.	0	0	\$50,000	\$0
<i>Riverside</i>	1/31/2008	TSTM Wind	53 kts.	0	0	\$60,000	\$0
<i>Carnes</i>	2/12/2008	TSTM Wind	60 kts.	0	0	\$0	\$0
<i>McLaurin</i>	3/3/2008	TSTM Wind	66 kts.	0	0	\$5,000	\$0
<i>Carnes</i>	3/3/2008	TSTM Wind	58 kts.	0	0	\$10,000	\$0
<i>McCullum</i>	4/18/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Ragland</i>	4/18/2008	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Bonhomie</i>	5/3/2008	TSTM Wind	68 kts.	0	0	\$30,000	\$0
<i>McLaurin</i>	6/20/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>McLaurin</i>	6/21/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Bonhomie</i>	6/25/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>McLaurin</i>	6/28/2008	TSTM Wind	55 kts.	0	0	\$2,000	\$0

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<i>Dixie Pine</i>	7/29/2008	TSTM Wind	61 kts.	0	0	\$75,000	\$0
<i>Glendale</i>	8/2/2008	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Macedonia</i>	3/27/2009	TSTM Wind	61 kts.	0	0	\$0	\$0
<i>Rawls Springs</i>	4/2/2009	TSTM Wind	53 kts.	0	0	\$5,000	\$0
<i>Glendale</i>	4/12/2009	TSTM Wind	60 kts.	0	0	\$10,000	\$0
<i>Rawls Springs</i>	5/3/2009	TSTM Wind	53 kts.	0	0	\$3,000	\$0
<i>Macedonia</i>	5/4/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>McCallum</i>	7/4/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Brooklyn</i>	8/1/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Glendale</i>	1/29/2010	TSTM Wind	55 kts.	0	0	\$35,000	\$0
<i>County</i>	3/1/2010	TSTM Wind	36 kts.	0	0	\$1,000	\$0
<i>Canes</i>	4/24/2010	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Brooklyn</i>	6/15/2010	TSTM Wind	43 kts.	0	0	\$8,000	\$0
<i>Dixie Pine</i>	6/15/2010	TSTM Wind	55 kts.	0	0	\$3,000	\$0
<i>Brooklyn</i>	8/15/2010	TSTM Wind	53 kts.	0	0	\$10,000	\$0
<i>Rawls Springs</i>	8/15/2010	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>County</i>	8/22/2010	Strong Wind	39 kts.	0	0	\$1,000	\$0
<i>Eatonville</i>	4/4/2011	TSTM Wind	60 kts.	0	0	\$200,000	\$0
<i>Macedonia</i>	5/13/2011	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Palmers Crossing</i>	6/7/2011	TSTM Wind	50 kts.	0	0	\$75,000	\$0
<i>Brooklyn</i>	6/8/2011	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Maxie</i>	6/10/2011	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Riverside</i>	6/13/2011	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Bonhomie</i>	6/21/2011	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Brooklyn</i>	7/4/2011	TSTM Wind	39 kts.	0	0	\$500	\$0
<i>Rock Hill</i>	8/24/2011	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>County</i>	9/4/2011	Strong Wind	35 kts.	0	0	\$3,000	\$0
<i>County</i>	9/5/2011	Strong Wind	39 kts.	0	0	\$4,000	\$0
<i>Macedonia</i>	4/2/2012	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Eatonville</i>	7/18/2012	TSTM Wind	43 kts.	0	0	\$100	\$0
<i>Eatonville</i>	8/6/2012	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Epps</i>	8/6/2012	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Bonhomie</i>	8/9/2012	TSTM Wind	56 kts.	0	0	\$20,000	\$0
<i>Macedonia</i>	9/4/2012	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Macedonia</i>	4/11/2012	TSTM Wind	60 kts.	0	0	\$100,000	\$0
<i>Dixie Pine</i>	8/13/2013	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>County</i>	2/20/2014	Strong Wind	35 kts.	1	0	\$50,000	\$0
<i>Dixie Pine</i>	3/28/2014	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>McLaurin</i>	6/24/2014	TSTM Wind	52 kts.	0	0	\$3,000	\$0
<i>Rock Hill</i>	11/16/2014	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>Rock Hill</i>	4/15/2015	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Bonhomie</i>	7/5/2015	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Carnes</i>	8/8/2015	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Rock Hill & McLaurin</i>	3/17/2016	TSTM Wind	52 kts.	0	0	\$25,000	\$0
<i>Carnes</i>	3/17/2016	TSTM Wind	50 kts.	0	0	\$6,000	\$0
<i>McCallum</i>	5/19/2016	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Riverside</i>	6/17/2016	TSTM Wind	50 kts.	0	0	\$5,000	\$0

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Rock Hill	6/17/2016	TSTM Wind	55 kts.	0	0	\$20,000	\$0
Glendale	9/25/2016	TSTM Wind	50 kts.	0	0	\$5,000	\$0
County	11/28/2016	Strong Wind	39 kts.	0	0	\$5,000	\$0
Epps & Ragland	1/2/2017	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Maxie	1/2/2017	TSTM Wind	55 kts.	0	0	\$40,000	\$0
Bonhomie	3/30/2017	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Maybank	4/30/2017	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Glendale	5/21/2017	TSTM Wind	50 kts.	0	0	\$15,000	\$0
County	6/16/2017	TSTM Wind	55 kts.	0	0	\$23,000	\$0
County	6/22/2017	TSTM Wind	39 kts.	0	1	\$11,000	\$0
Maxie	7/7/2017	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Macedonia	9/19/2017	TSTM Wind	48 kts.	0	0	\$2,000	\$0
Bonhomie	4/14/2018	TSTM Wind	56 kts.	0	0	\$30,000	\$0
Macedonia	4/14/2018	TSTM Wind	52 kts.	0	0	\$15,000	\$0
Glendale	7/19/2018	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Rawls Springs & Bonhomie	11/1/2018	TSTM Wind	50 kts.	0	0	\$13,000	\$0
Epps	11/1/2018	TSTM Wind	52 kts.	0	0	\$8,000	\$0
McLaurin	4/13/2019	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Bonhomie	4/18/2019	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Rock Hill	5/9/2019	TSTM Wind	50 kts.	0	0	\$2,000	\$0
McLaurin & McCallum	6/25/2019	TSTM Wind	50 kts.	0	0	\$20,000	\$0
Macedonia	7/14/2019	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Bonhomie & Riverside	1/11/2020	TSTM Wind	52 kts.	0	0	\$20,000	\$0
McLaurin	4/19/2020	TSTM Wind	60 kts.	0	0	\$20,000	\$0
Palmers Crossing	4/19/2020	TSTM Wind	50 kts.	0	0	\$17,000	\$0
Riverside	5/24/2020	TSTM Wind	53 kts.	0	0	\$35,000	\$0
Mammoth Springs	5/24/2020	TSTM Wind	50 kts.	0	0	\$2,000	\$0
County	8/16/2020	TSTM Wind	50 kts.	0	0	\$11,000	\$0
McLaurin	3/17/2021	TSTM Wind	55 kts.	0	0	\$7,000	\$0
Rock Hill	4/10/2021	TSTM Wind	52 kts.	0	0	\$8,000	\$0
Dragon	4/23/2021	TSTM Wind	48 kts.	0	0	\$10,000	\$0
Carnes	4/24/2021	TSTM Wind	50 kts.	0	1	\$4,000	\$0
Eatonville	6/13/2021	TSTM Wind	60 kts.	0	0	\$50,000	\$0
Macedonia	2/3/2022	TSTM Wind	39 kts.	0	0	\$20,000	\$0
Ragland	2/3/2022	TSTM Wind	50 kts.	0	0	\$8,000	\$0
County	3/30/2022	Strong Wind	38 kts.	0	0	\$10,000	\$0
McCallum	3/30/2022	TSTM Wind	50 kts.	0	0	\$0	\$0
Macedonia	4/13/2022	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Rawls Springs	4/17/2022	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Brooklyn	4/17/2022	TSTM Wind	55 kts.	0	0	\$3,000	\$0
Dixie Pine	11/30/2022	TSTM Wind	60 kts.	0	0	\$25,000	\$0
Maybank	5/5/2023	TSTM Wind	60 kts.	0	0	\$20,000	\$0
Riverside	5/5/2023	TSTM Wind	63 kts.	0	0	\$100,000	\$0
Riverside	5/5/2023	TSTM Wind	52 kts.	0	0	\$100,000	\$0
Brooklyn	6/12/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Maybank	6/14/2023	TSTM Wind	75 kts.	0	0	\$75,000	\$0
Bonhomie	6/14/2023	TSTM Wind	55 kts.	0	0	\$1,000	\$0

Dragon & Bonhomie	6/16/2023	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Glendale	7/12/2023	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Rawls Springs	1/9/2024	TSTM Wind	45 kts.	0	0	\$15,000	\$0
Rock Hill & Brooklyn	1/25/2024	TSTM Wind	55 kts.	0	0	\$4,000	\$0
Brooklyn & Carnes	5/10/2024	TSTM Wind	61 kts.	0	0	\$6,000	\$0
Maybank	5/13/2024	TSTM Wind	60 kts.	0	0	\$6,000	\$0
Dragon	5/13/2024	TSTM Wind	78 kts.	0	0	\$260,000	\$0
Rawlings Springs	5/13/2024	TSTM Wind	55 kts.	0	0	\$9,000	\$0
Macedonia	5/13/2024	TSTM Wind	52 kts.	0	1	\$50,000	\$0
Carnes	6/4/2024	TSTM Wind	52 kts.	0	0	\$20,000	\$0
Dragon	8/17/2024	TSTM Wind	55 kts.	0	0	\$10,000	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 122 recorded hailstorm events have affected Forrest County since 2000. **Table B.18** is a summary of the hail events in Forrest County. **Table B.19** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$1.6 million in property damages. Hail ranged in diameter from 0.75 inches to 2.5 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value. However, NCEI noted minimal monetary damages for this planning period.

Lightning

According to the National Centers for Environmental Information, there have been 25 recorded lightning events in Forrest County since 2000. These events resulted in over \$1.2 million in damages as listed in summary **Table B.18**. However, it is likely that more lightning events have in fact impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported. Detailed information on historical lightning events can be found in **Table B.19**.

TABLE B.18: SUMMARY OF HAIL AND LIGHTNING OCCURRENCES IN FORREST COUNTY (2000-2024)

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
Hattiesburg	44	0	0	\$808,000	\$0
Petal	24	1	0	\$436,000	\$0
Unincorporated Area	79	0	2	\$1,446,000	\$0
County Total:	147	1	2	\$2,890,000	\$1,000

TABLE B.19: HISTORICAL HAIL AND LIGHTNING OCCURRENCES IN FORREST COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Hattiesburg							
Hattiesburg	4/23/2000	Hail	1 in.	0	0	\$0	\$0
Hattiesburg	7/22/2000	Hail	1 in.	0	0	\$3,000	\$0
Hattiesburg	8/25/2000	Hail	0.75 in.	0	0	\$0	\$0
Hattiesburg	8/30/2000	Hail	0.75 in.	0	0	\$0	\$0

<i>Hattiesburg</i>	8/31/2000	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	8/31/2000	Hail	1.75 In.	0	0	\$15,000	\$0
<i>Hattiesburg</i>	9/5/2000	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	5/2/2001	Hail	1.75 In.	0	0	\$8,000	\$0
<i>Hattiesburg</i>	5/2/2001	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	3/12/2002	Hail	0.88 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	12/24/2002	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	3/6/2003	Hail	0.88 In.	0	0	\$1,000	\$0
<i>Hattiesburg</i>	3/6/2003	Hail	1 In.	0	0	\$5,000	\$0
<i>Hattiesburg</i>	4/25/2003	Hail	1 In.	0	0	\$1,000	\$0
<i>Hattiesburg</i>	4/25/2003	Hail	1.75 In.	0	0	\$10,000	\$0
<i>Hattiesburg</i>	4/25/2003	Hail	2.50 In.	0	0	\$300,000	\$0
<i>Hattiesburg</i>	4/25/2003	Hail	0.75 In.	0	0	\$2,000	\$0
<i>Hattiesburg</i>	8/20/2003	Hail	0.88 In.	0	0	\$1,000	\$0
<i>Hattiesburg</i>	5/11/2004	Hail	1 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	3/22/2005	Hail	0.88 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	4/1/2005	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	4/6/2005	Hail	0.88 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	4/11/2005	Hail	0.88 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	4/22/2005	Hail	1.75 In.	0	0	\$80,000	\$0
<i>Hattiesburg</i>	4/30/2005	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	5/29/2005	Hail	1.75 In.	0	0	\$100,000	\$0
<i>Hattiesburg</i>	7/21/2005	Lightning	--	0	0	\$200,000	\$0
<i>Hattiesburg</i>	5/24/2006	Hail	0.88 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	6/19/2007	Lightning	--	0	0	\$10,000	\$0
<i>Hattiesburg</i>	7/19/2006	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	3/1/2007	Hail	0.75 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	5/16/2009	Lightning	--	0	0	\$2,000	\$0
<i>Hattiesburg</i>	12/14/2009	Lightning	--	0	0	\$10,000	\$0
<i>Hattiesburg</i>	3/1/2010	Hail	0.88 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	7/4/2011	Hail	1.25 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	7/25/2011	Lightning	--	0	0	\$30,000	\$0
<i>Hattiesburg</i>	3/18/2013	Hail	1 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	4/30/2017	Hail	1.75 In.	0	0	\$20,000	\$0
<i>Hattiesburg</i>	4/19/2020	Hail	1 In.	0	0	\$0	\$0
<i>Hattiesburg</i>	5/24/2020	Hail	1 In.	0	0	\$0	\$0
<i>Hattiesburg ARPT</i>	6/13/2021	Lightning	--	0	0	\$10,000	\$0
<i>Hattiesburg</i>	6/18/2022	Hail	0.88 In.	0	0	\$0	\$0
City of Petal							
<i>Petal</i>	4/26/2000	Hail	0.88 In.	0	0	\$0	\$0
<i>Petal</i>	7/20/2000	Hail	1 In.	0	0	\$10,000	\$0
<i>Petal</i>	7/20/2000	Lightning	--	1	0	\$0	\$0
<i>Petal</i>	8/10/2000	Hail	0.88 In.	0	0	\$0	\$0
<i>Petal</i>	8/31/2000	Hail	0.88 In.	0	0	\$0	\$0
<i>Petal</i>	3/1/2001	Hail	0.75 In.	0	0	\$0	\$0

<i>Petal</i>	3/12/2002	Hail	0.88 In.	0	0	\$0	\$0
<i>Petal</i>	3/7/2003	Hail	0.75 In.	0	0	\$1,000	\$0
<i>Petal</i>	7/21/2005	Lightning	--	0	0	\$50,000	\$0
<i>Petal</i>	4/21/2006	Hail	0.88 In.	0	0	\$0	\$0
<i>Petal</i>	5/8/2006	Hail	1.25 In.	0	0	\$10,000	\$0
<i>Petal</i>	2/13/2007	Hail	0.88 In.	0	0	\$0	\$0
<i>Petal</i>	7/29/2008	Hail	1 In.	0	0	\$0	\$0
<i>Petal</i>	2/22/2010	Hail	1 In.	0	0	\$0	\$0
<i>Petal</i>	8/3/2010	Lightning	--	0	0	\$25,000	\$0
<i>Petal</i>	3/8/2011	Lightning	--	0	0	\$15,000	\$0
<i>Petal</i>	4/2/2012	Hail	1 In.	0	0	\$0	\$0
<i>Petal</i>	6/29/2013	Hail	1 In.	0	0	\$0	\$0
<i>Petal</i>	8/20/2015	Lightning	--	0	0	\$75,000	\$0
<i>Petal</i>	9/11/2016	Hail	0.75 In.	0	0	\$0	\$0
<i>Petal</i>	4/30/2017	Lightning	--	0	0	\$150,000	\$0
<i>Petal</i>	7/6/2018	Lightning	--	0	0	\$100,000	\$0
<i>Petal</i>	3/18/2022	Hail	1 In.	0	0	\$0	\$0
<i>Petal</i>	5/21/2022	Hail	1 In.	0	0	\$0	\$0
Unincorporated Area in Forrest County							
<i>Brooklyn</i>	7/27/2000	Hail	1.75 In.	0	0	\$5,000	\$0
<i>McLaurin</i>	7/31/2000	Hail	1 In.	0	0	\$15,000	\$0
<i>Glendale</i>	8/26/2000	Hail	0.88 In.	0	0	\$0	\$0
<i>Carnes</i>	8/30/2000	Hail	1 In.	0	0	\$6,000	\$0
<i>McCallum</i>	3/12/2002	Hail	0.88 In.	0	0	\$0	\$0
<i>Brooklyn</i>	3/12/2002	Hail	0.75 In.	0	0	\$0	\$0
<i>Carnes</i>	7/7/2002	Hail	0.75 In.	0	0	\$0	\$0
<i>Bonhomie</i>	12/23/2002	Hail	0.88 In.	0	0	\$0	\$0
<i>McLaurin</i>	12/23/2002	Hail	1 In.	0	0	\$0	\$0
<i>McCallum</i>	3/6/2003	Hail	0.88 In.	0	0	\$1,000	\$0
<i>McCallum</i>	3/6/2003	Hail	0.75 In.	0	0	\$1,000	\$0
<i>McLaurin</i>	4/25/2003	Hail	1 In.	0	0	\$1,000	\$0
<i>McLaurin</i>	5/3/2003	Hail	1 In.	0	0	\$1,000	\$0
<i>McLaurin</i>	2/23/2004	Hail	0.88 In.	0	0	\$1,000	\$0
<i>Carnes</i>	3/30/2005	Hail	1 In.	0	0	\$0	\$0
<i>Rock Hill</i>	3/31/2005	Hail	1.75 In.	0	0	\$15,000	\$0
<i>McCullum</i>	4/1/2005	Hail	0.75 In.	0	0	\$0	\$0
<i>Carnes</i>	4/1/2005	Lightning	--	0	0	\$150,000	\$0
<i>Rock Hill</i>	4/6/2005	Hail	1 In.	0	0	\$0	\$0
<i>Rawls Springs</i>	5/8/2006	Hail	1.75 In.	0	0	\$50,000	\$0
<i>Brooklyn</i>	5/24/2006	Hail	0.75 In.	0	0	\$0	\$0
<i>Carnes</i>	7/19/2006	Hail	0.88 In.	0	0	\$0	\$0
<i>Bonhomie</i>	1/10/2008	Hail	1.75 In.	0	0	\$100,000	\$0
<i>McCallum</i>	2/12/2008	Hail	1 In.	0	0	\$0	\$0
<i>Carnes</i>	2/12/2008	Hail	0.75 In.	0	0	\$0	\$0
<i>Rock Hill</i>	2/17/2008	Hail	0.75 In.	0	0	\$0	\$0
<i>Eatonville</i>	5/26/2008	Lightning	--	0	0	\$10,000	\$0

McLaurin	6/9/2008	Hail	0.75 In.	0	0	\$0	\$0
McLaurin	6/9/2008	Lightning	--	0	0	\$15,000	\$0
Palmers Crossing	6/9/2008	Lightning	--	0	0	\$250,000	\$0
Brooklyn	6/14/2008	Hail	0.88 In.	0	0	\$0	\$0
McLaurin	6/20/2008	Hail	0.75 In.	0	0	\$0	\$0
Carnes	6/20/2008	Hail	0.75 In.	0	0	\$0	\$0
Maxie	6/25/2008	Hail	0.75 In.	0	0	\$0	\$0
Rawls Springs	1/3/2009	Hail	0.75 In.	0	0	\$0	\$0
Bonhomie	3/27/2009	Hail	1.75 In.	0	0	\$3,000	\$0
Rock Hill	3/31/2009	Hail	1.75 In.	0	0	\$20,000	\$0
Rawls Springs	4/13/2009	Hail	1 In.	0	0	\$0	\$0
Carnes	5/12/2009	Hail	0.75 In.	0	0	\$0	\$0
Brooklyn	5/14/2009	Hail	0.88 In.	0	0	\$0	\$0
Carnes	7/16/2009	Lightning	--	0	1	\$0	\$0
Bonhomie	7/30/2009	Hail	0.88 In.	0	0	\$0	\$0
Brooklyn	8/4/2009	Hail	0.88 In.	0	0	\$0	\$0
Mammoth Springs	2/21/2010	Hail	1 In.	0	0	\$0	\$0
Rock Hill	4/24/2010	Hail	1.50 In.	0	0	\$0	\$0
Bonhomie	8/4/2010	Lightning	--	0	0	\$10,000	\$0
Rock Hill	3/8/2011	Hail	1 In.	0	0	\$0	\$0
McLaurin	3/8/2011	Hail	0.75 In.	0	0	\$0	\$0
Brooklyn	4/15/2011	Hail	1 In.	0	0	\$0	\$0
Rock Hill	5/26/2011	Hail	2 In.	0	0	\$50,000	\$0
McLaurin	5/26/2011	Hail	1 In.	0	0	\$20,000	\$0
Brooklyn	6/6/2011	Hail	1 In.	0	0	\$15,000	\$0
Brooklyn	6/6/2011	Hail	0.75 In.	0	0	\$5,000	\$0
McLaurin	6/7/2011	Hail	1.75 In.	0	0	\$30,000	\$0
Brooklyn	6/8/2011	Hail	1 In.	0	0	\$20,000	\$0
Ragland	6/8/2011	Lightning	--	0	0	\$3,000	\$0
Brooklyn	6/10/2011	Hail	0.88 In.	0	0	\$10,000	\$0
Riverside	9/28/2011	Hail	0.88 In.	0	0	\$0	\$0
Epps	2/24/2012	Hail	1 In.	0	0	\$0	\$0
Rock Hill	4/15/2015	Hail	1.75 In.	0	0	\$6,000	\$0
McLaurin	4/15/2015	Hail	1 In.	0	0	\$0	\$0
McLaurin	3/17/2016	Hail	1 In.	0	0	\$0	\$0
McCallum	6/17/2016	Hail	1.75 In.	0	0	\$3,000	\$0
Macedonia	8/5/2016	Lightning	--	0	0	\$30,000	\$0
Rock Hill	1/21/2017	Hail	1 In.	0	0	\$0	\$0
McLaurin	1/21/2017	Hail	1 In.	0	0	\$0	\$0
Macedonia	7/12/2017	Lightning	--	0	1	\$30,000	\$0
Dragon	5/11/2019	Lightning	--	0	0	\$50,000	\$0
Ragland	9/9/2019	Lightning	--	0	0	\$2,000	\$0
Dragon	9/9/2019	Lightning	--	0	0	\$3,000	\$1,000
Bonhomie	4/19/2020	Hail	1 In.	0	0	\$0	\$0
Mammoth Springs	4/29/2020	Hail	0.88 In.	0	0	\$0	\$0
Bonhomie	4/29/2020	Hail	0.88 In.	0	0	\$0	\$0
Carnes	5/27/2020	Hail	1.50 In.	0	0	\$5,000	\$0

Glendale	4/15/2022	Hail	1 in.	0	0	\$500,000	\$0
Macedonia	4/17/2022	Hail	1 in.	0	0	\$10,000	\$0
Mammoth Springs	6/10/2022	Hail	1 in.	0	0	\$0	\$0
Bonhomie	5/11/2023	Hail	0.88 in.	0	0	\$0	\$0
Brooklyn	1/8/2024	Hail	1.75 in.	0	0	\$200,000	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Forrest County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there was not a high number of historical lightning events reported in Forrest County via NCEI data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), Forrest County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year. Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county in crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

B.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Forrest County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that Forrest County is uniformly exposed to this hazard.

HISTORICAL OCCURRENCES

Tornadoes resulted in eight disaster declarations in Forrest County in 1980, 1983, 1990, 1992, 2001, 2013, 2017, and 2018. According to the National Centers for Environmental Information, there have been a total of 27 recorded tornado events in Forrest County since 2000 (**Table B.20**), resulting in over \$44 million in property damages. In addition, 134 injuries and 4 deaths were reported. The magnitude of these tornadoes ranges from F0 to EF3 in intensity, although an F5 event is possible. Detailed information on historic tornado events can be found in **Table B.21**.

TABLE B.20: SUMMARY OF TORNADO OCCURRENCES IN FORREST COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
Hattiesburg	4	0	68	\$31,127,000	\$0
Petal	2	0	0	\$400,000	\$0

Unincorporated Area	21	4	71	\$12,184,500	\$549,500
Forrest County Total:	27	4	134	\$43,711,500	\$549,500

Source: NCED/NOAA

TABLE B.21 HISTORICAL TORNADO IMPACTS IN FORREST COUNTY

Location	Date	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
The City of Hattiesburg						
<i>Hattiesburg</i>	3/12/2001	F1	0	5	\$6,000,000	\$0
<i>Hattiesburg</i>	1/7/2005	F1	0	0	\$125,000	\$0
<i>Hattiesburg</i>	8/29/2005	F1	0	0	\$2,000	\$0
<i>Hattiesburg</i>	2/10/2023	EF3	0	63	\$25,000,000	\$0
The Town of Petal						
<i>Petal</i>	4/14/2007	EF1	0	0	\$200,000	\$0
<i>Petal</i>	8/30/2017	EF1	0	0	\$200,000	\$0
Unincorporated Area in Forrest County						
<i>Rawls Springs</i>	11/15/2006	F1	0	0	\$2,000	\$0
<i>Mammoth Springs</i>	10/17/2007	EF1	0	1	\$100,000	\$0
<i>McLaurin</i>	3/3/2008	EF1	0	14	\$1,500,000	\$0
<i>Rock Hill</i>	5/15/2008	EF1	0	0	\$700,000	\$500,000
<i>McLaurin</i>	5/15/2008	EF1	0	0	\$80,000	\$0
<i>Maxie</i>	9/1/2008	EF0	0	0	\$2,000	\$0
<i>McLaurin</i>	9/4/2011	EF0	0	0	\$500	\$0
<i>Bonhomie</i>	3/2/2012	EF1	0	0	\$15,000	\$0
<i>Dragon</i>	3/21/2012	EF0	0	0	\$20,000	\$0
<i>Fruitland Park</i>	12/25/2012	EF2	0	4	\$200,000	\$0
<i>Bonhomie</i>	10/31/2015	EF0	0	0	\$17,000	\$0
<i>Carnes</i>	2/23/2016	EF0	0	0	\$15,000	\$0
<i>Rock Hill</i>	1/2/2017	EF1	0	0	\$30,000	\$0
<i>Bonhomie</i>	1/21/2017	EF3	4	56	\$9,000,000	\$49,500
<i>Macedonia</i>	7/14/2019	EF0	0	0	\$3,000	\$0
<i>Bonhomie</i>	4/19/2020	EF1	0	1	\$100,000	\$0
<i>Bonhomie</i>	3/30/2022	EF0	0	0	\$10,000	\$0
<i>Carnes</i>	3/30/2022	EF2	0	0	\$250,000	\$0
<i>Macedonia</i>	12/14/2022	EF0	0	0	\$40,000	\$0
<i>Macedonia</i>	12/14/2022	EF2	0	0	\$100,000	\$0
<i>Carnes</i>	12/14/2022	EF1	0	0	\$40,000	\$0

Source: NCED/NOAA

Anecdotes are available from NCEI for the major storms that have impacted that area as found below:

March 12, 2001—This was an F1 tornado from a supercell thunderstorm that went through several counties. In Forrest County, the tornado tracked through populated areas of Hattiesburg and Petal. The tornado caused major damage to 112 houses, one mobile home, eight businesses, and six vehicles. Additionally, the tornado caused minor damage to 223 houses,

four mobile homes, and 21 businesses. Despite the widespread damage across three counties, no serious injuries were reported in the storms.

March 3, 2008—his tornado touched down at Camp Shelby and snapped or uprooted numerous trees and downed several power lines along the short path. Twelve buildings, mostly barracks, were damaged. Several buildings had the roofs severely damaged with one roof nearly completely torn off. Several walls of the barrack buildings collapsed where the roof support was lost. A hummer was turned over and windows were blown out of several other vehicles. Maximum wind speed was 110 mph. This caused 1.5 million in damages and caused 14 injuries.

May 15, 2008—This tornado began on the east side of Purvis, here it downed some limbs and small trees. The tornado intensified and widened as it approached and crossed Interstate 59 near Black Creek. Numerous trees and large limbs were snapped along the path as it moved through the area between the interstate and Highway 49. Additionally, a couple homes and outbuildings were damaged by limbs or trees falling on them. The tornado intensified again and narrowed as it approached Highway 49 and the south gate of Camp Shelby. A number of large trees were downed along the highway, and from there to the actual gate of Camp Shelby. One large tree fell on a mobile home on the east side of Highway 49, destroying it. Shingles were pulled off a couple commercial buildings along the highway as well and 2 power poles were snapped. This area was where the tornado reached its maximum intensity. As the tornado moved across Camp Shelby, it remained narrow, but not as intense, with winds likely in the 70 to 80 mph range. The tornado downed numerous large limbs and sporadic trees as it moved across the base. One large tree fell on base quarters home, causing serious damage to it, and another tree fell on a vehicle, destroying it. Some other minor roof damage was noted. The tornado continued causing sporadic tree damage as it crossed Highway 98 near the Perry County line where it dissipated. Maximum winds were around 105 mph. The total path length across Lamar and Forrest Counties was 15 miles.

February 10, 2013—The tornado started along Highway 589, where some limbs and small trees were blown down. It became intense rather quickly, producing significant damage as it moved through the West Lake Serene area. The tornado reached its maximum intensity in the area around and just southwest of Oak Grove High School where maximum winds were estimated at 170 mph, which is EF-4 strength. There was a brick home in a subdivision southwest of the high school, just west of old Highway 11, that was completely leveled with all interior and exterior walls down, and a fair amount of large debris was blown downstream. Additionally, very high-end timber damage occurred in this location with a number of trees showing debarking and denuding. Several other homes in this subdivision also sustained EF-2 to EF-3 damage.

As the tornado crossed old Highway 11, it produced extensive damage on the campus of Oak Grove High School. The field house adjoining the football stadium was destroyed, the baseball stadium and a large metal building adjoining the stadium were essentially destroyed, and several large steel/concrete light standards were snapped at both the baseball and football stadiums. A vehicle was thrown from the parking lot adjoining the baseball stadium, up a small hill and was deposited near the pitching mound in the middle of the baseball field. The main building of the high school also suffered roof damage.

The tornado then moved northeast into the heavily populated areas of Oak Grove and West Hattiesburg, including areas along Lincoln Road Extension, Weathersby Road, Oak Grove Road, and the area just south of Highway 98 along Clark, Lamar and Foxgate Avenues. Numerous homes were destroyed or suffered major damage, and a few homes showed evidence of high-end EF-3 damage. Dozens of power poles were snapped, and extensive tree damage occurred. Video evidence and ground survey damage appeared to indicate that the tornado was multi-vortex in nature during its Lamar County portion.

Just before crossing Interstate 59, it caused significant roof damage to a number of apartment buildings just west of the interstate. In total in Lamar County, emergency management indicated that 51 homes were destroyed and 170 suffered major damage.

The tornado then moved into Forrest County just to the south of Hardy Street damaging numerous homes with the damage in the EF-2 and EF-3 category. It then crossed Hardy Street impacting the southeast corner of the University of Southern Mississippi campus. Numerous buildings were damaged in this area including several campus buildings and a large church.

Numerous power poles were blown down in this area and several metal traffic lights were bent or torn off their bases. Damage in this area was also EF-2 and EF-3.

The tornado continued across Highway 49 impacting multiple neighborhoods. Numerous roofs were blown off houses and many trees fell on houses and vehicles. The tornado crossed North Main Street causing significant damage to the Red Cross building, the Girl Scouts building, and bending large metal poles at the Hattiesburg High School athletic fields. The tornado then moved across east 7th Street causing significant damage to several large brick buildings. Damage in the area between north Main Street and east 7th Avenue was in the high-end EF-3 range with maximum winds around 160 mph.

The tornado continued into Petal with the most significant damage occurring to an Ace Hardware store on South Main Street. Numerous homes in the vicinity of the hardware store also had roofs torn off and exterior walls collapsed. This damage was also rated high end EF-3 with maximum winds around 160 mph.

The tornado began to weaken as it crossed the Evelyn Gandy Parkway to the northeast of Petal. Damage in this area was mainly EF-1 and EF-2 and consisted of roof damage and snapped trees. The tornado strengthened one last time as it moved through a neighborhood just off Twin Lakes Road. Numerous well built homes experienced EF-2 damage to the roofs in this neighborhood. The tornado weakened as it approached the Perry County line and dissipated a couple of miles into Perry County. Damage at the end of the track was in the EF-0 to EF-1 range.

In Forrest County, emergency management indicated that 133 homes were destroyed and 207 suffered major damage. There were 63 reported injuries. This is the second violent tornado to impact Lamar and Forrest Counties in recorded history. The other violent tornado was the infamous Purvis tornado on April 24, 1908, that was on the ground for 155 miles and impacted many counties across Mississippi. In total, 143 people were killed by this tornado, including 60 in Lamar County and 4 in Forrest County.

January 21, 2017— his tornado began along Purvis-Oloh Road, about 5 miles west northwest of Purvis. It tracked northeast across portions of Lamar County causing mainly tree damage, uprooting and snapping softwood and hardwood trees. It caused some minor to moderate structural damage as well. The tornado crossed Old Highway 11, continuing to cause mainly tree damage, although at least a few structures were also damaged. The tornado began to gain strength as it reached Slade Road, where some homes received roof damage. As the tornado crossed Sullivan Kilrain Road, additional homes received significant roof and structural damage, especially on Carter Circle and Tatum Camp Road. Comprehensive assessments from Lamar County emergency management officials count 26 homes in the county being destroyed or with major damage and 52 homes receiving minor damage. The tornado continued to gain strength as it crossed into Forrest County. There it struck a subdivision along Nellwood Drive, Lakeland Drive and Crestwood Drive and caused significant damage to many homes. Several homes received significant roof and structural damage. One home sustained significant damage and also was the site of one of the fatalities. As the tornado continued to track northeast, it caused extensive tree damage and powerline damage.

It struck a church along Helveston Road, which suffered damage to the top floor. As the tornado approached William Carey College, it intensified to EF3 strength, causing damage to numerous buildings on campus. The tornado then affected a mobile home park, downing trees and causing damage to mobile homes. Here, two more fatalities occurred. It then caused structural damage to several homes, churches and businesses on James Street and Alcorn Road. Another fatality occurred on Alcorn Road when a tree fell on a home.

The tornado continued to track northeast, crossing the Leaf River and headed into Petal. Here the tornado got very wide and continued to cause EF2 type damage to businesses along Main Street and into the neighborhoods on the southern side of the city. Extensive tree damage occurred, and countless homes had minor to major roof damage in the neighborhood south of Hillcrest Loop. As the tornado reached Sun Circle, it intensified to EF3 strength again and caused significant damage to a few homes as well as moderate damage to many homes in the neighborhood.

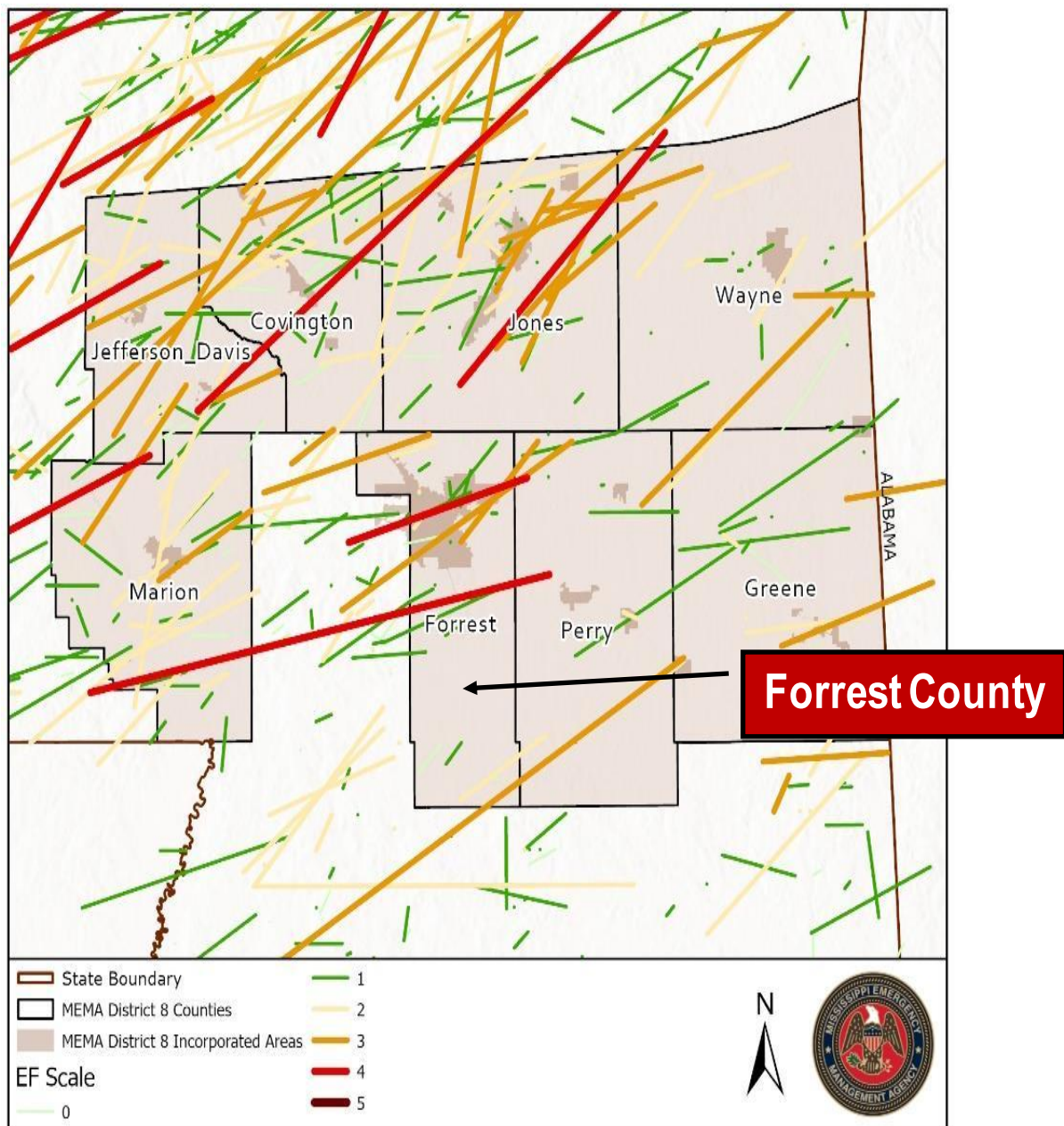
Beyond the subdivision along Sun Circle, the tornado caused tree damage again before reaching Evelyn Gandy Parkway. It caused structural damage to an AT&T store by lifting the roof of the strip mall. It caused additional roof damage to several homes and a church along the Parkway as well as along Springridge Road and Corinth Road. As the tornado tore across Shawnee Trail, it caused impressive tree damage, which included snapping and uprooting hardwood and softwood trees. As the tornado tracked just south of HDR Lane, it took down two metal electrical transmission lines. The tornado then destroyed a

house along Macedonia Road, as well as causing additional roof to other homes and taking down numerous trees. Additional impressive tree damage occurred along Old Richton Road and Tyroby Lane.

The tornado continued to down trees as it tracked across Old Richton Road into Perry County. Comprehensive assessments from Forrest County emergency management officials count 499 homes in the county being destroyed or with major damage and 632 homes receiving minor damage.

The tornado path length in just Lamar and Forrest counties was 24.2 miles, although the entire path of the tornado in total was 31.3 miles. Along the entire tornado path the total number of homes destroyed or receiving major damage is estimated to be 531 with the number of homes having minor damage estimated at 689. Maximum estimated winds were 145 mph. The maximum path width was 900 yards, which occurred in the Petal area of Forrest County. This tornado affected a large number of forested areas. Approximately 1570 forested acres were damaged, with 1453 acres being privately owned. In total, 4320 acres were damaged from this tornado. The total economic impact was \$410,784 in Lamar, Forrest and Perry counties. 777 total acres were damaged in Lamar County, and 400 in Forrest.

FIGURE B.7: HISTORICAL TORNADO TRACKS IN FORREST COUNTY



PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Forrest County. The probability of future tornado occurrences affecting Forrest County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

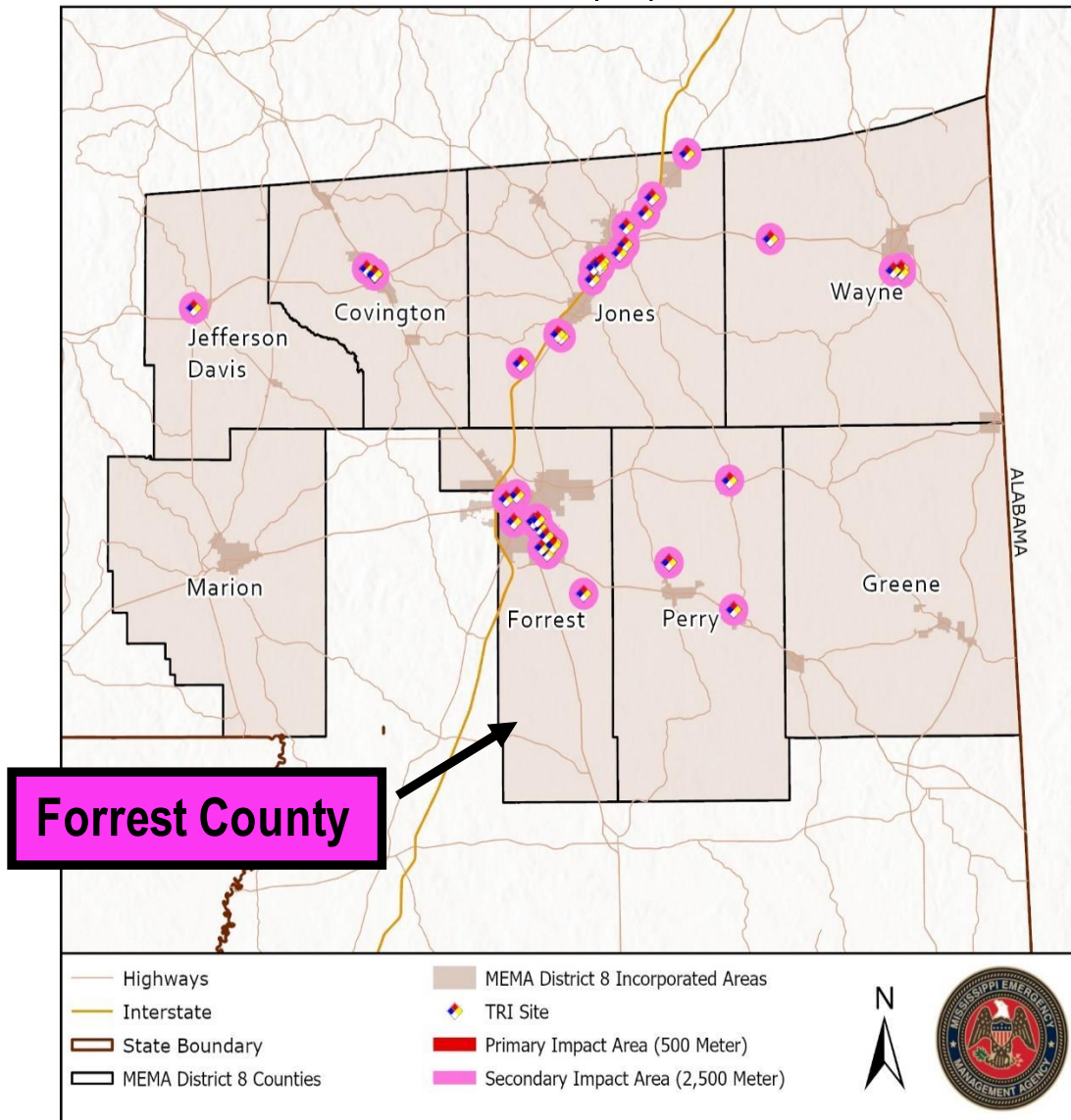
B.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Forrest County has numerous TRI sites as shown in **Figure B.8**.

FIGURE B.8: TOXIC RELEASE INVENTORY (TRI) SITES IN FORREST COUNTY

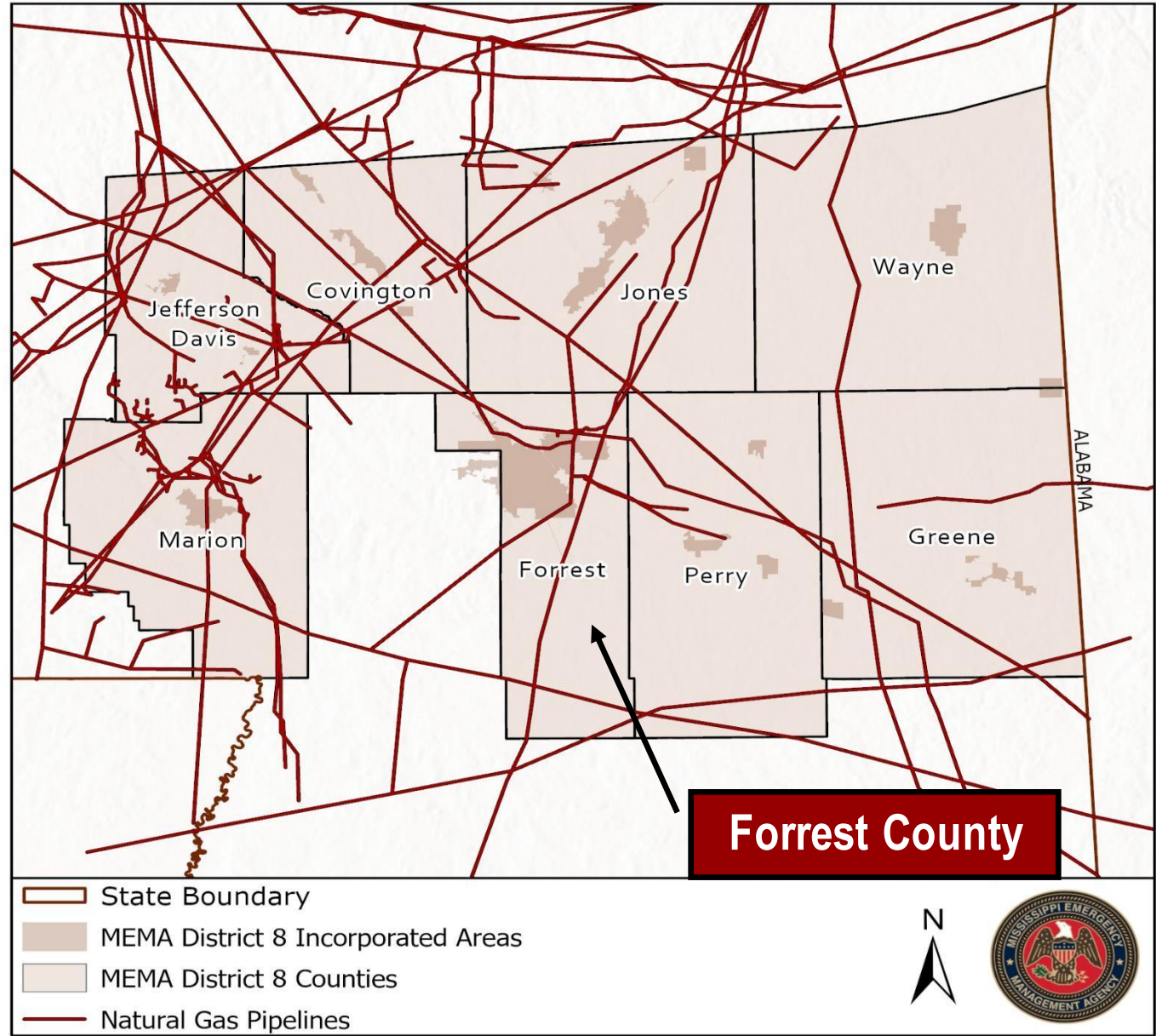


In addition to “fixed” hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

The pipelines in Forrest County are used in the transport of potentially hazardous materials, gas lines, and hazardous liquid lines. As of December 11, 2001, all or portions of three oil and gas fields were located in Forrest County, Mississippi. The 2001 annual production for Forrest County was 7,796 barrels of oil, 81,511 thousand cubic feet of gas, and 26,714 barrels of water, from 11 wells as reported in the Mississippi State Oil and Gas Board's 2001 Annual Report.

FIGURE B.9: PIPELINES IN FORREST COUNTY



Meth Labs

Meth lab incidents have occurred at various times throughout Forrest County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

HISTORICAL OCCURRENCES

Hazardous Materials

There has been a total of one hundred recorded HAZMAT incident in Forrest County since 2003, resulting in \$336,370 in property damages. **Table B.21** presents detailed information on historic HAZMAT incidents in Forrest County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

TABLE B.21: SUMMARY OF HAZMAT INCIDENTS IN FORREST COUNTY

Location	Date	Report Number	Mode	Serious Incident	Facilities/ Injuries	Damages	Quantity Released
The City of Hattiesburg							
Hattiesburg	3/1/2005	I-2005030356	Highway	No	0/0	\$0	2 LGA
Hattiesburg	3/2/2005	I-2005030348	Highway	No	0/0	\$0	0.5 LGA
Hattiesburg	6/15/2005	I-2005060875	Highway	No	0/0	\$0	0.023438 LGA
Hattiesburg	10/4/2005	I-2005100406	Highway	No	0/0	\$0	0.03125 LGA
Hattiesburg	10/4/2005	I-2005100407	Highway	No	0/0	\$0	0.0625 LGA
Hattiesburg	10/4/2005	I-2005100714	Highway	No	0/0	\$0	0.0625 LGA
Hattiesburg	1/12/2006	I-2006010786	Highway	No	0/0	\$0	2 LGA
Hattiesburg	4/7/2006	I-2006040391	Highway	No	0/0	\$0	2 LGA
Hattiesburg	6/6/2006	I-2006061283	Highway	No	0/0	\$0	2 LGA
Hattiesburg	7/12/2006	E-2006070114	Highway	YES	0/0	\$0	421.575 LGA
Hattiesburg	9/18/2006	I-2006090852	Highway	No	0/0	\$0	0.11875 LGA
Hattiesburg	9/28/2006	I-2006101325	Rail	No	0/0	\$600	2 LGA
Hattiesburg	10/4/2006	E-2006070114	Highway	No	0/0	\$0	0.03125 LGA
Hattiesburg	10/12/2006	I-2006110328	Rail	No	0/0	\$0	1 LGA
Hattiesburg	2/8/2007	I-2007020828	Highway	No	0/0	\$0	1 LGA
Hattiesburg	8/9/2007	I-2007080320	Highway	No	0/0	\$0	0.007812 LGA
Hattiesburg	1/4/2008	X-2008010156	Rail	No	0/0	\$750	0.017 LGA
Hattiesburg	1/16/2008	X-2008020062	Rail	No	0/0	\$600	0.01671 LGA
Hattiesburg	3/6/2008	X-2008030156	Rail	No	0/0	\$700	5 SLB
Hattiesburg	4/15/2008	X-1008040311	Rail	No	0/0	\$700	0.01671 GCF
Hattiesburg	6/13/2008	X-2008060200	Rail	No	0/0	\$2015	3 LGA
Hattiesburg	8/19/2008	X-2008080369	Rail	No	0/0	\$800	2 LGA
Hattiesburg	9/29/2008	X-2008100119	Highway	No	0/0	\$0	2 LGA
Hattiesburg	10/6/2008	X-2008100174	Rail	No	0/0	\$5,105	7 LGA
Hattiesburg	10/14/2008	X-2008110123	Rail	No	0/0	\$0	0.125 GCF
Hattiesburg	10/31/2008	E-2008110384	Highway	No	0/0	\$0	0.15625 LGA
Hattiesburg	12/12/2008	X-2008120145	Rail	No	0/0	\$600	0.125 GCF
Hattiesburg	1/8/2009	I-2009020013	Highway	No	0/0	\$0	0.001 LGA
Hattiesburg	1/26/2009	X-200903007	Highway	No	0/0	\$0	3 LGA
Hattiesburg	2/6/2009	X-2009030107	Rail	No	0/0	\$600	0.01671 GCF
Hattiesburg	2/27/2009	E-2009030241	Highway	No	0/0	\$0	0.3125 LGA
Hattiesburg	8/6/2009	E-2009090061	Highway	No	0/0	\$0	0.1875 LGA
Hattiesburg	8/21/2009	E-2009090273	Highway	No	0/0	\$0	0.1875 LGA
Hattiesburg	4/14/2010	E-2010050011	Highway	No	0/0	\$5,200	0.125 LGA
Hattiesburg	7/16/2010	E-2010080266	Highway	No	0/0	\$0	0.5 LGA
Hattiesburg	7/22/2010	E-2010070411	Highway	No	0/0	\$0	0.078 LGA
Hattiesburg	8/2/2010	I-2010080637	Highway	No	0/0	\$0	10 LGA
Hattiesburg	8/25/2010	X-2010090202	Highway	No	0/0	\$0	14.8 LGA
Hattiesburg	9/1/2010	E-2010090033	Highway	No	0/0	\$0	2 LGA
Hattiesburg	10/1/2010	X-2010100194	Highway	No	0/0	\$0	1 LGA

Hattiesburg	11/30/2010	X-2010120130	Rail	No	0/0	\$0	0.01671 GCF
Hattiesburg	6/2/2011	E-2011060039	Highway	No	0/0	\$0	0.23438 LGA
Hattiesburg	6/6/2011	E-2011060589	Highway	No	0/0	\$0	0.125 LGA
Hattiesburg	7/18/2011	I-2011070639	Highway	No	0/0	\$0	0.132085 LGA
Hattiesburg	7/22/2011	X-2011070521	Rail	No	0/0	\$0	2 LGA
Hattiesburg	8/15/2011	X-2001090154	Highway	No	0/0	\$0	1 LGA
Hattiesburg	8/26/2011	X-2011090333	Rail	No	0/0	\$600	0.25 LGA
Hattiesburg	5/19/2012	E-2012050505	Highway	No	0/0	\$0	0.125 LGA
Hattiesburg	6/21/2012	E-2012060537	Highway	No	0/0	\$65,025	2 LGA
Hattiesburg	8/1/2012	X-2012080290	Rail	No	0/0	\$0	0.0625 LGA
Hattiesburg	8/14/2012	X-2012080316	Highway	No	0/0	\$0	0.125 LGA
Hattiesburg	10/29/2012	E-2012100490	Highway	No	0/0	\$0	1 LGA
Hattiesburg	12/4/2012	E-2012120226	Highway	No	0/0	\$0	1 LGA
Hattiesburg	2/26/2013	E-2013020476	Highway	No	0/0	\$0	0.0625 LGA
Hattiesburg	3/7/2013	X-2013040023	Highway	No	0/0	\$0	0.5 LGA
Hattiesburg	4/24/2013	X-2013050099	Rail	No	0/0	\$0	1 LGA
Hattiesburg	4/26/2013	E-2013050165	Highway	No	0/0	\$0	0.25 LGA
Hattiesburg	6/18/2013	E-2013060470	Highway	No	0/0	\$0	0.046875 LGA
Hattiesburg	3/11/2014	I-2014050331	Highway	No	0/0	\$46,500	82 LGA
Hattiesburg	3/14/2014	E-2014030347	Highway	No	0/0	\$0	5 LGA
Hattiesburg	5/13/2014	I-2014060141	Highway	YES	0/0	\$0	540 LGA
Hattiesburg	6/10/2014	E-2014090717	Highway	No	0/0	\$0	1 LGA
Hattiesburg	6/16/2014	E-2014060323	Highway	No	0/0	\$0	0.015625 LGA
Hattiesburg	6/17/2014	E-2014060439	Highway	No	0/0	\$0	0.0625 LGA
Hattiesburg	7/3/2014	E-2014070154	Highway	No	0/0	\$0	0.0625 LGA
Hattiesburg	8/4/2014	E-2014090157	Highway	No	0/0	\$5,000	1.9 LGA
Hattiesburg	10/3/2014	E-2014100212	Highway	No	0/0	\$0	0.75 LGA
Hattiesburg	11/3/2014	E-2014110023	Highway	No	0/0	\$0	16 LGA
Hattiesburg	11/15/2014	E-2014120399	Highway	No	0/0	\$0	15 LGA
Hattiesburg	11/23/2014	E-2014120179	Rail	No	0/0	\$0	0.03125 LGA
Hattiesburg	12/9/2014	E-2014120181	Rail	No	0/0	\$0	0.03125 LGA
Hattiesburg	4/14/2015	E-2015070308	Highway	No	0/0	\$0	4 LGA
Hattiesburg	4/24/2015	E-2015040428	Highway	No	0/0	\$1,200	4 LGA
Hattiesburg	5/4/2015	E-2015050031	Highway	No	0/0	\$0	2.5 LGA
Hattiesburg	7/22/2015	E-2015080439	Highway	No	0/0	\$0	0.023 LGA
Hattiesburg	10/16/2016	E-2016101399	Highway	No	0/0	\$6,500	15 LGA
Hattiesburg	11/10/2016	E2016110283	Highway	No	0/0	\$0	1 LGA
Hattiesburg	3/6/2017	E-2017030277	Highway	No	0/0	\$0	2 LGA
Hattiesburg	4/27/2017	E-2017040543	Highway	No	0/0	\$0	1 LGA
Hattiesburg	6/20/2017	E-2017090334	Highway	No	0/0	\$0	4 LGA
Hattiesburg	7/17/2017	E-2017080179	Rail	No	0/0	\$10,000	5 LGA
Hattiesburg	7/25/2017	E-2017080079	Highway	No	0/0	\$0	3.43 LGA
Hattiesburg	10/25/2017	E-2017100617	Highway	No	0/0	\$0	1 LGA
Hattiesburg	3/27/2018	E-2018040138	Highway	No	0/0	\$0	30 LGA
Hattiesburg	6/15/2018	E-2018080771	Highway	No	0/0	\$0	3 LGA

Hattiesburg	8/18/2018	E-2018090031	Rail	No	0/0	\$0	1 LGA
Hattiesburg	10/3/2018	E-2018120447	Highway	No	0/0	\$0	20 LGA
Hattiesburg	1/26/2019	E-2019020330	Highway	No	0/0	\$6,000	1 LGA
Hattiesburg	2/12/2019	E-2019030369	Highway	No	0/0	\$0	5 LGA
Hattiesburg	6/22/2020	E-2020070173	Highway	No	0/0	\$0	0.25 LGA
Hattiesburg	6/22/2020	E2020070174	Highway	No	0/0	\$0	3 LGA
Hattiesburg	10/5/2020	E-2020100468	Highway	No	0/0	\$0	0.0625 LGA
Hattiesburg	7/20/2021	E-2021080833	Highway	No	0/0	\$5,150	50 LGA
Hattiesburg	8/4/2021	E-2021080579	Highway	No	0/0	\$0	3.75 LGA
Hattiesburg	3/30/2022	I-2022070549	Highway	YES	0/0	\$72,725	200 LGA
Hattiesburg	2/13/2024	E-2024030035	Highway	No	0/0	\$0	3 LGA
Hattiesburg	6/5/2024	E-2024070334	Highway	No	0/0	\$0	0.125 SLB
Hattiesburg	7/11/2024	I-2024080049	Highway	YES	0/0	\$45,000	150 LGA
Hattiesburg	10/14/2024	E-2024100502	Highway	No	0/0	\$0	0.047 LGA
City of Petal							
Petal	4/22/2003	I-2003120943	Highway	YES	0/0	\$55,000	200 LGA
Unincorporated Area in Forrest County							
N/A	--	--	--	--	--	--	--

Source: USDOT PHMSA

Pipelines

There have been one pipeline incidents in Forrest County. The incident occurred in Petal and caused \$55,300 in damage.

Meth Labs

Meth lab incidents have occurred at various times throughout Forrest County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

There are several toxic release inventory sites in Forrest County; however, there is no incident on record. There has only been one roadway or rail incident, it is unlikely that a hazardous material incident may occur in the county (less than one percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Although there are several TRI sites and a very limited record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and narrow roadways.

Pipelines

Although there has only been one pipeline incident, there are miles of gas and hazardous liquid lines in the region. Therefore, it is anticipated that there will be future pipeline incidents in Forrest County, and they are considered possible.

Meth Labs

Meth lab incidents will likely continue to occur throughout Forrest County. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

B.2.14 Cyber Attacks

A cyber-attack is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. A cyberterrorism event can impact one or more of Forrest County's and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The cyberterrorism hazard is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. Targets of cyberterrorism can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in in Forrest County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact for Forrest County. As such, the county will continue to be compelled to respond to cyberterrorisms in the future. The nature of these attacks is projected to evolve in sophistication over time. Forrest County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations.

The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

B.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. Forrest County chose to analyze this hazard given the large number of deaths and economic hardships COVID 19 caused. Also, it is known that viruses can ultimately mutate and reinfect humans multiple times and/or created a new strain of the virus can occur.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be shutdown, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates back to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted to the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused from a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Similar to other pandemics, this pandemic has two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and

those with chronic respiratory, cardiac, neurological, or immunity conditions. Worldwide, it is estimated that 43 million to 89 million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Forrest County had 27,776 cases of COVID and 331 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have underlying health conditions.

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Forrest County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154,pdf/SNSPlan.pdf>

B.2.15 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its “How-to” guidance document titled Understanding Your Risks:

Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table B.22 describes the extent of each natural hazard identified for Forrest County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE B.22: EXTENT OF FORREST COUNTY HAZARDS

HAZARD	DESCRIPTION
Tectonic Hazards	
Earthquake	Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Forrest County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, USGS data shows Forrest County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.
Mass-Movements	
Landslide	As noted above in the landslide profile, there is no extensive history of landslides in Forrest County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout the county. There is also susceptibility throughout the county.
Expansive Soils	As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Forrest County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Forrest County.
Hydraulic Hazards	
Drought	Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Forrest County has received this ranking once over the eighteen-year reporting period.
Floods	Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 11.2 percent of the total land area in Forrest County. Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at the Goines Draw near Petal in 1974. Water reached a discharge of 610 cubic feet per second and the stream gage height was recorded at 9.10 feet.
Dam Failure	Dam Failure extent is defined using the Mississippi Division of Environmental Quality criteria. Seven dams are classified as high hazard.
Meteorological Hazards	
Hurricane and Tropical Storms	Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Forrest County was a Category 3 storm (Hurricane Camille in 1969) which carried tropical force winds of 155 miles per hour upon arrival in the county.
Thunderstorms/ Hail/ Lightning/ Wind	Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Forrest County was last reported on May 15, 2024, at 78 knots (approximately 90 mph). It should be noted that future events may exceed these historical occurrences. Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Forrest County was 2.5 inches (last reported on April 25, 2003). It should be noted that future events may exceed this. According to the Vaisala's flash density map, Forrest County is located in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.
Winter Storms	The extent of winter storms can be measured by the amount of snowfall received (in inches). Official long-term snow records are not kept for Forrest County. However, the greatest snowfall reported in Jackson (northwest of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.
Temperature Extremes/ Heat	A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4 th , 2010. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees.

Wave	Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.
Tornado	Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Forrest County was an F4 (reported on April 18, 1978).
Biological Hazards	
Pandemic	The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life. Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Forrest County had 27,776 cases of COVID and 331 deaths
Other Natural Hazards	
Wildfire	Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by county from 2010-2023. The greatest number of fires to occur in Forrest County in any year was 59 in 2011. The greatest number of acres to burn in the county in a single year occurred in 2011 when 742 acres were burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.
Erosion	The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Forrest County.
Climate Change	The extent Climate change will impact Forrest County is hard to estimate. It could cause more intense, frequent, and/or magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase so will property damage and possible loss of life.
Other Hazards	
Cyber Attack	The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damages depends on the demands of the cyberterrorist.
Hazard Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the county is 200 LGA released on the highway in Petal. It should be noted that larger events are possible. A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled. Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

In order to draw some meaningful planning conclusions on hazard risk for Forrest County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a "Priority Risk Index" (PRI). More information on the PRI and how it was calculated can be found in *Section 5.16.2*.

Table B.23 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating PRI values and making final determinations for the risk assessment.

TABLE B.23: SUMMARY OF PRI RESULTS FOR FORREST COUNTY

HAZARD	Category/Degree of Risk					PRI
	Probability	Impact	Spatial	Warning		

			Extent	Time	Duration	Score
Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/ Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/ High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Possible	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2

B.2.16 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Forrest County, including the PRI results and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table B.24). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of Forrest County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in *Section 6: Vulnerability Assessment* and below in *Section B.3*. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE B.24: CONCLUSIONS ON HAZARD RISK FOR FORREST COUNTY

High Risk	<i>Hurricane and Tropical Storm</i> <i>Thunderstorm/ High Wind</i> <i>Tornado</i> <i>Drought/ Heat Wave</i> <i>Pandemic</i> <i>Lightning</i> <i>Flood</i>
Moderate Risk	<i>Dam Failure</i> <i>Hailstorm</i> <i>Pipeline Incident</i> <i>Hazardous Material</i> <i>Wildfire</i> <i>Winter Weather Event</i> <i>Climate Change</i>
Low Risk	<i>Expansive Soils</i> <i>Erosion</i> <i>Earthquake</i> <i>Landslide</i> <i>Hazardous Material Incident</i> <i>Meth Lab Incident</i> <i>Cyber Terrorism</i>

B.3 FORREST COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Forrest County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact and expected

amount of damages caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in *Section 6: Vulnerability Assessment*.

B.3.1 Asset Inventory

Table B.25 lists the estimated number of improved properties and the total value of improvements for Forrest County and its participating jurisdictions (study area of vulnerability assessment). This data was obtained from HAZUS since digital parcel data was not available in this county.

TABLE B.25: IMPROVED PROPERTY IN FORREST COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Forrest County	28,780	\$7,621,195,000

Table B.26 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Forrest County. HAZUS was used to obtain the critical facilities for the county and this data was modified to reflect recent changes. In addition, **Figure B.9** shows the locations of essential facilities in Forrest County. **Table B.27** shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

TABLE B.26: CRITICAL FACILITY INVENTORY IN FORREST COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools
Hattiesburg	8	3	1	1	15
Petal	4	2	0	0	7
Unincorporated Area	17	1	0	0	11
Forrest County Total:	29	6	1	1	33

Source: HAZUS-MH 6.1 and Planning Committee

Table B.27 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an “X”).

Facility Name	Facility Type	Other			Atmospheric					Geologic		Hydrologic		
		WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

Forrest County Critical Facilities														
Brooklyn Utility Association	Utility	VERY HIGH		X	X	X	X		X	X				
Brooklyn VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Forrest CO Ag. HS/ library/ Safe Room	School	Non-burnable		X	X	X	X		X	X				
Forrest CO Dist. 5 Barn	Service/ Repair	Non-burnable		X	X	X	X		X	X				
Janice VFD	Fire Station	HIGH			X	X	X		X	X				
South Forrest Attend. Center/ Safe Room	School	Non-burnable		X	X	X	X		X	X				
9 th Grade Academy- HHS	School	Non-burnable		X	X	X	X		X	X				
AAA Ambulance Service	Medical	Non-burnable	X	X	X	X	X		X	X				
Alpha Christian Sch.	School	Non-burnable	X	X	X	X	X		X	X				
Bedford Care Center	Care Facility	Non-burnable	X	X	X	X	X		X	X				
Blair Center Hattiesburg High	School	Non-burnable	X	X	X	X	X		X	X				
Bobby L. Chain Airport	Airport	Non-burnable	X	X	X	X	X		X	X				
Burney Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Camp Shelby	Military	Non-burnable	X	X	X	X	X		X	X				
Central Baptist School	School	Non-burnable	X	X	X	X	X		X	X				
City of Hattiesburg	Utility (water)	Non-burnable	X	X	X	X	X		X	X				X
City of Hattiesburg	Govt.	Non-burnable	X	X	X	X	X		X	X				
City of Hattiesburg- Clean Earth	Utility (energy)	Non-burnable	X	X	X	X	X		X	X				X
	HAZ-MAT	HIGH		X	X	X	X		X	X				
Department of Human Services	Govt.	Non-burnable	X	X	X	X	X		X	X				
Dixie Attend. Center Safe Room	School	HIGH		X	X	X	X		X	X				
Dixie Comm. Utility Assos.	Utility (water)	Non-burnable		X	X	X	X		X	X				
Dixie VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Earl Travillion Attend. Center	School	HIGH	X	X	X	X	X		X	X				
Earl Travillion Elementary	School	HIGH	X	X	X	X	X		X	X				
Entex Gas Pipeline Sta.	Energy Facility	Non-burnable	X	X	X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

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FEMA Comm. Shelter	Educ.	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Circuit Court	Govt./ Court	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Circuit Courthouse	Govt./ Court	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Coroner's Off.	Emerg. Service	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO District 1 Barn	Service/ Repair	HIGH		X	X	X	X		X	X				
Forrest CO District 2 Barn	Service/ Repair	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO District 2 Central Shop	Service/ Repair	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Eval. Center	Govt. EMS	Low		X	X	X	X		X	X				
Forrest CO Health Dept.	Care Facility	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Juvenile Deten. Center	Police Detent. Center	Non-Burnable	X	X	X	X	X		X	X			X	
Forrest CO Justice Court	Govt./ Court	Non-Burnable	X	X	X	X	X		X	X				
Forrest CO Multi-Purpose Center	Govt. Facility	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Schools	Admin Offices	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Sheriff	Police Station	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Sheriff's Dept.	Police Station	Non-burnable	X	X	X	X	X		X	X				
Forrest CO Sheriff's Service Center	Repair/ Service (Police)	Non-burnable	X	X	X	X	X		X	X				
Forrest General Hospital	Care Facility	HIGH	X	X	X	X	X		X	X				
Forrest CO District 4 Barn	Service/ Repair	Non-burnable		X	X	X	X		X	X				
Glendale Utility District	Utility (Water)	Non-burnable	X	X	X	X	X		X	X				
Grace Christian Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Clinic	Care Facility	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Convalescent Center	Care Facility	Non-burnable	X	X	X	X	X	X	X	X				
Hattiesburg Fire Dept.	Fire Station	Moderate	X	X	X	X	X		X	X				
Hattiesburg Fire Dept. #1	Fire Station	Moderate	X	X	X	X	X		X	X				
Hattiesburg Fire Dept. #3	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Fire Dept. #4	Fire Station	Non-burnable	X	X	X	X	X		X	X			X	
Hattiesburg Fire Dept. #5	Fire Station	Moderate	X	X	X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder -storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

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Hattiesburg Fire Dep #6	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Fire Dep#7	Fire Station	Low	X	X	X	X	X		X	X				
Hattiesburg Fire Dep #8	Fire Station	Non-burnable		X	X	X	X		X	X				
Hattiesburg High School	School	Non-burnable	X	X	X	X	X		X	X				
Hattiesburg Med. Supply	EMS center	Non-burnable		X	X	X	X		X	X				
Hattiesburg Police Chief	Police	Non-burnable			X	X	X		X	X				
Hattiesburg Police Dept.	Police Station	Non-burnable	X	X	X	X	X	X	X	X			X	
Hawkins Elem. School	School	Moderate	X	X	X	X	X		X	X			X	
Jessie L. Brown Tax Services	Emer. Service Center	Non-burnable	X	X	X	X	X		X	X				
Lillie Burney Elementary	School	Non-burnable	X	X	X	X	X		X	X				
Loyalton of Hattiesburg	Nursing Home	Non-burnable		X	X	X	X		X	X				
Mary Bethune Alternative	School	Non-burnable	X	X	X	X	X		X	X				
McLaurin VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
McLaurin/ Dantzler VFD Station #2	Fire Station	HIGH			X	X	X		X	X				
Merit Health Medical Group	Care Facility	Non-burnable		X	X	X	X		X	X				
Mississippi Power	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Mississippi Power CO	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Monroe Hall, LLC- Bedford Care Center	Nursing Home	Non-burnable	X	X	X	X	X		X	X				
Montessori Children's House	School	Non-burnable	X	X	X	X	X		X	X				
N R Burger Middle School	School	HIGH	X	X	X	X	X		X	X				
North Forest Attend. Center	School	Moderate		X	X	X	X		X	X				
North Forrest Elementary & Safe Room	School	Moderate		X	X	X	X		X	X				
North Forrest High School & Safe Room	School	Moderate		X	X	X	X		X	X				
North Forest VFD	Fire Station	HIGH	X	X	X	X	X		X	X				
North Forrest VFD Station 1	Fire Station	HIGH	X	X	X	X	X		X	X				
North Forrest VFD Station #2	Fire Station	HIGH		X	X	X	X		X	X				
Old Federal Building	City Court	Non-burnable	X	X	X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder -storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

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Paul B. Johnson State Park	Other critical facility	HIGH		X	X	X	X		X	X				
Presbyterian Christian Sch.	School	Low		X	X	X	X	X	X	X				
Rawls Springs Attend. Center	School	HIGH	X	X	X	X	X		X	X				X
Rawls Springs Utility District	Waste Water	Low	X	X	X	X	X		X	X			X	
Rawls Springs VFD	Fire Station	Moderate		X	X	X	X		X	X				
Resinall MS Inc.	HAZ-MAT	Moderate	X	X	X	X	X		X	X				
Rowan Elem. School	School	Non-burnable		X	X	X	X		X	X				
Sacred Heart Sch. & Library	School	Non-burnable	X	X	X	X	X		X	X				
Sam's Club #6503	Retail	Non-burnable		X	X	X	X		X	X				
South MS Chapter of the American Red Cross	Emerg. Service in a Disaster	Non-burnable	X	X	X	X	X		X	X				
South MS Electric Power Association	Utility/Power	Non-burnable		X	X	X	X		X	X				
Southeast MS Rural Health Initiative, Inc.	Care Facility	HIGH	X	X	X	X	X		X	X				
Southern Bone & Joint Specialists	Care Facility	Non-burnable		X	X	X	X		X	X				
Spire Energy	Utility/Energy	Non-burnable	X	X	X	X	X		X	X				
Thames Elem. School	School	HIGH	X	X	X	X	X		X	X				
The Emerg. Manag. District	EMS Center	Moderate		X	X	X	X	X	X	X				
U.S. Postal Service	Govt.	HIGH	X	X	X	X	X		X	X				
U.S. Postal Service	Govt.	Non-burnable	X	X	X	X	X		X	X				
University of Southern MS	College	Non-burnable	X	X	X	X	X		X	X				
University of Southern MS Public Safety	College Police Station	Non-burnable	X	X	X	X	X		X	X				
USM Physical Plant	Critical Facility	Non-burnable	X	X	X	X	X		X	X				
Walmart Supercenter #2717	Retail	Non-burnable		X	X	X	X		X	X				
Walmart Supercenter #916	Retail	Non-burnable		X	X	X	X		X	X				
Woodley Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Carnes VFD	Fire Dept	Low			X	X	X		X	X				
Carnes VFD Rescue	Fire Dept.	Low			X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

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Barrontown Utility District	Utility (Water)	Low			X	X	X		X	X				
Bedford Care Center of Petal	Nursing Home	HIGH	X	X	X	X	X		X	X			X	
Diversified CPC	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Dixie Electric Power Assoc.	Energy/ Utility	Moderate			X	X	X		X	X				
Dixie Pipeline Company	Transport	Non-burnable	X	X	X	X	X		X	X			X	
Eastabuchie Utility Assoc.	Utility (Water)	Non-burnable		X	X	X	X		X	X				
Enterprise Products Operating LP	HAZ-MAT Facility	Non-burnable	X	X	X	X	X		X	X		X		
Forrest County District 3 Barn	Service/ Repair	Low			X	X	X		X	X				
Lone Star NGL	HAZ-MAT	Non-burnable	X	X	X	X	X		X	X		X		
Macedonia VFD	Fire Station	Low			X	X	X		X	X				
Macedonia VFD Station #2	Fire Station	HIGH			X	X	X		X	X				
Macedonia VFD Station #3	Fire Station	Non-burnable		X	X	X	X		X	X				
Mid Coast Energy (Enbridge Petroleum)	Utility/ Energy	Non-burnable	X	X	X	X	X		X	X				
Petal City Hall	City Hall	Non-burnable	X	X	X	X	X		X	X				
Petal City Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Petal City Public Works Dept.	Govt.	Moderate	X	X	X	X	X		X	X		X		
Petal Civic Center	Emerg. Shelter	Non-burnable	X	X	X	X	X		X	X				
Petal Elem. School	School	Non-burnable			X	X	X		X	X				
Petal Fire Department	Fire Station	Moderate	X	X	X	X	X	X	X	X				
Petal Fire Station #1	Fire Station	Moderate	X	X	X	X	X	X	X	X				
Petal Fire Station #2	Fire Station	Non-burnable	X	X	X	X	X		X	X				
Petal Fire Station #3	Fire Station	Non-burnable			X	X	X		X	X				
Petal Gas Storage	Utility Care	Non-burnable	X	X	X	X	X		X	X				
Petal High School & Safe Room	School	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X		X	X		X		
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X		X	X		X		
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH	X		X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads &	Mobile HAZMAT 500-2500M Roads &	Drought	Thunder -storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

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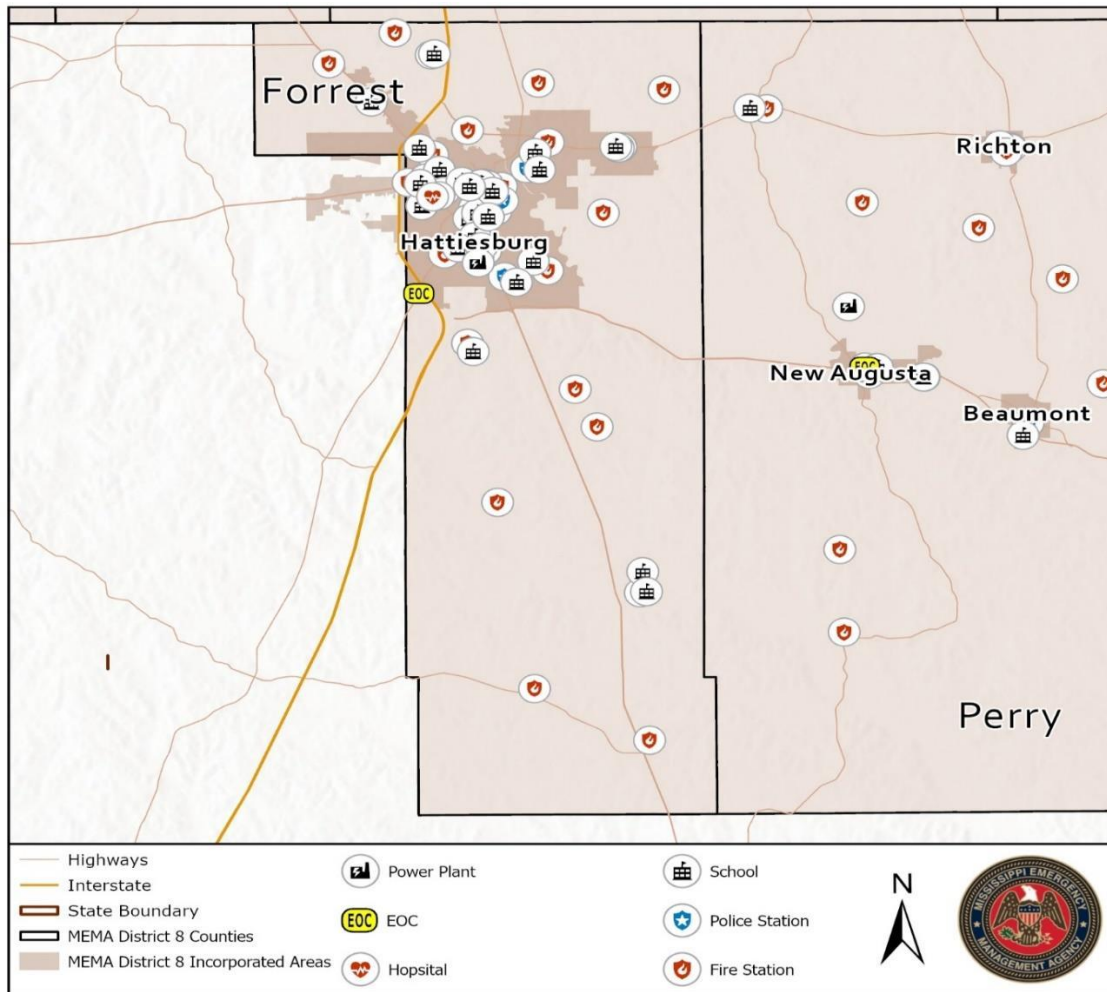
			Rails	Rails										
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X	X	X	X				X
Petal Lift Station	Waste-water	HIGH	X	X	X	X	X	X	X	X				
Petal Lift Station	Waste-water	HIGH	X		X	X	X		X	X				
Petal Lift Station	Waste-water	Low	X	X	X	X	X		X	X				
Petal Lift Station	Waste-water	Low	X		X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate	X	X	X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate	X	X	X	X	X		X	X			X	
Petal Lift Station	Waste-water	Non-burnable	X		X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable	X	X	X	X	X		X	X				X
Petal Lift Station	Waste-water	Non-burnable	X	X	X	X	X		X	X			X	
Petal Lift Station	Waste-water	Non-burnable	X	X	X	X	X		X	X			X	
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads &	Mobile HAZMAT 500-2500M Roads &	Drought	Thunder -storm, Lightning,	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood

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			Rails	Rails		& Hail								
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	HIGH			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Moderate			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable		X	X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Lift Station	Waste-water	Non-burnable			X	X	X		X	X				
Petal Middle School & Safe Room	School	Non-burnable	X	X	X	X	X	X	X	X				
Petal Plant A-Water Well	Utility	HIGH	X	X	X	X	X		X	X				
Petal Plant B-Water Well	Utility	Non-burnable	X	X	X	X	X	X	X	X				
Petal Plant C-Water Well & Tank	Utility	Moderate			X	X	X		X	X				
Petal Police Department	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Petal Post Office	Govt.	Non-burnable	X	X	X	X	X	X	X	X				
Petal Primary School & Safe Room	School	Low			X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility	Facility	WHP	Fixed HAZMAT	Mobile HAZMAT	Drought	Thunder -storm,	Hurricane /Tropical	Tornado	Winter Storm &	Earth-	Land-	Dam & Levee	100- Year	500- Year

Name	Type	Hazard	500-2500M Roads & Rails	500-2500M Roads & Rails		Lightning, & Hail	Storm		Freeze	quake	slide	Failure	Flood	Flood
Petal St. Pipe (Plants A & B)	Utility	HIGH	X	X	X	X	X		X	X				
Petal Upper Elem. School & Safe Room	School	Moderate			X	X	X		X	X				
Runnelstown Elem. School	School	HIGH		X	X	X	X		X	X				
Sunrise Utility	Utility	Non- burnable			X	X	X		X	X				
Sunrise VFD	Fire Station	Non- burnable			X	X	X		X	X				
Sunrise VFD Station #2	Fire Station	HIGH			X	X	X		X	X				
Targa	HAZ- MAT	Non- burnable	X	X	X	X	X		X	X			X	
W L Smith	School	Moderate	X	X	X	X	X		X	X				
Walmart Supercenter #887	Retail	Non- burnable			X	X	X		X	X			X	

FIGURE B.9: CRITICAL FACILITY LOCATIONS IN FORREST COUNTY



B.3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Forrest County that are potentially at risk to these hazards.

Table B.28 lists the population by jurisdiction according to U.S. Census 2010 and 2020 population. The results are presented as county-wide and city estimates. The total estimated population in Forrest County according to the 2023 Census data is 78,208 persons. If the increase in population continues the population increase could increase population vulnerability. Additional population estimates are presented above in *B.1*.

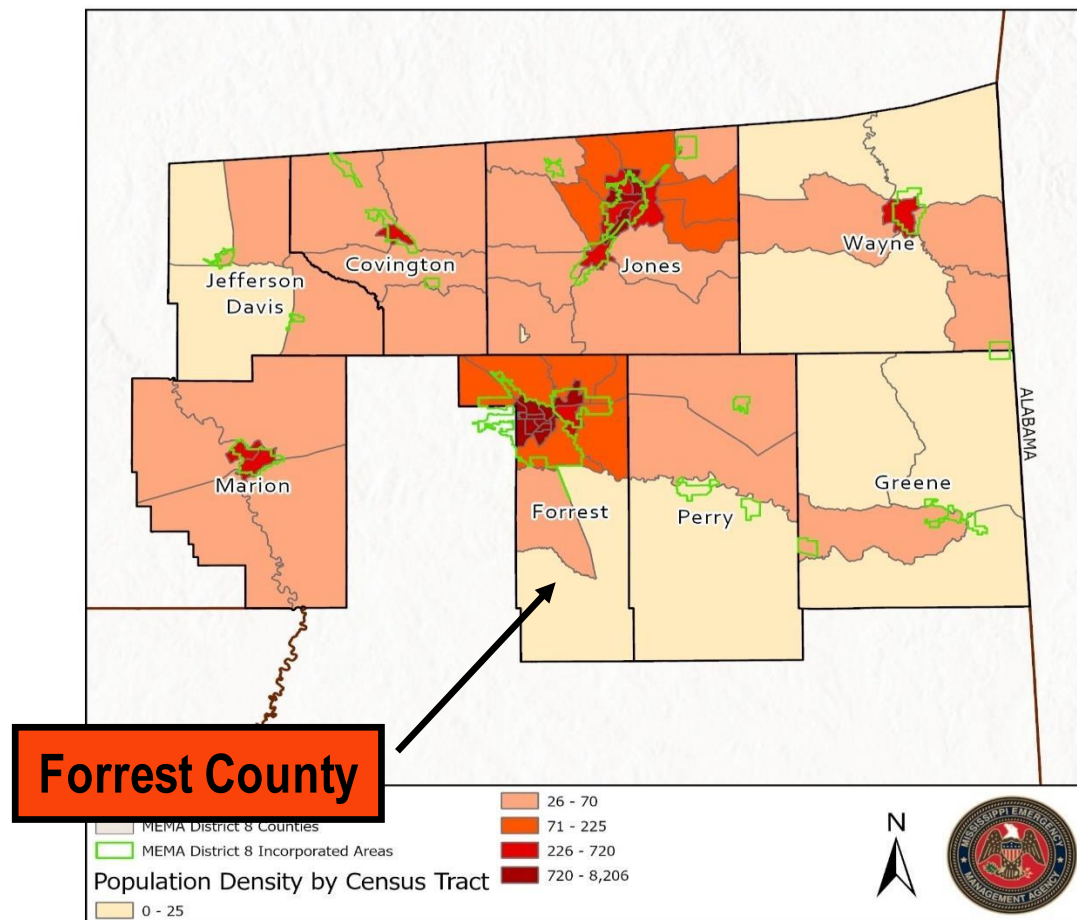
TABLE B.28 TOTAL POPULATION IN FORREST COUNTY

Jurisdiction	2010 Census	2020 Census
Forrest County Total:	75,007	78,158
<i>Hattiesburg</i>	45,798	48,731
<i>Petal</i>	10,477	11,010
<i>Unincorporated Area</i>	18,732	18,990

Source: US Census Bureau

In addition, **Figure B.10** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020. This information has not changed since the last plan update.

FIGURE B.10: POPULATION DENSITY IN FORREST COUNTY



B.3.3 Vulnerability Assessment Results

As noted in *Section 6: Vulnerability Assessment*, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Forrest County, are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table B.24**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

FLOOD

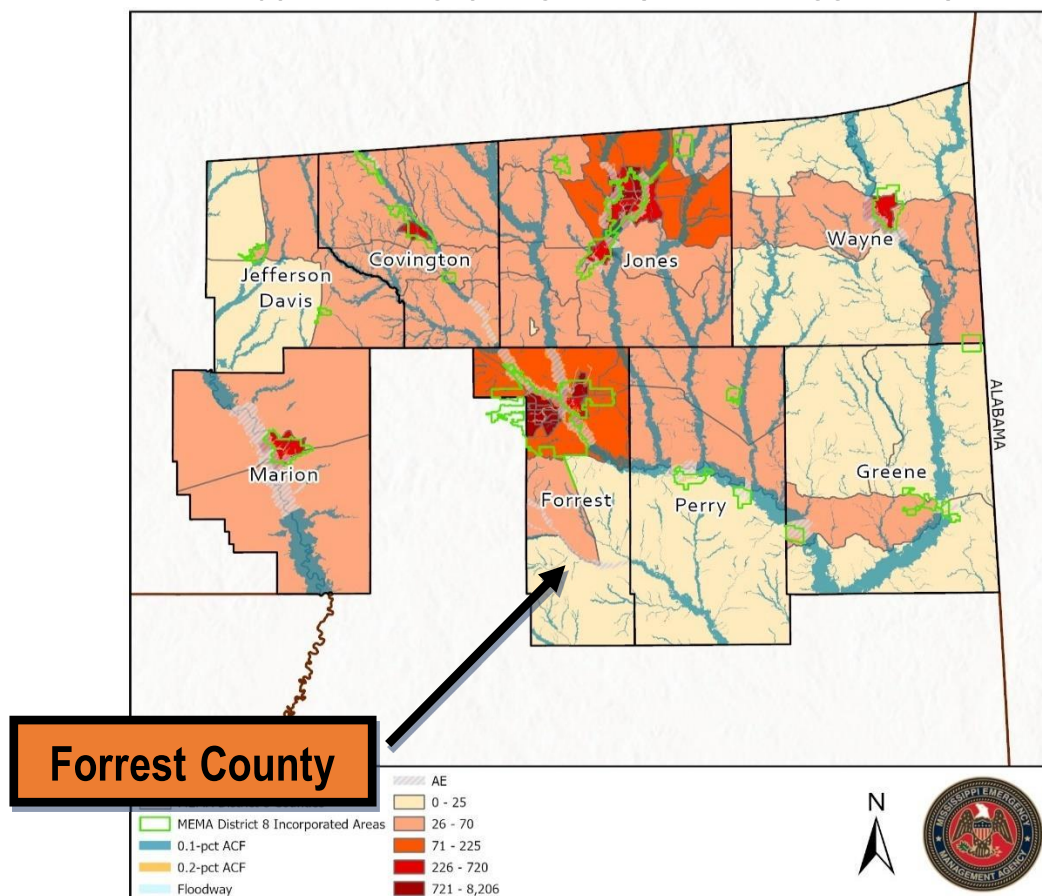
Historical evidence indicates that Forrest County is susceptible to flood events. A total of 107 flood events have been reported by the National Centers for Environmental Information resulting in \$9.142 Million in damages.

Since digital parcel data was not available, an analysis of improved property was not completed as it was determined that an analysis using the inventory from HAZUS would have been inaccurate and the results would not have been useful.

Social Vulnerability

Since 2020 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data

FIGURE B.11: POPULATION DENSITY NEAR FLOODPLAINS



Critical Facilities

The critical facility analysis revealed that there are 15 critical facilities located in the Forrest County 1.0-percent annual chance floodplain, valued at over \$10.8M. There are seven critical facilities located in the Forrest County 0.2-percent annual chance floodplain, valued at \$5.6M. A list of specific critical facilities and their associated risk can be found in **Table B.26**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Forrest County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

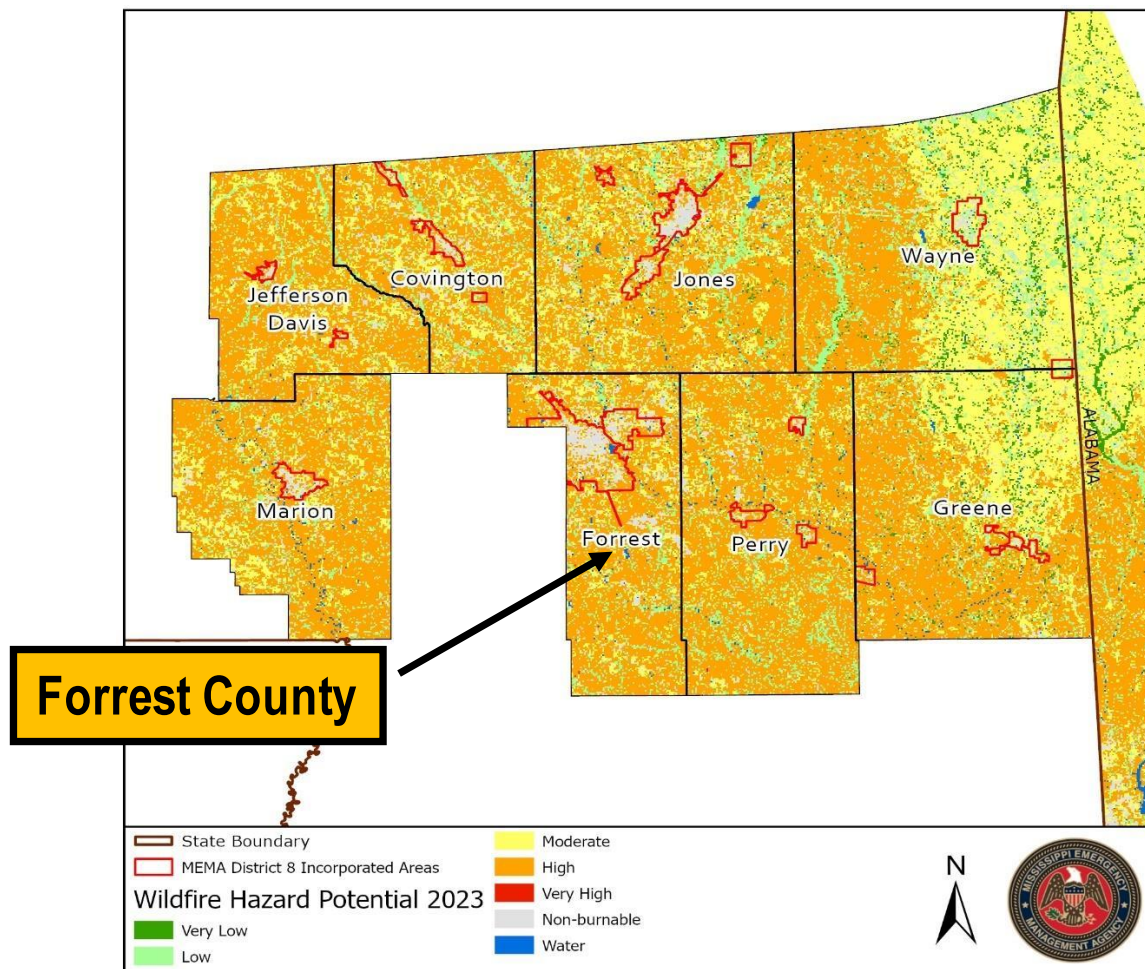
WILDFIRE

Although historical evidence indicates that Forrest County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure B.12 shows the wildfire hazard potential for Forrest County. Most of the planning areas falls within the low to high category.

FIGURE B.12: WILDFIRE RISK AREAS IN FORREST COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there are 18 critical facilities located in an area considered low risk valued at over \$12.7M. There are 25 critical facilities located in an area considered moderate risk valued at \$27.4M. There are 53 structures located in an area considered high risk, valued at over \$124.7M. It should be noted, however, that several factors could impact the spread of a wildfire putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table B.26**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Forrest County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 206 critical facilities identified for Forrest County, valued at over \$336M. All are vulnerable to the earthquake hazard.

In conclusion, an earthquake has the potential to impact all existing and future buildings, facilities, and populations in Forrest County. The HAZUS scenario indicates that minimal damage is expected from an earthquake occurrence. While Forrest County may not experience a large earthquake (there are none on record), localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table B.26**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Forrest County has an elevated risk to the hurricane and tropical storm hazard. Several tracks have come near or traversed through the county, as shown and discussed in *Section B.2.10*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There is an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amount of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of 2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Forrest County, all critical facilities are considered to be at risk. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. There are 206 critical facilities identified for Forrest County, valued at \$336M. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation action for especially vulnerable and/or critical facilities to mitigation against the effects of the hurricane hazard. A list of specific critical facilities can be found in **Table B.26**.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in Forrest County. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

HAZARDOUS MATERIALS INCIDENT

Although historical evidence and existing Toxic Release Inventory sites indicate that Forrest County is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS intersection analysis was used for fixed and mobile areas and parcels. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Forrest County, along with buffers, were used for analysis as shown in **Figure B.13**. There are several TRI sites located in Forrest County. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis, see **Figure B.14**.

FIGURE B.13 : TRI SITES WITH BUFFERS IN FORREST COUNTY

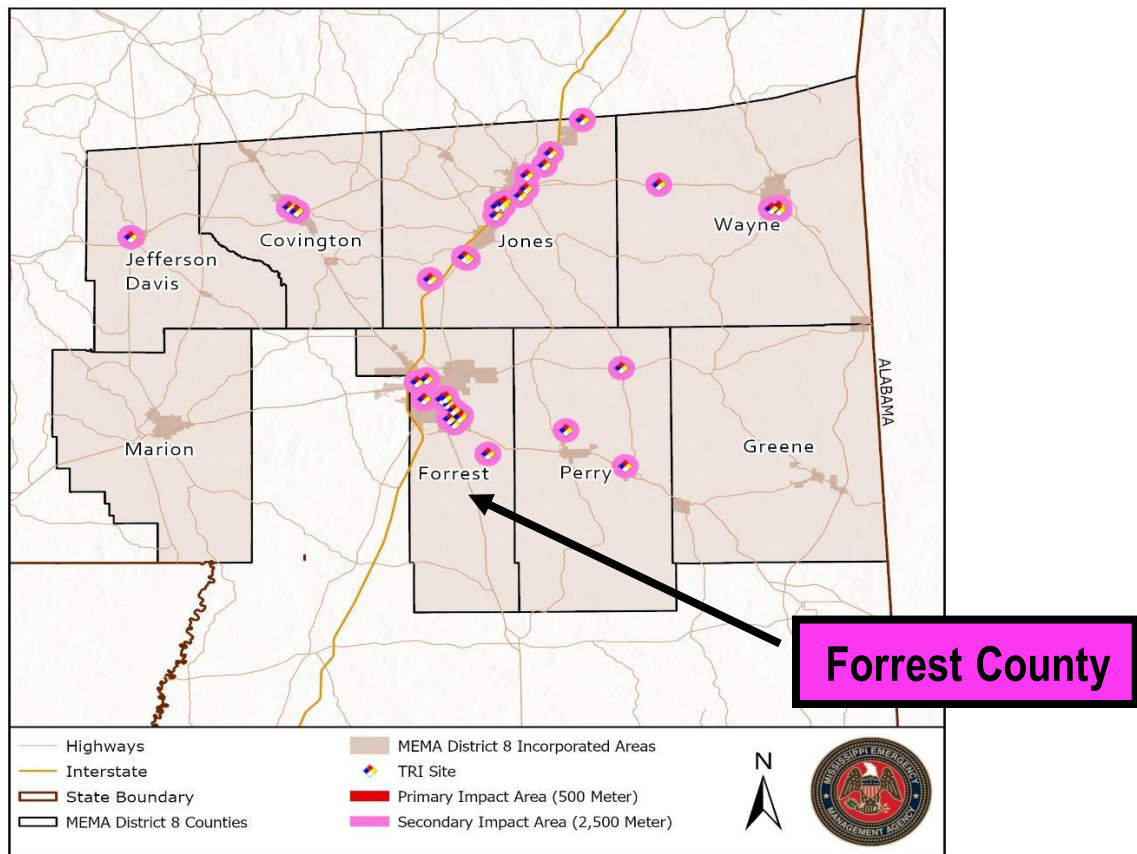
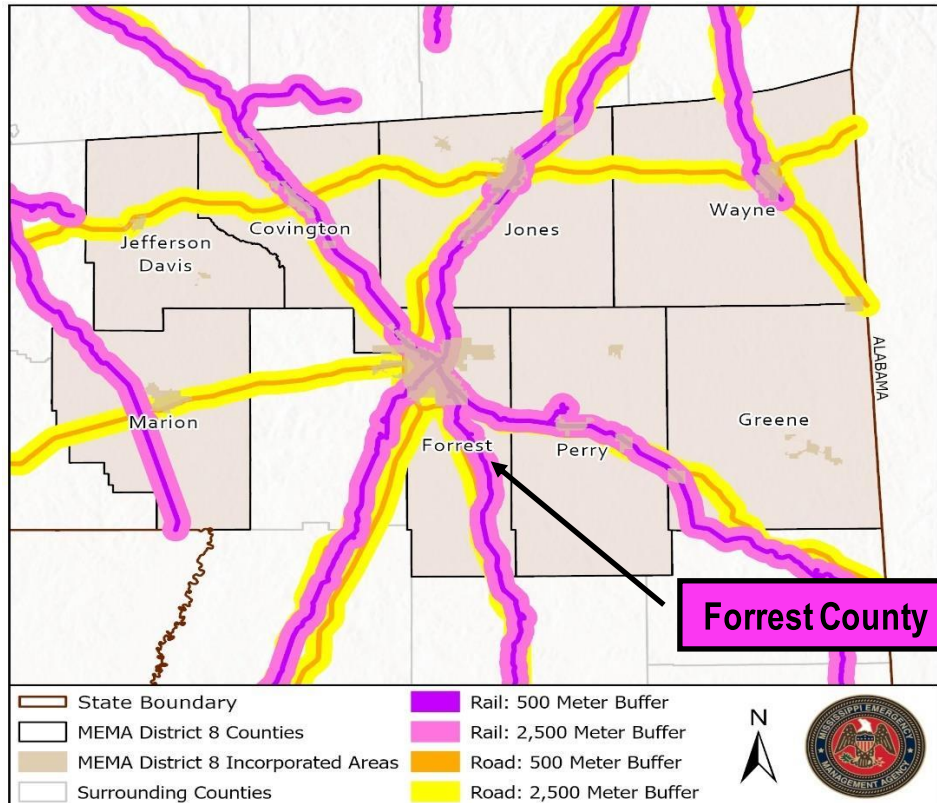


FIGURE B.14: MOBILE HAZMAT BUFFERS IN FORREST COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden to evacuate population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are 18 critical facilities that would be impacted by only the 500M HAZMAT risk zone, which are valued at over \$59.2M. There are 110 critical facilities that would be impacted by the 2500M HAZMAT risk zone, valued at over \$297.5M. A list of specific critical facilities and their associated risk can be found in **Table B.26**.

Mobile Analysis:

The critical facility analysis for transportation corridors in Forrest County revealed that there are 15 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at over \$8M, and there are 8 critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$3M.

Expanding to a 2500M HAZMAT risk zone reveals there are 130 critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable, valued at over \$330M. There are 119 critical facilities located in the railway mobile HAZMAT buffer areas that are vulnerable, valued at over \$319M. A list of specific critical facilities and their associated risk can be found in **Table B.26**.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Forrest County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

B.4 FORREST COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Forrest County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in *Section 7: Capability Assessment*.

B.4.1 Planning and Regulatory Capability

Table B.29 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Forrest County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE B.29: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Forrest County	Hattiesburg	Petal
Hazard Mitigation Plan	✓	✓	✓
Comprehensive Land Use Plan		✓	✓
Floodplain Management Plan		✓	
Open Space Management Plan	✓	✓	✓
Stormwater Management Plan/Ordinance	✓	✓	✓
National Resource Protection Plan			
Flood Response Plan			
Emergency Operations Plan	✓	✓	✓
Continuity of Operations Plan			
Evacuation Plan		✓	
Disaster Recovery Plan		✓	
Capital Improvements Plan			
Economic Development Plan	✓	✓	✓
Historic Preservation Plan		✓	
Flood Damage Prevention Ordinance	✓	✓	✓
Zoning Ordinance		✓	✓
Subdivision Ordinance	✓	✓	✓
Unified Development Ordinance		✓	
Post-Disaster Redevelopment Ordinance			
Building Codes		✓	✓
Fire Codes		✓	✓
National Flood Insurance Program (NFIP)	✓	✓	✓
National Community Rating System		✓	

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Forrest County has previously adopted a hazard mitigation plan. The City of Hattiesburg and the Town of Petal were also included in this plan.

Emergency Operations Plan

Forrest County maintains an emergency operations plan through its Emergency Management Agency. The City of Hattiesburg and the Town of Petal are each covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Forrest County has not adopted a county comprehensive land use plan. However, the City of Hattiesburg adopted a community development plan in 1972, and Town of Petal adopted a comprehensive plan in 1973.

Zoning Ordinance

Forrest County does not have a zoning ordinance in place. However, the City of Hattiesburg and Town of Petal have zoning ordinances that were adopted in 1972 and 1973, respectively.

Subdivision Ordinance

Forrest County does not have a subdivision ordinance in place. However, the City of Hattiesburg and Town of Petal adopted subdivision regulations in 1972 and 1966, respectively.

Building Codes, Permitting, and Inspections

Forrest County has not adopted a building code. However, the City of Hattiesburg and the Town of Petal have both adopted building codes.

FLOODPLAIN MANAGEMENT

Table B.30 provides NFIP policy and claim information for each participating jurisdiction in Forrest County.

TABLE B.30: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
Forrest County†	12/17/2010	11/19/2021	7	\$762,600	0	\$762,600
Hattiesburg	4/3/1970	11/19/2021	410	\$500,296	1,092	\$5,285,448
Petal	12/17/2010	11/19/2021	0	\$0	2	\$4,613

†Includes unincorporated areas of county only
(M) – No Elevation Determined, All Zone A, C and X

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Forrest County, Town of Petal, and City of Hattiesburg all participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Forrest County, the City of Hattiesburg, and the Town of Petal are all included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

B.4.2 Administrative and Technical Capability

Table B.31 provides a summary of the capability assessment results for Forrest County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE B.31: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Forrest County	Hattiesburg	Petal
Planners with knowledge of land development/ land management practices	✓	✓	✓
Engineers or professionals trained in construction practices related to buildings and/or infrastructure	✓	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards.	✓	✓	✓
Emergency Manager	✓	✓	✓
Floodplain Manager	✓	✓	✓
Land Surveyors	✓	✓	✓
Scientists familiar with the hazards of the community.	✓	✓	✓
Staff with education or expertise to assess the community's vulnerability to hazards.	✓	✓	✓
Personnel skilled in GIS and/or HAZ-US	✓	✓	
Resource development staff or grant writers		✓	

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

B.4.3 Fiscal Capability

Table B.32 provides a summary of the results for Forrest County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE B.32: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Forrest County	Hattiesburg	Petal
Capital Improvement Programing	✓	✓	✓
Community Development Block Grants (CDBG)	✓	✓	✓
Special Purchase Taxes (or taxing districts)		✓	
Gas/ Electric Utility Fees			
Water/ Sewer Fees			
Stormwater Utility Fees		✓	
Development Impact Fees			
General Obligation, Revenue, and/or Special Tax Bonds	✓	✓	✓
Partnering Arrangements or Intergovernmental Agreements	✓	✓	✓

B.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Forrest County is more likely to shift in support of hazard mitigation efforts.

B.5 FORREST COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Forrest County to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability

assessment and risk assessment. Additional Information can be found in *Section 8: Mitigation Strategy* and *Section 9: Mitigation Action Plan*.

B.5.1 Mitigation Goals

Forrest County developed five mitigation goals in coordination with the other participating MEMA District 8 Region jurisdictions. The regional mitigation goals are presented in **Table B.33**.

TABLE B.33: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

Goal	
Goal #1	Encourage the development and maintenance of facilities and infrastructure that will mitigate hazards
Goal #2	Foster an on-going community education program on hazard mitigation safety and preparation.
Goal #3	Enhance response procedures and capabilities.
Goal #4	Utilize technology to protect and develop records and data.

B.5.2 Mitigation Action Plan

The mitigation actions proposed by Forrest County, the City of Hattiesburg, and the Town of Petal are listed in the following individual Mitigation Action Plans.

Forrest County Mitigation Action Plan								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status

Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, EMA District	Ongoing	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County Floodplain Administer	Ongoing	Implemented and ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Completed and ongoing as needed
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Road Crews	Annual Review	Ongoing as funding is available
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering/ Ongoing
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering/ Ongoing
P-8	Support the development of a shared geographic data system for land use and site planning.	All	High	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	Low	CDBG, MSDA	Unknown	County	Ongoing	County is considering
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MCDA	No cost	County	Concurrent with prep. of Comp. Plan	County is considering/ ongoing
P-11	Address the threat of unhealthy trees that are near critical facilities.	HW, WS, H	Medium	Local Funds and Grant Sources	TBD	City Urban Forestry, County Road Department Planning Dept., EMA District	Ongoing	Ongoing
P-12	Address the local need of debris removal and related items after a storm.	HW, FL, Landslide, WS, H	High	HMGP and other grant Sources	\$500,000	County Road Dept., Planning Dept., and County, EMA District	Ongoing	Ongoing
P-13	Preserve classified, confidential and/or important governmental documents.	All Hazards	High	Local and Grant Sources	TBD	County	Ongoing	Ongoing
P-14	Rehabilitating and/or removing high and significant hazard dams from service	Dam Failure	High	Local and Grant Sources	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing
P-15	Adopting and enforcing land use ordinances in dam inundation zones downstream of dams	Dam Failure	High	Local and Grant Sources	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing
P-16	Acquiring and/or elevating structures and/or acquiring easements in inundation zones downstream of dams	Dam Failure	High	Local and Grant Sources	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing
P-17	Flood protection, such as berms, floodwalls, or floodproofing, in inundation zones downstream of dams	Dam Failure	High	Local and Grant Sources	TBD	County Planning and Zoning Dept.	Ongoing	Ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to	All	High	HMGP	Unknown	County	Ongoing	Ongoing as funds are

	withstand natural hazards.							available
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	HMGP, USDA Rural Dev., CDBG, Small Muni. Grant	Unknown	County	Ongoing	Ongoing pending available funds
PP-6	Actively pursue and buy those properties that are considered repetitive loss properties.	All	High	HMGP, PDM, FMA Self-funded	Unknown	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, & County	Ongoing	Ongoing pending available funds
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	EMA District	Ongoing	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, EMA District	Ongoing	Ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP Local Funds	Unknown	County, EMA District		Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-8	Explore upgrade/enhancement of 911 system in Forrest County.	All	Medium	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County, EMA District	Ongoing	Completed pending upgrades
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, EMA District	Ongoing	Ongoing
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	EMA District	Ongoing	Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	Unknown	County	Ongoing	Ongoing pending available funds
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing pending available funds
ES-14	Host a meeting to review Forrest County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County, EMA District	Ongoing	Completed and Ongoing
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of the Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, others	Unknown	County	Ongoing	Implemented as Funds become available

ES-16	Adoption of building codes in Forrest County.	All Hazards	Medium	Local	TBD	County	Ongoing	Deferred
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
Public Education and Awareness								
PEA-1	Explore continuing education programs/opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Ongoing pending available funds
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	EMA District	Ongoing	Ongoing, if funds available
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	EMA District	Ongoing	Ongoing-contingent on funding
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County, EMA District	Upon Request	Ongoing – contingent on funding
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County, EMA District	Ongoing	Implemented/Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	The County is considering joining CRS
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	TBD	County	Ongoing	Ongoing – contingent on funding
PEA-8	Discourage development within the Special Flood Hazard Area and in the floodway.	FL	Medium	HMGP	TBD	County	Ongoing	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation/Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic WS = Winter Storm H=Hail EMA District = Forrest County Emergency Management District County BOS = Forrest County Board of Supervisors								

City of Hattiesburg Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								

ANNEX B: FORREST COUNTY

P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, EMA District	Ongoing	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County Floodplain Administer	Ongoing	Ongoing
P-4	Strictly enforce of subdivision regulations concerning developments in flood hazard areas.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Completed and ongoing as needed
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Road Crews	Annual Review	Ongoing as funding is available
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	The City is considering/ Ongoing
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	The City is considering/ Ongoing
P-8	Support the development of a shared geographic data system for land use and site planning.	All	High	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	Low	CDBG, MSDA	Unknown	County	Ongoing	Process will begin in 2025
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MCDA	No cost	County	Concurrent with prep. of Comp. Plan	Completed & ongoing
P-11	Address the threat of unhealthy trees that are near critical facilities.	HW, WS, H	Medium	Local Funds and Grant Sources	TBD	City Urban Forestry, County Rd. Department Planning Dept., EMA District	Ongoing	Ongoing
P-12	Address the local need of debris removal and related items after a storm.	HW, FL, Landslide, WS, H	High	HMGP and other grant Sources	\$500,000	County Road Dept., Planning Dept., and County EMA District	Ongoing	Ongoing
P-13	Preserve classified, confidential and/or important governmental documents.	All Hazards	High	Local and Grant Sources	TBD	County	Ongoing	Ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	New construction is regulated by the flood damage prevention ordinance. Existing structures in the flood zone that need to be elevated will be evaluated on a case-by-case basis pending funding and desire to be elevated.
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Ongoing as funds are available
	Ensure secure operation of water			HMGP, USDA Rural Dev.,	Unknown			Ongoing pending

PP-5	wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant		County	Ongoing	available funds
PP-6	Actively pursue and buy those properties that are considered repetitive loss properties.	All	High	HMGP, PDM, FMA Self-funded	Unknown	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, Co.	Ongoing	Ongoing pending available funds
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	EMA District	Ongoing	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, EMA District	Ongoing	Ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP Local Funds	Unknown	County, EMA District		Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County, EMA District	Contingent on funding	Implemented & Ongoing pending available funds
ES-8	Explore upgrade/enhancement of 911 system in Forrest County.	All	Medium	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County, EMA District	Ongoing	Completed pending upgrades
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, EMA District	Ongoing	Ongoing
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	EMA District	Ongoing	Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Ongoing pending available funds
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing pending available funds
ES-14	Host a meeting to review Forrest County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County, EMA District	Ongoing	Completed and Ongoing

ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, others	Unknown	County	Ongoing	Implemented as Funds become available
ES-16	Adoption of building codes in Forrest County.	All Hazards	Medium	Local	TBD	County	Ongoing	Deferred
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Ongoing pending available funds
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	EMA District	Ongoing	Ongoing, if funds available
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	EMA District	Ongoing	Ongoing, if funds available.
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County, EMA District	Upon Request	Ongoing – contingent on funding
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County, EMA District	Ongoing	Implemented/ Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	A CRS Community (Class 8), pursuing a better rating
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	TBD	County	Ongoing	Ongoing – contingent on funding
PEA-8	Discourage development within the Special Flood Hazard Area and in the floodway.	FL	Medium	HMGP	TBD	County	Ongoing	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation/Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic WS = Winter Storm H=Hail EMA District = Forrest County Emergency Management District County BOS = Forrest County Board of Supervisors								

City of Petal Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, EMA District	Ongoing	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County Floodplain Administer	Ongoing	Ongoing
P-4	Strictly enforce of subdivision regulations concerning developments in flood hazard areas.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Completed & ongoing as needed
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Unknown	County BOS & Road Crews	Annual Review	Ongoing as funding is available
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	The City is considering/ Ongoing
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	The City is considering/ Ongoing
P-8	Support the development of a shared geographic data system for land use and site planning.	All	High	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	Low	CDBG, MSDA	Unknown	County	Ongoing	The City is considering
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MCDA	No cost	County	Concurrent with prep. of Comp. Plan	The City is considering
P-11	Address the threat of unhealthy trees that are near critical facilities.	HW, WS, H	Medium	Local Funds and Grant Sources	TBD	City Urban Forestry, County Rd. Department Planning Dept., EMA District	Ongoing	Ongoing
P-12	Address the local need of debris removal and related items after a storm.	HW, FL, Landslide, WS, H	High	HMGP and other grant Sources	\$500,000	County Road Dept., Planning Dept., and County, EMA District	Ongoing	Ongoing
P-13	Preserve classified, confidential and/or important governmental documents.	All Hazards	High	Local and Grant Sources	TBD	County	Ongoing	Ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	New construction is regulated by the flood damage prevention ordinance. Existing structures in the flood zone that need to be elevated will be evaluated on a case-by-case basis pending funding and desire to be elevated.
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to	All	High	HMGP	Unknown	County	Ongoing	Ongoing as funds are

	withstand natural hazards.							available
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	HMGP, USDA Rural Dev., CDBG, Small Muni. Grant	Unknown	County	Ongoing	Ongoing pending available funds
PP-6	Actively pursue and buy those properties that are considered repetitive loss properties.	All	High	HMGP, PDM, FMA Self-funded	Unknown	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, Co.	Ongoing	Ongoing pending available funds
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	EMA District	Ongoing	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, EMA District	Ongoing	Ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County, EMA District	Ongoing	Ongoing
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP, Local Funds	Unknown	County, EMA District		Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County, EMA District	Contingent on funding	Implemented & Ongoing pending available funds
ES-8	Explore upgrade/enhancement of 911 system in Forrest County.	All	Medium	HMGP	Unknown	County, EMA District	Contingent on funding	Ongoing pending available funds
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County, EMA District	Ongoing	Completed pending upgrades
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, EMA District	Ongoing	Ongoing
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	EMA District	Ongoing	Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Ongoing pending available funds
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing pending available funds
	Host a meeting to review Forrest County				No	County, EMA		Completed

ES-14	Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	additional cost	District	Ongoing	and Ongoing
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, others	Unknown	County	Ongoing	Implemented as Funds become available
ES-16	Adoption of building codes in Forrest County.	All Hazards	Medium	Local	TBD	County	Ongoing	Deferred
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
Public Education and Awareness								
PEA-1	Explore continuing education programs/opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Ongoing pending available funds
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	EMA District	Ongoing	Ongoing, if funds available
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	EMA District	Ongoing	Ongoing, if funds available.
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County, EMA District	Upon Request	Ongoing – contingent on funding
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County, EMA District	Ongoing	Implemented/ Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	The City is considering joining CRS
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	TBD	County	Ongoing	Ongoing – contingent on funding
PEA-8	Discourage development within the Special Flood Hazard Area and in the floodway.	FL	Medium	HMGP	TBD	County	Ongoing	Ongoing – contingent on funding
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation/Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic WS = Winter Storm H=Hail EMA District = Forrest County Emergency Management District County BOS = Forrest County Board of Supervisors								

Annex C

Greene County

This annex includes jurisdiction-specific information for Greene County and its participating municipalities. It consists of the following five subsections:

- ★ C.1 Greene County Community Profile
- ★ C.2 Greene County Risk Assessment
- ★ C.3 Greene County Vulnerability Assessment
- ★ C.4 Greene County Capability Assessment
- ★ C.5 Greene County Mitigation Strategy

C.1 GREENE COUNTY COMMUNITY PROFILE

C.1.1 Geography and the Environment

Greene County is located in the southeastern part of the State of Mississippi; the county is almost a perfect rectangle. The county contains 713 square miles, or 465,920 acres, and 16th largest county in Mississippi. The boundaries are as follows: On the north by Wayne County; on the east by Washington County and Mobile County Alabama; on the south by George County and on the west by Perry County. There are three municipalities, The Town of McLain, The Town of State Line, Town of Leakesville in Greene County. The remaining population resides in unincorporated communities and unincorporated rural areas. Leakesville, the county seat, is located approximately 144 miles south of Jackson, Mississippi and approximately 56 miles northwest of Mobile, Alabama.

Greene County lies within the Gulf Coastal plain province and in the Long Leaf Pine region in Mississippi, locally called the “Piney Woods” country. The upland soils of the county are derived from two main classes of coastal plain materials: beds of sandy clay and beds of heavy clay. The two major water sources in Greene County are the Leaf River and the Chickasawhay River. Desoto National Forest also spans into Greene County.

The climate of Greene County is mild with mean annual temperatures in the upper 60’s. Average winter temperatures range from 50 to 60 degrees Fahrenheit with summer temperatures ranging from 85 to 95 degrees Fahrenheit. Rainfall averages approximately 62 inches annually with the majority of the accumulation in July through September. Wind speeds are generally less than 10 miles per hour, but often increase during storms. Thunderstorms occur frequently and are sometimes accompanied by strong to severe winds, including tornadoes.

The most pleasant months of the year for Greene County are April, October and May. In Greene County, there are 5 comfortable months with high temperatures in the range of 70-85°. July is the hottest month for Greene County with an average high temperature of 91°, which ranks it as warmer than most places in Mississippi. December is the snowiest month in Greene County with 0.1 inches of snow, and no months of the year have significant snowfall. The most uncomfortably humid months are June, July, and August.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	59	64	71	78	85	90	91	91	88	80	69	63
Average Lows	42	46	52	58	65	72	74	74	70	60	49	46
Average Rainfall	4.9	6.0	5.5	4.9	5.6	6.2	7.0	5.71	5.6	3.6	3.8	5.8

FIGURE C.1: GREENE COUNTY ORIENTATION MAP

C.1.2 Purpose

The purpose of the Greene County Hazard Mitigation Plan is to improve the County's level of disaster preparedness and resilience to natural and manmade disasters. To identify hazards and analyze the risks associated with each hazard. To significantly reduce the risk of loss of life, injuries, economic cost, and destruction of natural and cultural resources that result from natural hazards. To assess the community's vulnerability to the identified hazards and develop community goals for an achievable mitigation strategy. To substantially increase public awareness of natural hazards risks. To encourage the adoption of ordinances that help mitigate risks, such as Comprehensive Zoning Ordinances, Subdivision Regulations, Comprehensive Land Use Plans, Flood Zone Ordinances, and Building and Fire Prevention Codes.

C.1.3 History

Greene County, the first of two counties established by an act of December 9, 1811, was created from the southeastern part of Wayne County. The name was spelled Greene in the establishing act but was spelled Green in many other early acts. Greene County was once part of the Choctaw Indian Nation and through a series of treaties became part of the Mississippi Territory and was opened for settlement in the early 1800's. Greene County was named after General Nathaniel Greene, a Revolutionary War hero. Leakesville, as recited in the act of January 26, 1826, was named "in honor of the memory of the late Governor Walter Leake. Leakesville is the county seat of Greene County. Located in the Pine Belt in the Southeastern portion of Mississippi, Leakesville was established circa 1826 as the new county seat of Greene County by the legislature. The town was named in honor of Walter Leake the first territorial governor of Mississippi.

The site of Leakesville was chosen due to its location along the Chickasawhay River and the Paulding Road, one of the first Federal Roads to traverse the Piney Woods. During its early days the river served as the primary highway for commerce, with small steamboats trading at Leakesville, and ascending farther north. The principal industry during the early years was lumbering, farming, stock-raising, and turpentine. In 1903 the first railroad connection was established, when the Vinegar Bend Lumber Company extended their line to Leakesville, which was subsequently, connected to a line running to Pascagoula. The railroad caused an expansion of the already burgeoning timber industry causing the population to grow and calls for incorporation. Leakesville was incorporated as a Town in 1906 with J.E. Alderman, as the first mayor. Since incorporation the city has grown from 123 residents to approximately 3,836. The town is poised for future growth due to the presence of a new four-lane highway and expanding health care and education opportunities, as well as outdoor recreational activities. Other towns include McLain and State Line. Still other small communities include Leaf, Neely, Sand Hill, Vernal, Knobtown, Buffalo, Jonathan, Avera, and Old Avera.

C.1.4 Population and Demographics

Greene County currently has a population of close to 13,530 people, of which approximately 2000 can be attributed to the prisoner population at South Mississippi Correctional Institute. It is one of Mississippi's smallest counties by population, but one of the largest counties by land mass. The county has seen almost 6% percent decrease between 2010 and 2020, and the population density is 19 people per square mile. The Town of Leakesville had a large increase in population between 2010 and 2020 due to the annexation of the South Mississippi Correctional Institution. This increase could greatly increase the vulnerability of the community of Leakesville, while decreasing the vulnerability in the rest of the county with their declining population. Per the Census Reports, in 2023, Greene County had a population of 13,601, which is a .522 percent increase since 2020. The household income is \$50,000, which grew by 25.2 percent. Population counts from the US Census Bureau for 2010, and 2020 for the county and both of the participating jurisdictions are presented in **Table C.1**. Estimates for 2023 are also included.

TABLE C.1: POPULATION COUNTS FOR GREENE COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2023 Estimate
Greene County	14,400	13,530	-6%	13,601
<i>Leakesville</i>	898	3,775	320%	3,767
<i>McLaurin</i>	441	313	-29%	343
<i>State Line</i>	565	452	-20%	439

Source: US Census Bureau

Based on the 2020 Census, the median age of residents of Greene County is 40.0 years. The racial characteristics of the county are presented in **Table C.2**. However, according to the estimates provided by the Census Reports, the median age in 2023 remained the same at 40 years. The population of black persons is 26 percent, and 2 percent is Hispanic or Latino. Whites make up the majority of the population in the county, accounting for 71 percent of the population. According to Greene County School District, the county serves 1,659 students, with a minority population of 20%. Also 71% of the students classify as economically disadvantaged.

TABLE C.2: DEMOGRAPHICS OF GREENE COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Greene County	71%	26%	0.4 %	1%	2%
<i>Leakesville</i>	45%	53%	0.2%	1%	1%
<i>McLain</i>	62%	34%	1%	1%	2%
<i>State Line</i>	42%	55%	0.4%	1%	2%

Source: US Census Bureau

TABLE C.3: AVERAGE INCOME AND HEALTH IN GREENE COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below The Poverty Level
Greene County	25%	14%	\$50,000	18%
<i>Leakesville</i>	25%	10%	\$49,250	26%
<i>McLain</i>	25%	15%	\$30,938	8%
<i>State Line</i>	27%	38%	\$52,719	40%

Source: US Census Bureau

C.1.5 Housing

According to the 2020 US Census, there are 5,104 housing units in Greene County, the majority of which are single family homes or mobile homes. Per 2023 estimates, the total number of houses decreased by 0.5 percent although Leakesville's population increased. However, the median home value is \$115,800. Housing information for the county and three towns is presented in **Table C.4**.

TABLE C.4: HOUSING CHARACTERISTICS OF GREENE COUNTY

Jurisdiction	Housing Units (2010)	Housing Units (2020)	Median Home Value (2020)
Greene County	5,123	5,190	\$115,800
<i>Leakesville</i>	424	588	\$134,700
<i>McLain</i>	220	190	\$85,000
<i>State Line</i>	255	211	\$129,700

Source: US Census Bureau

C.1.6 Infrastructure

TRANSPORTATION

Greene County is located near the center of the southeast portion of Mississippi. The Town of Leakesville is the county seat. The County is well served with a transportation network that includes five U.S. highways. Highway 98 runs through the county in the and runs in a northeasterly direction through McLain into Perry County to the northeast. U.S. Highway 29 bisects Greene County from the southeast corner of the County to the northwest corner. U.S. Highway 45 is also a north-south route. State Highway 42 is an east-west route. Highway 42 is in the northern most portion for the county. Highway 63, is a primary evacuation route from the Southeast portion of the Mississippi Coast, runs just south of the Town of Leakesville. When storms have threatened southeastern Louisiana in the past, and large numbers of refugees have arrived in Greene County, seeking emergency services such as sheltering, food, and fuel.

The City of Hattiesburg maintains the closest airport, the Hattiesburg Bobby L. Chain Municipal Airport (HBG) in the Hattiesburg/Forrest County Industrial Park. Located four miles south of the city center, the municipal airport provides business and general aviation services for much of South Mississippi. Commercial air transportation is available at the Hattiesburg-Laurel Regional Airport, 40-minute drive from the South end of the county. International airports in Jackson, Gulfport, and New Orleans are all also within about a 100-mile radius of Forrest County.

UTILITIES

The Mississippi Power Company and Singing River EPA furnish electric power to Greene County. Natural gas is available in the county's three municipalities and propane gas is widely distributed by several dealers. AT & T and TDS furnish telephone communications system; additionally, several other companies provide cellular telephone service to the county. Because of their importance in maintaining communications during an emergency, cellular phone towers are considered critical facilities in Greene County.

The public utility companies have mutual aid pacts with other providers to furnish assistance when major damage occurs to their transmission systems. Both also have disaster response plans in place and are responsible for their distribution systems and facilities, ensuring that the service is restored as quickly as possible after a disaster occurs.

Several flammable storage facilities are also located in the county. Additionally, several industrial interests manufacture or use flammable, toxic, explosive, or water-reactive materials in their manufacturing process. Most have disaster response plans in place and are responsible for their facilities.

COMMUNITY FACILITIES

There are a number of buildings and community facilities located throughout Greene County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are 10 fire stations, 3 police stations, and 6 public schools located within the county.

There is one hospital located in Greene County. Greene County Hospital is a county-owned, not-for-profit healthcare facility. The campus includes a hospital with an ER, a nursing home, and Greene County Family Medical Clinic.

Greene County lies within the Gulf Coastal plain province and in the Long Leaf Pine region in Mississippi, locally called the “Piney Woods” country. The upland soils of the county are derived from two main classes of coastal plain materials: beds of sandy clay and beds of heavy clay. The two major water sources in Greene County are the Leaf River and the Chickasawhay River. Desoto National Forest also spans into Greene County.

C.1.7 Land Use

Many areas of Greene County are undeveloped or sparsely developed due to the county’s location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region’s population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

C.1.8 Employment and Industry

According to the Mississippi Employment Security Commission (MESC), in 2024, Greene County had an average annual employment of 4,220 workers and an average unemployment rate of 2.7% percent. According to the MESC, in 2023, the Education Services and Health Care employed 23% percent of the workforce followed by Construction (18.5%) and Manufacturing (10.3%). The average annual wage in Greene County was \$50,000.

Greene County’s main employers are in the sectors of government, public education, and wholesale/retail trade. The farming industry in Greene County is relatively stable. The total number of farms in the area decreased by .5% between 2007-2012; however, the average farm size increased 8% during the same period and the total number of acres farmed also increased by 4%. The Comprehensive Economic Development Strategy (CEDS) for Greene County identified two key issues as threats to the economic environment of the County. These were lack of health care facilities and lack of nearby air transportation services. Community assets greatly enhance the economic potential of any area. Since 2010, Greene County has funded a hospital and also has air support services in the area. An opportunity identified in the CEDS was consumer spending. A significant number of Greene County residents commute to jobs outside of the County and shop for goods and services in the areas of their workplaces. Increasing local options for obtaining goods and services within the County will increase tax revenue and also increase the number of prospective residents in Greene County. This will directly affect the makeup of the labor force and possibly bring new and better jobs to the County.

C.2 GREENE COUNTY RISK ASSESSMENT

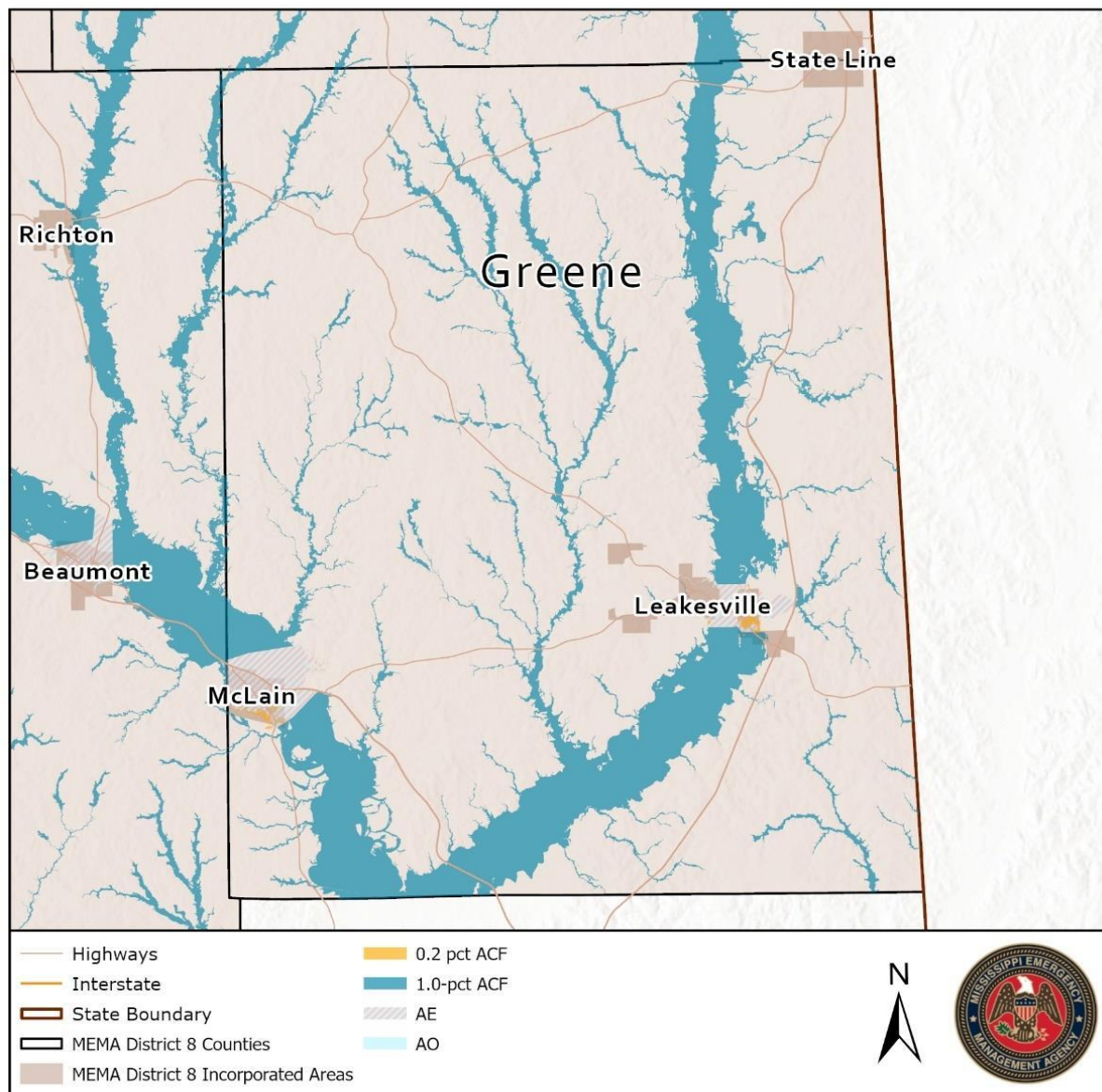
This subsection includes hazard profiles for each of the significant hazards identified in *Section 4: Hazard Identification* as they pertain to Greene County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in *Section 5: Hazard Profiles*.

C.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Greene County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain).

FIGURE C.2: SPECIAL FLOOD HAZARD AREAS IN GREENE COUNTY



Floods resulted in eight disaster declarations in Greene County in 1970 and 2024. Information from the National Centers for Environmental Information was used to ascertain historical flood events.

HISTORICAL SUMMARY FLOOD LOSSES

In 2010, the **town of Leakesville, town of McLain and town of State Line** entered into an inter-local agreement with the Greene County Board of Supervisors allowing the County Floodplain Manager to administer their Flood Damage Prevention Ordinances, keeping them in compliance with the NFIP. This process is done by sending all of their constituents to the County office for their flood permits for review and compliance purposes. The permit is then forwarded to the correct jurisdiction for final signatures by the Mayor/Clerk. The recorded inter-local agreements can be found at the Greene County Chancery Clerk's office.

The **Town of Leakesville** is more likely to flood due to the low area that the town is built in. Critical infrastructure such as City Hall and the Police Department are housed in the same building that is usually affected by floodwater resulting from drainage issues. Local records show that the extent of damage, thus far, has been minor and has affected only a few commercial structures and a few residences. All of these structures are located out of the Special Flood Hazard Area (SFHA), therefore; they are *not considered repetitive loss properties*. When the Chickasawhay River reaches moderate flood stage 28 feet, we have 2 to 3 feet of backwater flooding local roads and water under low-lying structures.

The **Town of McLain** has a flood prone area as well, but very rarely has any structures been affected. *All of the structures* surrounding this area are *outside of the SFHA*. This area is located along the part of Leaf River and Chickasawhay River that runs through the Town of Leakesville. McLain has *no structures* placed inside a **SFHA** within the city limits. When the Leaf River reaches moderate flood stage 24 feet, we have 1 to 4 feet of backwater flooding street and local roadways and water under low lying structures.

The **Town of State Line** has rarely seen any flood problems. There are no structures located in the SFHA.

The **Unincorporated Greene County** has areas that are susceptible to flooding. The area of particular concern is in the northeast portion of the county along Leaf River and Chickasawhay River. These rivers are highly susceptible to flooding due to heavy rainfall. Local reports suggest that 1 to 2 feet of rain in a one-hour period usually causes all four jurisdictions to flood with 1 to 4 feet of water depending on moderate River stage (Chickasawhay River 28 feet, Leaf River 24 feet) at the time the flooding occurs. Since 2000 through 2024, Greene County and the Towns of Leakesville, McLain and State Line were affected by Several instances of countywide flooding/flash flooding. The Summery of this twenty-four-year history is shown in **Table C.5**. Most of these flood events were caused by hurricanes and tropical storms, although flooding can also occur as a result of heavy rainfall not necessarily associated with hurricanes or tropical storms. This type of inland flooding typically occurs as a result of flash flooding from heavy rainfall 8 to 10 inches over short period of time. These storms have caused total property damage of \$667,000 in Greene County. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table C.6**.

TABLE C.5: SUMMARY OF FLOOD OCCURRENCES IN GREENE COUNTY

LOCATION	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Leakesville</i>	6	0	0	\$50,000	\$0
<i>McLain</i>	0	0	0	\$0	\$0
<i>State Line</i>	0	0	0	\$0	\$0
<i>Unincorporated Area</i>	20	0	0	\$617,000	\$0
Greene County Total:	26	0	0	\$667,000	\$0

Source: NCED/NOAA

TABLE C.6: HISTORICAL FLOOD EVENTS IN GREENE COUNTY

Location	Date	Type	Deaths	Injuries	Property Damage
The Town of Leakesville					
<i>Leakesville</i>	4/5/2008	Flash Flood	0	0	\$0
<i>Leakesville</i>	3/27/2009	Flash Flood	0	0	\$0
<i>Leakesville</i>	5/4/2009	Flash Flood	0	0	\$0
<i>Leakesville</i>	2/4/2010	Flash Flood	0	0	\$0
<i>Leakesville</i>	8/29/2012	Flash Flood	0	0	\$50,000
<i>Leakesville</i>	4/14/2018	Flash Flood	0	0	\$0
Town of McLain					
<i>McLain</i>	--	--	--	--	--
Town of State Line					
<i>State Line</i>	--	--	--	--	--
County Wide and Unincorporated Area in Greene County					
<i>Sand Hill</i>	6/28/2000	Flash Flood	0	0	\$0
<i>County Wide</i>	3/3/2001	Flash Flood	0	0	\$40,000
<i>Southern Greene County</i>	10/28/2002	Flash Flood	0	0	\$0
<i>Southcentral Greene County</i>	10/28/2002	Flash Flood	0	0	\$0
<i>County Wide</i>	5/17/2003	Flash Flood	0	0	\$0
<i>County Wide</i>	7/1/2003	Flash Flood	0	0	\$0
<i>County Wide</i>	3/31/2005	Flash Flood	0	0	\$0
<i>East portion of Greene County</i>	7/6/2005	Flash Flood	0	0	\$0
<i>County Wide</i>	8/29/2005	Flash Flood	0	0	\$0
<i>Sand Hill</i>	10/22/2007	Flash Flood	0	0	\$0
<i>Piave</i>	4/18/2008	Flash Flood	0	0	\$0
<i>Pisgah</i>	9/1/2008	Flash Flood	0	0	\$2,000
<i>Neely</i>	2/4/2010	Flash Flood	0	0	\$0
<i>Piave</i>	7/4/2013	Flash Flood	0	0	\$65,000
<i>County Line</i>	2/23/2016	Flood	0	0	\$0
<i>Jonathan</i>	2/23/2016	Flood	0	0	\$0
<i>Sand Hill</i>	12/27/2018	Flash Flood	0	0	\$500,000
<i>Royce</i>	1/23/2019	Flash Flood	0	0	\$0
<i>Neely</i>	1/23/2019	Flash Flood	0	0	\$0
<i>Avera</i>	8/25/2022	Flash Flood	0	0	\$0

Source: NCED/NOAA

TABLE C.7: EXTENT: FLOOD EVENTS IN GREEN COUNTY SINCE THE LAST UPDATE

Greene County: \$0

Location	Date	Loss	Cause	Impact
Royce & Neely	1/23/2019	\$0	Slow moving thunderstorms produced heavy rain which caused flooding in southeast Mississippi.	• Heavy rain caused flooding on Highway 57 south of McLain. • Water over Highway 57 just north of Neely Rd.
Avera	8/25/2022	\$0	A wet pattern continued across the Gulf Coast as additional heavy rain led to numerous flooding reports across southwest Alabama and southeast Mississippi.	Water over the roadway near Indian Hill Road.

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES & REPETITIVE LOSS PROPERTIES

Recently, FEMA issued a directive that prevents FEMA sharing NFIP information such as rep loss or severe rep loss data with state planners. The local Jurisdictions must request the information from FEMA and provide the information to the planners. This information was requested from the local jurisdictions on several occasions. As a result, for continuity of information so that the reader will have an idea of the historical occurrences along with the corresponding damage amounts, the decision was made to leave the existing information in the plan for the jurisdictions that did not provide the information to state planners and to include the information from jurisdictions that provided the requested information to the state planners. As of this update, there are no structures in special flood hazard areas.

Furthermore, since most of the flooding was from flash flooding which occurs quickly, it was difficult to find flood depth information. This remains the best available data.

According to FEMA flood insurance policy records as of March 2016, there have been \$243,475 flood losses reported in Greene County through the National Flood Insurance Program (NFIP). It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Greene County were either uninsured, denied claims payment, or not reported.

By definition, a repetitive loss area is an area containing one or more properties for which two or more National Flood Insurance Program losses of at least \$1,000 each have been paid within any ten-year period since 1978. Greene County has no repetitive loss properties within the jurisdiction and no structures within the flood-prone areas of town. Flooding will continue to affect roadways and bridges in Greene County. Adoption of this Hazard Mitigation Plan will assist the County in mitigating flooding from hurricanes and tropical storms through the adoption of additional standards and other measures specifically designed for this Plan. The County Permitting Official is very conscientious about enforcement of their flood plain management ordinances when it comes to permitting new construction.

The high incidence of flood losses reported for pre-flood insured properties indicates that owners of repetitively flooded properties have relied primarily upon the NFIP or public assistance to cover their repetitive flood losses. Properties located in or near an identified flood hazard area are most likely to flood. The NFIP requires retrofitting to reduce flood damage when cumulative losses exceed 50% of the property's value. This is a difficult rule to enforce because after a major flood or natural disaster, building officials often waive issuing permits in order to assist owners with recovery. Additionally, when flood damage does not include structural damage or damage to electrical or gas services requiring inspection before being restored, owners simply proceed with repairs without contacting local Building Permit Office. The 50% rule is an essential tool in reducing flood losses and while difficult to track, should be a priority issue for the Flood plain Manager after a flood or natural disaster. It is strongly recommended that all jurisdictions require issuance of permits in order to track these cases. Funding is available to local government through the Hazard Mitigation Grant Program to retrofit or acquire repetitively flooded properties. The Community Development Block Grant (CDBG) and Home Investment Partnership Act (HOME) programs also offer grant funding to local jurisdictions on a competitive basis.

The previous Greene County Hazard Mitigation Plan did not contain information on insured flood losses or repetitive loss and severe repetitive loss structures. The information was requested from Greene County, because a jurisdiction is the only one who can request and receive that information from FEMA. At the time of the plan update, this is the only information we have.

PROBABILITY OF FUTURE OCCURRENCES

Due to the unpredictable nature of this hazard, flood events will remain a threat in Greene County, and the probability of future occurrences will remain likely. Historically, most flood losses in Greene County have resulted from storm water flooding. Due to past history, the probability of flooding in Greene County and surrounding jurisdictions is 40% – 50% per year. The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the region. For example, the area near floodplain could have a higher risk of flooding than areas that are not near a floodplain. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

C.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Erosion in Greene County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Greene County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Greene County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources. Greene County has a flood damage prevention ordinance that includes measures to limit erosion, such as restricting uses that result in damaging increases in erosion. Such actions will continue to be implemented as necessary throughout the region.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Greene County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the region. For example, the area near Petal has more floodplain and thus a higher risk of flood than areas near Hattiesburg. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

C.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

According to the Mississippi Division of Environmental Quality, there are no high hazard dams in Greene County. There are no recorded incidents of dam failure or breach of dams in Greene County. Beginning in 2006, owners of lakes are required to have an Emergency Action Plan on file with the State of Mississippi and local emergency management office.

According to a consensus of local government officials and the Regional Hazard Mitigation Council, none of the dams pose a major threat in a breach or failure occurrence.

HISTORICAL OCCURRENCES

There is no record of dam breaches in Greene County, nor are there any high hazard dams. However, several breach scenarios in the county or from cascading effects could cause catastrophic damage.

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

C.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local winter weather. Greene County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of eight recorded winter storm events in Greene County since 2002. These events resulted in almost \$0 in damages. Detailed information on the recorded winter storm events can be found in **Table C.9**.

TABLE C.9: HISTORICAL WINTER STORM IMPACTS IN GREENE COUNTY

Date	Type	Injuries/ Deaths	Property Damage
1/27/2000	Sleet	0/0	\$0
1/1/2001	Winter Storm	0/0	\$0
1/1/2002	Winter Storm	0/0	\$0
12/11/2008	Winter Weather	0/0	\$0
2/12/2010	Winter Storm	0/0	\$0
1/28/2014	Sleet	0/0	\$0
12/8/2017	Heavy Snow	0/0	\$0
1/16/2018	Winter Storm	0/0	\$0
Total:	8	0/0	\$0

There have been a couple of severe winter weather events in Greene County. The text below describes one of the major events and associated impacts on the county. Similar impacts can be expected with severe winter weather.

January 1, 2001—A winter storm produced one-half to one inch snowfall accumulations across portions of Southeast Mississippi, generally along and north of a New Augusta to Leakesville line. No injuries or significant impacts to travel were reported.

January 1, 2002—The Leakesville area received 1 to 2 inches of snow. Although several secondary roads and bridges had to be closed and sanded, very little property damage was reported.

December 11, 2008—A strong upper-level low pressure system moved across the southeast and caused snow showers to develop across southeastern Mississippi. Most areas across northwest Wayne and Perry counties received a dusting of snow. The heaviest snow fell around Lucedale in George County where a half inch to one inch of snow cover was recorded.

February 12, 2010—Snowfall accumulations ranged from a dusting to as much as 4 inches across interior southeast Mississippi. The Sheriff's office reported 3.5 inches of snow in Leakesville.

January 28, 2014—Greene County EMA reports one half to one inch of sleet. Sleet was still falling at 620 pm.

December 8, 2017—Storm total snow amounts of 6 inches in Sand Hill and 2 to 3 inches in Leakesville.

January 16, 2018—Storm total snow amounts of 2 to 2.5 inches in Sand Hill, 2 inches in Neely and 1 to 1.5 inches in Leakesville.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Greene County. According to historical information, the annual probability is possible (between 1 and 10 percent).

C.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Greene County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Greene County had drought levels (including abnormally dry) in the last twenty-four years (2000-2024). **Table C.10** shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE C. 10: HISTORICAL DROUGHT OCCURRENCES IN GREENE COUNTY					
Abnormally Dry	Moderate Drought	Severe Drought	Extreme Drought	Exceptional Drought	
Location	Date	Injuries/ Deaths	Property Damage	Crop Damage	Event/ Severity
Greene County	11/1/2016	0/0	\$0	\$0	D3
Greene County	12/1/2016	0/0	\$0	\$0	D3
Greene County Total:	2	0/0	\$0	\$0	

Source: NCED/NOAA

November to December 2016—A prolonged period of dry weather resulted in worsening drought conditions across southeast Mississippi. By the end of November, the entire region was under Extreme (D3) Drought. The entire area saw rain totals less than 50% of normal for the month, with many areas receiving less than 10% of normal. This lack of rain came on the heels of one of the driest Octobers on record. A prolonged period of dry weather continued through much of December resulting in continued drought conditions across southeast Mississippi. Severe (D2) and Extreme (D3) drought conditions were found across much of the region. A couple of rain events late in the month helped to improve conditions.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

July 2000—July was a hot and dry month in Southeast Mississippi. In Beaumont the temperature was 100 degrees or higher eleven days during the month with the hottest being 105 degrees. In Richton the temperature was 100 degrees or higher three days during the month with the hottest being 102 degrees. In Waynesboro the temperature was 100 degrees or higher four days during the month with the hottest being 103 degrees. In Wiggins the temperature was 100 degrees or higher nine days during the month with 105 degrees being the hottest. In addition to being hot was also a dry month across the area. Most stations ended up with below normal rainfall totals for the month.

July 2008—Heat advisories were issued for a combination of high temperatures and high humidities. Heat index vales were between 110 and 115 degrees. Several public buildings and churches allowed people to come in and cool off during the heat of the day.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Greene County has a probability level of highly likely (100 percent annual probability) for future drought events.

However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude.

Heat Wave

Based on historical occurrence information, it is assumed that all of Greene County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could impact the effects on the counties' crops, economy, and population.

C.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2023, Greene County experiences an average of 34.1 wildfires annually which burn an average of 445.9 acres per year. The data indicates that most of these fires are small, averaging thirteen acres per fire. **Table C.11** provides a summary of wildfire occurrences in Greene County since the last update, and **Table C.12** lists the number of reported wildfire occurrences in the county between the years 2010 and 2023.

TABLE C.11: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2023) *

Greene County	
Average Number of Fires per year	13.8
Average Number of Acres Burned per year	191.2
Average Number of Acres Burned per fire	13.9

TABLE C.12: HISTORICAL WILDFIRE OCCURRENCES IN GREENE COUNTY

Greene County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	10	81	52	41	58	32	62	51	22	7	8	13	15	26
Number of Acres Burned	39	1,183	983	542	678	441	711	531	179	121	81	158	195	401

Source: MS Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Greene County is not usually prone to property damaging wildfires. However, drought-like conditions prompted fire service official to issue frequent bans against burning and become more concerned about encroachment of urban development into forest lands, creating the potential for property damaging wildfires. On occasion wildfires have destroyed structures, usually ly out buildings, but for the most part the fires are contained causing only damage to timber. Of the four jurisdictions, the Unincorporated Greene County is the most prone to damage from wildfires. Greene County has a large amount of timber that creates fuel for wildfires which can endanger residential, commercial buildings and infrastructure. Natural barriers such as streams and drainage basins help to reduce this risk, but about 74% of the land in Greene County is use classified as commercial forestland, creating enhanced risk wildfires to the County. Arson is the most common cause (25%) of wildfires in Greene County. Woodlands fires are controlled by rural volunteer fire departments and/or forestry service personnel. The Cities have less danger of property damaging wildfires. The way the property is landscaped reduces the effects wildfires have on these jurisdictions. Throughout the past years, due to the weather conditions in Greene County have not had any major wildfires. All of the reported fires have been small in nature and are either grass or timber burns that did not result in loss of life or property, burning less than 5 to 10 acres per reported incident. Although the numbers were minor in the area, this is always subject to change with the conditions of the weather. There is a 45% chance of occurrence in any given year.

If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact or wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

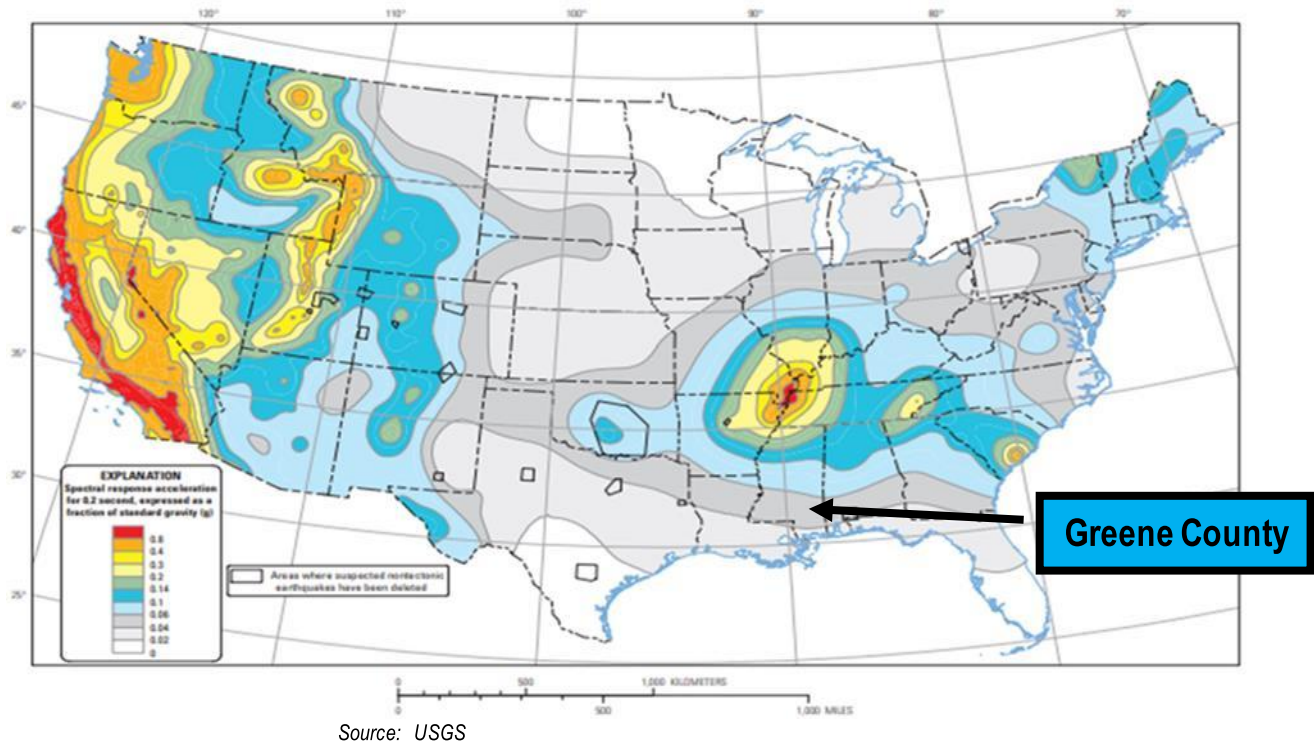
If the predicted increase in heavy rains occur it can also cause flooding and erosion, which can also make the area more susceptible to wildfires

C.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure C.3 shows the intensity level associated with Greene County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, Greene County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE C.3: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS



HISTORICAL OCCURRENCES

No earthquakes are known to have affected Greene County since 1638.

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Greene County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

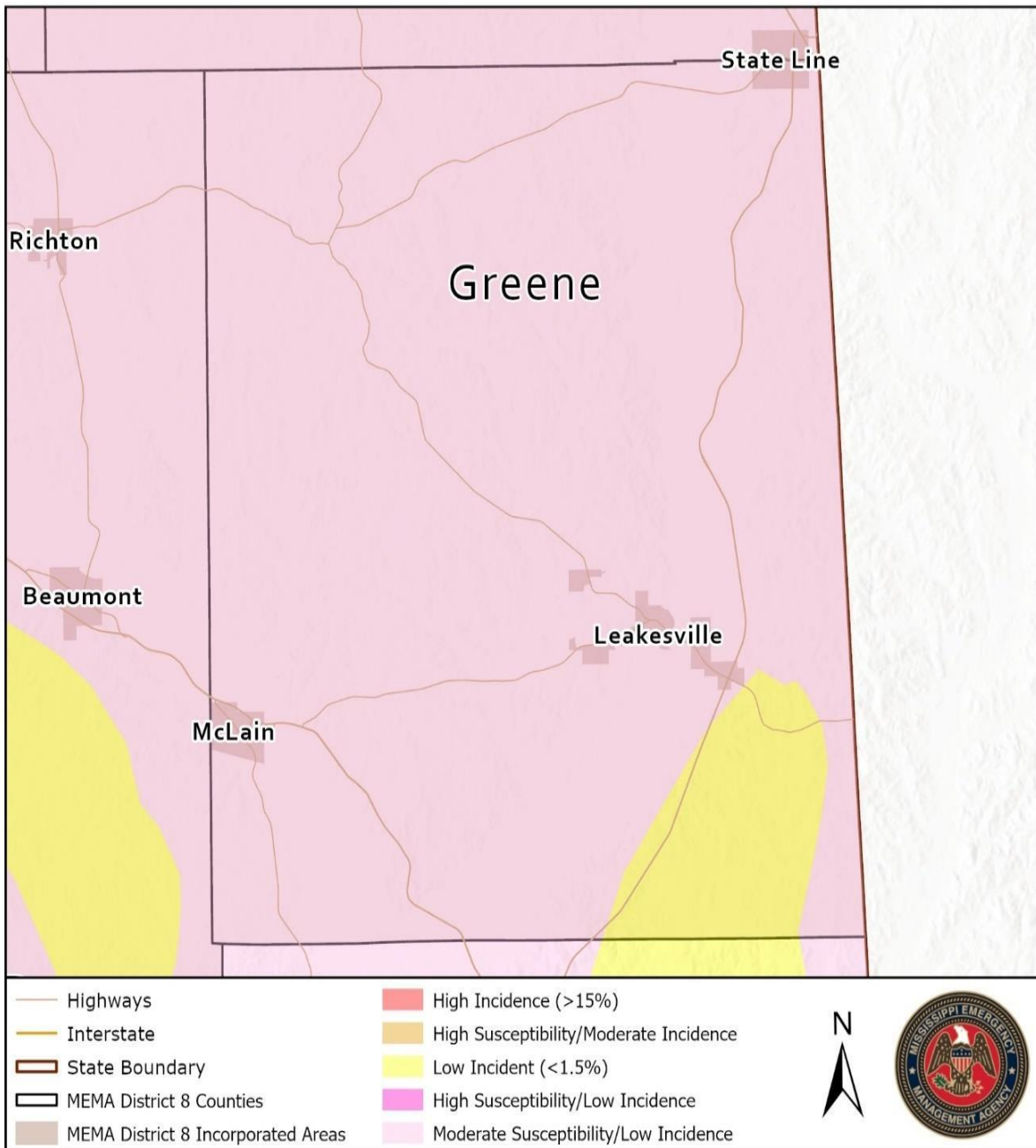
C.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. The most frequent and widespread damaging landslides in the U.S. are induced by prolonged or heavy rainfall. The majority of rainfall-induced landslides are shallow, small, and move quickly. Landslides are possible throughout Greene County.

According to **Figure C.4** below, the most of county falls under a moderate susceptibility & low incidence area (light pink), and the rest is low incident (yellow).

FIGURE C.4: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF GREENE COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Greene County. Landslide events typically occur in isolated areas.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that all areas in Greene County have a low landslide incidence rate (yellow).

However, some areas are reported as having moderate susceptibility (pink) to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Greene County have greater risk than others given factors such as steepness on slope and modification of slopes.

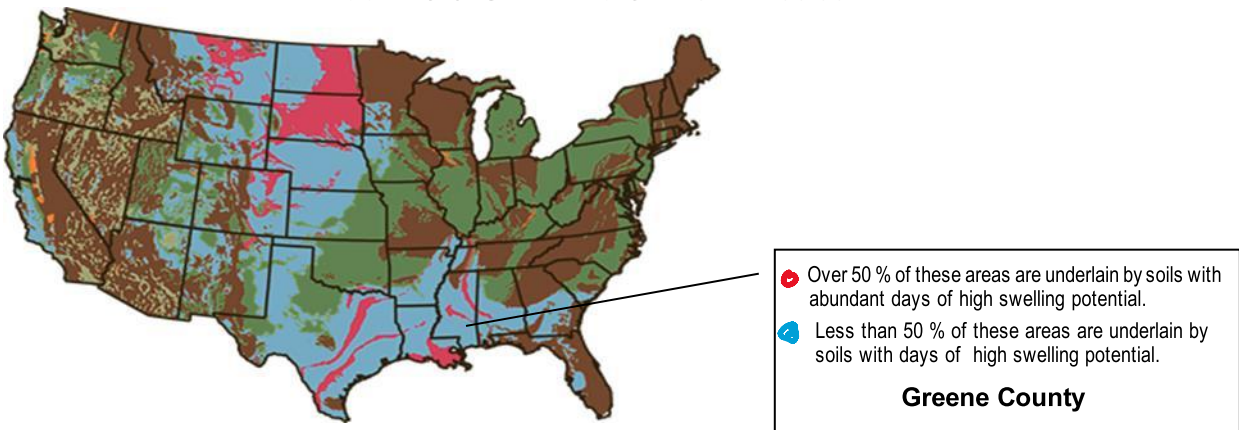
As the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

C.2.9 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Greene County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure C.5**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential.

FIGURE C.5: SWELLING CLAYS IN MISSISSIPPI



Source: USGS

HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Greene County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

C.2.10 Hurricane and Tropical Storm

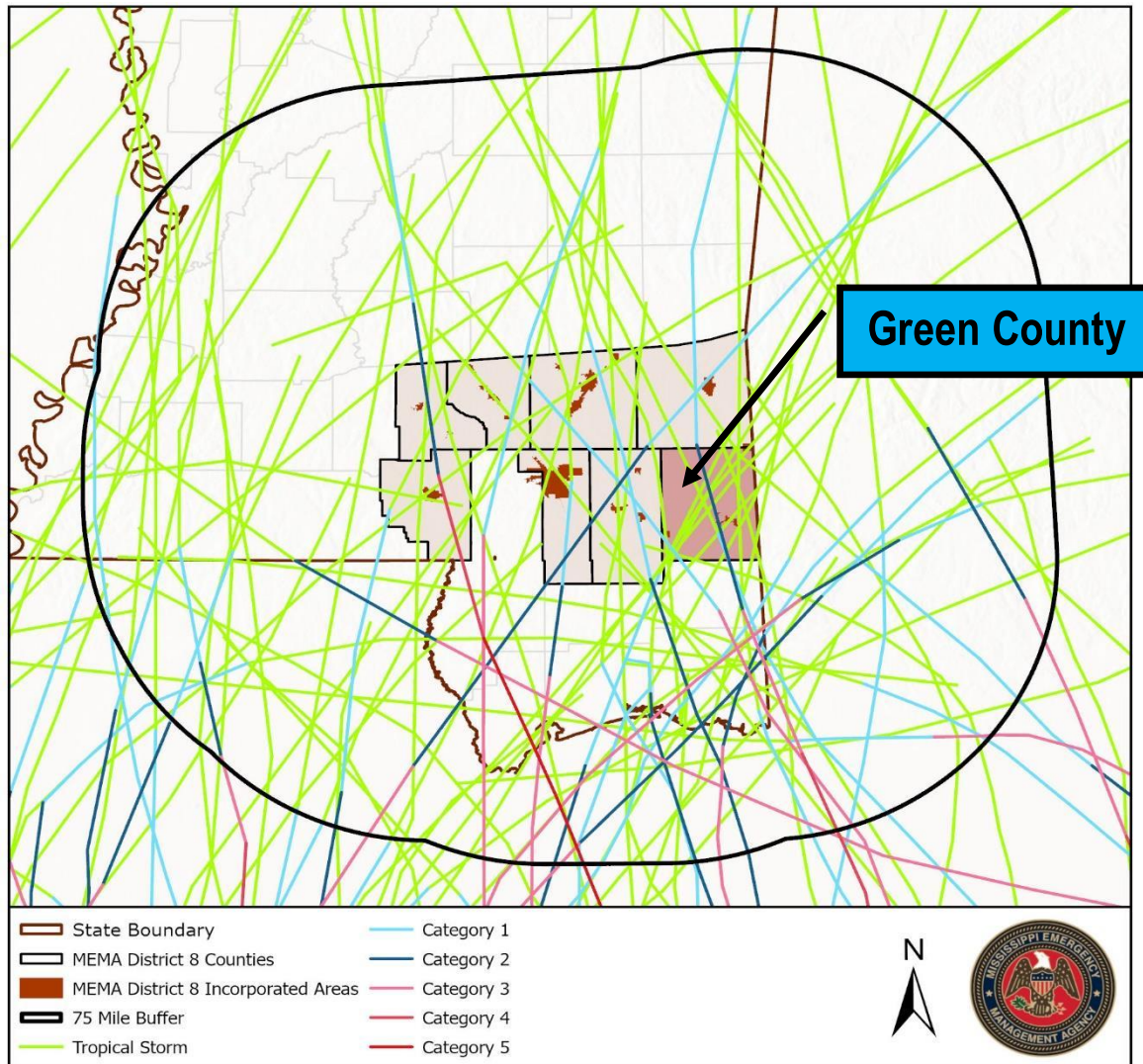
LOCATION AND SPATIAL EXTENT

Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Greene County. All areas in Greene County are equally susceptible to hurricane and tropical storms.

HISTORICAL OCCURRENCES

The National Centers for Environmental Information has reported two new hurricane hazards affecting the area during this planning period.

FIGURE C.6: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF GREENE COUNTY



Greene County and its Municipalities, due to their location and proximity to the Mississippi Gulf Coast, are susceptible to Tropical Storms and Hurricanes. Greene County may not feel the full effects of the Hurricane, however: depending on the strength and landfall location the county could expect to receive strong winds and heavy rains, flooding and wind damage.

Research from the National Hurricane Center says that eighteen (20) Tropical Storms or Hurricanes have affected the Mississippi Gulf Coast since 1954. Local records, since 1998, show that ten (10) storms have affected Greene County with wind damage and/or flooding. Hurricane damage affects all areas of each jurisdiction and is consistent throughout each jurisdiction. NCDC Tropical Storm and Hurricane information is listed below.

Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1979 (Hurricane Fredric), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Dennis), 2005 (Hurricane Katrina), 2012 (Hurricane Isaac), 2017 (Hurricane Nate), 2020 (Hurricane Zeta), and 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial

damage in the area due to high winds and flooding. Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county.

TABLE C.13: HISTORICAL STORM TRACKS WITHIN 75 MILES OF GREENE COUNTY (1850–2023)

Date of Occurrence	Storm Name	Maximum Wind Speed (mph)	Storm Category	Disaster Declaration	Property Damage	Crop Damage
9/4/1969	<i>Hurricane Camille</i>	115	Category 2	Yes, #271	Unknown	Unknown
8/30/1979	<i>Hurricane Fredrick</i>	Unknown	Tropical Storm	Yes, #599	Unknown	Unknown
8/20/1995	<i>Hurricane Erin</i>	Unknown	Tropical Storm	No	\$100,000	Unknown
9/25/1998	<i>Hurricane Georges</i>	Unknown	Tropical Storm	Yes, #1251	\$15,000,000	Unknown
9/16/2004	<i>Hurricane Ivan</i>	95	Category 1	Yes, #1550	Unknown	\$0
7/5/2005	<i>Tropical Storm Cindy</i>	40	Tropical Storm	No	\$50,000	\$0
7/10/2005	<i>Hurricane Dennis</i>	55	Tropical Storm	Yes, #1594	\$50,000	\$0
8/29/2005	<i>Hurricane Katrina</i>	80	Category 1	Yes, #1604	\$30,000,000	\$0
9/1/2008	<i>Hurricane Gustav</i>	25	Depression	No	\$1,000	\$0
8/29/2012	<i>Hurricane Isaac</i>	45	Tropical Storm	Yes, #4081	\$650,000	\$0
10/7/2017	<i>Hurricane Nate</i>	70	Tropical Storm	Yes, #4350	\$25,000	\$0
9/4/2018	<i>Hurricane Gordon</i>	50	Tropical Storm	No	\$0	\$0
10/28/2020	<i>Hurricane Zeda</i>	58	Tropical Storm	Yes, #4576	\$0	\$0
8/30/2021	<i>Hurricane Ida</i>	50	Tropical Storm	Yes, #4626	\$50,000	\$0
9/12/2024	<i>Hurricane Francine</i>	40	Tropical Storm	No	\$0	\$0
Total:	15	--	--	--	\$45,926,000	\$0

Source: National Hurricane Center and NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted the county as found below:

Hurricane Ivan – September 14, 2024—Hurricane force winds, primarily in gusts, occurred over most interior portions of southeast Mississippi during the late evening hours of September 15th, and the very early morning hours of September 16th. Duration of the winds producing hurricane force gusts was around two hours. These strong winds downed some trees across the region, some of which fell onto structures which were damaged as a result. Although Ivan did produce wind damage across southeast Mississippi, this damage was neither as widespread nor as severe as was the wind damage over much of southwest Alabama and the western Florida panhandle.

Tropical Storm Cindy – July 5, 2005—TS Cindy moved across Stone and Greene counties on Wednesday morning July 6. Most of the damage across southeast Mississippi was from fallen trees and from heavy rains that caused street flooding. For the complete narrative on Cindy look under Alabama, Southwest, July 5-6, in this publication.

Hurricane Katrina – August 29, 2005—High winds from the eyewall of Hurricane Katrina blew down numerous trees in Perry and Greene counties as the eye of Katrina moved north. Wind gusts of 70-90 mph were estimated across Perry county and 60-80 mph across Greene county. Several of the trees fell on structures and damaged them.

Hurricane Nate – October 7, 2017—The remnant eastern eyewall of Nate moved across George and Greene Counties between midnight and 3am. Tropical storm force winds, with maximum gusts estimated at 60 to 70 mph, resulted in numerous downed trees and power lines in George County. Several homes reported minor roof and shingle damage. One mobile was destroyed due to a tree falling on it. A total of 7,000 power outages were reported. Further north in Greene and Wayne Counties, scattered downed trees and power lines were reported. The fast movement of Nate resulted in limited, if any, impacts from flooding. 2 to 5 inches of rain was reported across inland southeast Mississippi. One EF-0 tornado was reported in Wayne County.

Tropical Storm Gordon – September 4, 2018—TS Gordon made landfall just west of the Alabama-Mississippi at 10:15 PM CDT on September 4, 2018, with estimated maximum sustained winds of 70 mph. Gordon then tracked northwest into portions of inland southeast Mississippi late on the night of September 4th into the early morning of September 5th. Gordon produced sustained tropical storm force winds Greene and George counties in Mississippi, coastal Alabama, as well as Escambia County in Florida.

Hurricane Zeta – October 28, 2020—The county experienced sustained tropical storm force winds with frequent gusts of 80-100 MPH which resulted in widespread tree and power line damage throughout the county. Power outages were near or at 100%. Numerous homes suffered damage, mainly to roofs. Approximately 30 homes had major damage with 7 destroyed, due primarily to downed trees.

Hurricane Francine – September 12, 2024—Hurricane Francine impacted much of the south-central gulf coast states, making landfall in Louisiana. Tropical storm force winds and gusts extended eastward into Mississippi and Alabama, resulting in some minor damage across the area. Coastal flooding additionally impacted much of Mobile and Baldwin Counties.

In Greene County trees fell on powerlines nearly a mile in the woods off Corbit Road. Photos were relayed on social media.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely. According to the Atlantic Oceanographic and Meteorological Laboratory's Tropical Cyclone Climatology Page, all jurisdictions have a 30 to 40 percent chance to experience the effects of a Tropical Storm or Hurricane in any given year. Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientists and meteorologists predict tropical cyclones to increase in frequency, magnitude, and intensity as the climate continues to change. These increases could be catastrophic to MS Coastal areas and the counties near the coast. Scientists also predict that hurricanes could increase in frequency and strength in the near future due to the effects of Climate Change. This can be seen in the 2023 season with 23 named storms, 11 hurricanes, and 5 major hurricanes. This prediction makes the season the third most active season on record, behind the 2005 season with 28, and the 2020 season with a total of 30. It is expected that an above-average season next season with up to 25 named storms and 4-7 major hurricanes.

C.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Greene County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Greene County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Greene County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Greene County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in nine disaster declarations in Greene County in 1974, 1983, 1990, 2009, 2011, 2013, 2016, 2018, and 2023. According to NCEI, there have been 55 reported thunderstorm and high wind events since 2000 in Greene County. These events caused almost \$600 thousand in damages. **Table C.14** summarizes this information. **Table C.15** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE C.14 SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN GREENE COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
<i>Leakesville</i>	13	0	0	\$60,000	\$0
<i>McLain</i>	1	0	0	\$100,000	\$0
<i>State Line</i>	0	0	0	\$0	\$0
<i>Unincorporated Area</i>	42	2	0	\$437,000	\$0
Greene County Total:	56	2	0	\$597,000	\$0

Source: NCED/NOAA

TABLE C.15: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN GREEN COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Town of Leakesville							
<i>Leakesville</i>	1/4/2000	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Leakesville</i>	1/19/2002	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Leakesville</i>	12/24/2002	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Leakesville</i>	6/3/2003	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Leakesville</i>	10/27/2006	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Leakesville</i>	6/19/2007	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Leakesville</i>	7/24/2015	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Leakesville</i>	1/2/2017	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Leakesville</i>	4/3/2017	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Leakesville</i>	11/1/2018	TSTM Wind	61 kts.	0	0	\$5,000	\$0

Leakesville	6/7/2019	TSTM Wind	52 kts.	0	0	\$0	\$0
Leakesville	4/17/2022	TSTM Wind	60 kts.	0	0	\$0	\$0
Leakesville	4/17/2022	TSTM Wind	61 kts.	0	0	\$0	\$0
Town of McLain							
McLain	4/8/2002	TSTM Wind	65 kts	0	0	\$100,000	\$0
Town of State Line							
State Line	--	--	--	--	--	--	--
Unincorporated Area in Greene County							
Kittrell	7/16/2000	TSTM Wind	55 kts.	0	0	\$5,000	\$0
Neely	7/22/2000	TSTM Wind	55 kts.	0	0	\$5,000	\$0
Rounsaville	3/12/2001	TSTM Wind	70 kts.	0	2	\$50,000	\$0
Sand Hill	7/7/2002	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Sand Hill	7/21/2002	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Kittrell	12/19/2002	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Sand Hill	2/21/2003	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Vernal	6/30/2003	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Pisgah	6/30/2003	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Sand Hill	7/6/2004	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Bothwell	10/27/2006	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Piave	4/14/2007	TSTM Wind	50 kts.	0	0	\$25,000	\$0
Avera	12/20/2007	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Neely	1/31/2008	TSTM Wind	50 kts.	0	0	\$60,000	\$0
Sand Hill	2/12/2008	TSTM Wind	50 kts.	0	0	\$12,000	\$0
Sand Hill	5/3/2009	TSTM Wind	52 kts.	0	0	\$10,000	\$0
Neely	5/21/2010	TSTM Wind	52 kts.	0	0	\$10,000	\$0
Pisgah	3/9/2011	TSTM Wind	70 kts.	0	0	\$20,000	\$0
Jonathan	4/4/2011	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Jonathan	6/11/2011	TSTM Wind	60 kts.	0	0	\$2,000	\$0
Avera	2/24/2012	TSTM Wind	70 kts.	0	0	\$10,000	\$0
Sand Hill	4/28/2014	TSTM Wind	52 kts.	0	0	\$10,000	\$0
Jonathan	4/25/2015	TSTM Wind	52 kts.	0	0	\$10,000	\$0
Vernal	5/20/2015	TSTM Wind	52 kts.	0	0	\$1,000	\$0
Sand Hill	6/21/2015	TSTM Wind	52 kts.	0	0	\$2,000	\$0
Avera	12/28/2015	TSTM Wind	52 kts.	0	0	\$5,000	\$0
Avera	2/15/2016	TSTM Wind	52 kts.	0	0	\$3,000	\$0
Sand Hill	2/23/2016	TSTM Wind	52 kts.	0	0	\$40,000	\$0
County Line	2/23/2016	TSTM Wind	83 kts.	0	0	\$75,000	\$0
Neely	4/3/2017	TSTM Wind	61 kts.	0	0	\$10,000	\$0
Pisgah	4/14/2018	Heavy Rain	--	0	0	\$0	\$0
Sand Hill	4/18/2019	TSTM Wind	52 kts.	0	0	\$2,000	\$0
Jonathan	6/27/2019	TSTM Wind	52 kts.	0	0	\$0	\$0
Bothwell	4/19/2020	TSTM Wind	52 kts.	0	0	\$0	\$0
Jonathan	4/24/2021	TSTM Wind	52 kts.	0	0	\$0	\$0
County Line	2/3/2022	TSTM Wind	52 kts.	0	0	\$0	\$0
Jonathan	4/17/2022	TSTM Wind	61 kts.	0	0	\$0	\$0

Avera	4/17/2022	TSTM Wind	70 kts.	0	0	\$0	\$0
County	6/14/2023	TSTM Wind	50 kts.	0	0	\$0	\$0
Pisgah	8/19/2024	TSTM Wind	54 kts.	0	0	\$0	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 32 recorded hailstorm events have affected Greene County since 2000. **Table C.16** is a summary of the hail events in Greene County. **Table C.17** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$3,000 in property damages. Hail ranged in diameter from 0.75 inches to 2.75 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value. However, NCEI noted minimal monetary damages for this planning period.

Lightning

According to the National Centers for Environmental Information, there have been 2 recorded lightning events in Greene County since 2000. These events resulted in over \$70 Thousand in damages as listed in summary **Table C.16**. However, it is likely that more lightning events have in fact impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported. Detailed information on historical lightning events can be found in **Table C.17**.

TABLE C.16: SUMMARY OF HAIL AND LIGHTNING OCCURRENCES IN GREENE COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
Leakesville	13	0	0	\$50,000	\$0
McLain	2	0	0	\$0	\$0
State Line	0	0	0	\$0	\$0
Unincorporated Area	19	0	0	\$23,000	\$0
Greene County Total:	34	0	0	\$73,000	\$0

Source: NCED/NOAA

TABLE C.17: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN GREENE COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Town of Leakesville							
Leakesville	3/3/2000	Hail	1 In.	0	0	\$0	\$0
Leakesville	4/26/2000	Hail	0.75 In.	0	0	\$0	\$0
Leakesville	4/25/2003	Hail	1 In.	0	0	\$0	\$0
Leakesville	8/23/2004	Lightning	--	0	0	\$50,000	\$0
Leakesville	4/25/2006	Hail	0.88 In.	0	0	\$0	\$0
Leakesville	2/13/2007	Hail	0.75 In.	0	0	\$0	\$0
Leakesville	2/18/2009	Hail	0.88 In.	0	0	\$0	\$0
Leakesville	5/21/2010	Hail	1.75 In.	0	0	\$0	\$0
Leakesville	7/4/2011	Hail	1.25 In.	0	0	\$0	\$0
Leakesville	1/22/2017	Hail	1 In.	0	0	\$0	\$0
Leakesville	6/7/2019	Hail	1 In.	0	0	\$0	\$0
Leakesville	6/7/2019	Hail	1.50 In.	0	0	\$0	\$0
Leakesville	6/17/2023	Hail	1.25 In.	0	0	\$0	\$0

Town of McLain							
<i>McLain</i>	3/17/2016	Hail	1 In.	0	0	\$0	\$0
<i>McLain</i>	6/16/2023	Hail	1 In.	0	0	\$0	\$0
Town of State Line							
<i>State Line</i>	--	--	--	--	--	--	--
Unincorporated Area in Greene County							
<i>Neely</i>	7/7/2002	Lightning	--	0	0	\$20,000	\$0
<i>Kittrell</i>	12/19/2002	Hail	0.75 In.	0	0	\$0	\$0
<i>Leaf</i>	3/9/2003	Hail	0.75 In.	0	0	\$0	\$0
<i>Sand Hill</i>	3/13/2003	Hail	0.75 In.	0	0	\$0	\$0
<i>Kittrell & Leaf</i>	4/25/2003	Hail	0.75 In.	0	0	\$0	\$0
<i>Sand Hill</i>	5/3/2003	Hail	0.88 In.	0	0	\$0	\$0
<i>Leaf</i>	5/3/2003	Hail	1 In.	0	0	\$0	\$0
<i>Jonathan</i>	3/22/2005	Hail	1.75 In.	0	0	\$3,000	\$0
<i>Bothwell</i>	4/22/2005	Hail	0.75 In.	0	0	\$0	\$0
<i>Piave</i>	4/4/2008	Hail	1 In.	0	0	\$0	\$0
<i>Avera</i>	3/8/2011	Hail	1 In.	0	0	\$0	\$0
<i>Avera</i>	2/15/2016	Hail	1 In.	0	0	\$0	\$0
<i>Sand Hill</i>	3/17/2016	Hail	2 In.	0	0	\$0	\$0
<i>Piave</i>	4/15/2021	Hail	1.75 In.	0	0	\$0	\$0
<i>Smithtown</i>	4/16/2022	Hail	1.75 In.	0	0	\$0	\$0
<i>Piave</i>	6/17/2023	Hail	1 In.	0	0	\$0	\$0
<i>Jonathan</i>	6/17/2023	Hail	2.75 In.	0	0	\$0	\$0
<i>Jonathan</i>	6/17/2023	Hail	2 In.	0	0	\$0	\$0
<i>Jonathan</i>	6/17/2023	Hail	1.75 In.	0	0	\$0	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Greene County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there was not a high number of historical lightning events reported in Greene County via NCED data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), Greene County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year.

Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Due to Greene County's and the Municipalities' location in the Gulf Coast Region, thunderstorms are frequent to the area. Thunderstorms often cause damaging wind, heavy rain, and severe lighting. The thunderstorms can also produce tornadoes and hailstorms. There is 100% chance that thunderstorms will continue to occur in the coming years. Local records indicate numerous thunderstorms in Unincorporated Greene County and its jurisdictions since the Greene County Emergency Agency was formed. Typical damage during a windstorm/thunderstorm is down trees on power lines. All jurisdictions have aerial power lines that supply all residences electrical services. Power outages usually last 4-6 hours and poses more of an inconvenience than anything. It is not unusual for there to be structure damage with these types of storms, the damage usually consists of roof damage from the winds and from trees falling onto the homes. This damage is usually attributed to the squall lines associated fronts that move across the area. This type of damage can affect each of the jurisdictions equally and typically does. Greene County and the surround towns average 60 to 70 thunderstorms per year, which is above the national average. Due to the geographical location of Greene County, they will continue to have 60 to 70 thunderstorms in the coming years.

Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county in crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

C.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Greene County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that

are more susceptible to tornado strikes over time. Therefore, it is assumed that Greene County is uniformly exposed to this hazard. A tornado can strike at any time. In Mississippi, tornadoes occur most frequently during the months of February, April and November and in the afternoon hours between 3:00 pm and 7:00 pm. Tornadoes are commonly spawned by hurricanes, tropical storms, and thunderstorms; thus, there is a concurrent risk. Wind speeds in tornadoes range from values below that of hurricane speeds to more than 300 miles per hour. Maximum winds in tornadoes are often confined to extremely small areas, and vary tremendously over very short distances, even within the funnel cloud. During the fifty-eight-year period from January 14, 1950 through November 2024, twenty-four tornadoes were reported in Greene County and were Fujita-Scale-rated by the National Weather Service. The Fujita Tornado Scale (see **Table 8 in Section 5**), which classifies tornadoes into six intensity categories, has become the definitive measurement for estimating wind speeds within tornadoes based upon the damage done to structures. It is used extensively by the National Weather Service in investigating tornadoes and by engineers in correlating damage to building structures and techniques with different wind speeds caused by tornadoes. More advanced technology has made it possible to better inform citizens of approaching storms and to issue advisories that offer as much advance warning as possible. Because Greene County has had little history of tornadoes, and the media has become much more sophisticated in reporting impending events, Greene County's hazard risk from tornadoes is judged to be relatively nominal.

HISTORICAL OCCURRENCES

Tornadoes resulted in eight disaster declarations in Greene County in 1983, 1990, 2009, 2011, 2013, 2017, and 2018. According to the National Centers for Environmental Information, there have been a total of 17 recorded tornado events in Greene County since 2000 (**Table C.18**), resulting in over \$12.6 million in property damages. In addition, 26 injuries and 1 death were reported. The magnitude of these tornadoes ranges from F0 to EF3 in intensity, although an F5 event is possible. Detailed information on historic tornado events can be found in **Table C.19**.

TABLE C.18: SUMMARY OF TORNADO OCCURRENCES IN GREENE COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Leakesville</i>	1	1	25	\$11,100,000	\$0
<i>McLain</i>	2	0	0	\$0	\$0
<i>State Line</i>	0	0	0	\$0	\$0
<i>Unincorporated Area</i>	14	0	1	\$1,540,000	\$0
Greene County Total:	17	1	26	\$12,640,000	\$0

Source: NCED/NOAA

TABLE C.19: HISTORICAL TORNADO IMPACTS IN GREENE COUNTY

Location	Date	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
The Town of Leakesville						
<i>Leakesville</i>	4/15/2011	EF3	1	25	\$11,100,000	\$0
The Town of McLain						
<i>McLain</i>	12/25/2012	EF1	0	0	\$0	\$0
<i>McLain</i>	3/30/2022	EF2	0	0	\$0	\$0
The Town of State Line						
<i>State Line</i>	--	--	--	--	--	--
Unincorporated Area in Greene County						
<i>Avera</i>	3/3//2000	F0	0	0	\$12,000	\$0
<i>Rounsaville</i>	12/19/2002	F0	0	0	\$8,000	\$0
<i>Avera</i>	12/23/2002	F0	0	0	\$8,000	\$0

Neely	4/24/2003	F0	0	0	\$5,000	\$0
Avera	11/24/2004	F0	0	0	\$5,000	\$0
Rounsaville	4/22/2005	F0	0	0	\$25,000	\$0
Avera	11/15/2006	F1	0	0	\$750,000	\$0
Avera	4/4/2011	EF1	0	0	\$500,000	\$0
Kittrell	4/15/2011	EF0	0	0	\$2,000	\$0
Avera	2/23/2016	EF1	0	0	\$125,000	\$0
Kittrell	2/23/2016	EF1	0	0	\$100,000	\$0
Piave	2/10/2020	EF1	0	0	\$0	\$0
Avera	4/17/2022	EF2	0	1	\$0	\$0
County Line	11/30/2022	EF1	0	0	\$0	\$0

Source: NCED/NOAA

November 15, 2006—The tornado first touched down near Avera Baptist Church on Pleasant Valley Road. This was where most of the damage was observed. The front part of the church roof was torn off. The tornado then moved east northeast damaging trees and causing roof damage along Pleasant Valley Road. The tornado crossed State Highway 63 causing roof damage to a few homes. The tornado continued east northeast over open countryside downing trees along its path. The tornado lifted back into the clouds near Indian Hill Road.

April 4, 2011—The tornado damage was found to be along a path extending from approximately 9 miles northwest of Neely, Mississippi to approximately 13 miles south-southwest of State Line Mississippi. The tornado primarily snapped or uprooted thousands of pine trees along a 100-yard-wide path, producing minor to moderate damage to the roofs of several homes and a church. One metal barn was destroyed near Avera as the tornado moved through.

April 15, 2011—The National Weather Service aerial survey revealed a continuous long track tornado from just west of Leakesville, Mississippi to Deer Park, Alabama. The tornado touched down west of Leakesville south of Highway 57. It crossed the highway, strengthened to EF-3 intensity, and then turned east toward the city of Leakesville paralleling Highway 57. The tornado damaged 98 homes: 47 with minor damage, 28 with major damage, and 23 homes completely destroyed. 14 businesses were completely destroyed. One fatality occurred in a destroyed mobile home. There were also 25 injuries in Greene County. In Mississippi, the tornado did an estimated 11.1 million dollars' worth of property damage to homes and businesses. The tornado continued east northeast into extreme southwest Washington County, Alabama.

February 23, 2016—The tornado initially touched down along MS-63 southeast of the community of Avera. A homestead was affected as it moved northeast. At the homestead...Metal roofing material from a barn was lofted into an adjacent tree. A trailer was also overturned...with a motor vehicle moved from its initial position. Some minor structural damage to the barn was also noted. Numerous (mostly) pine trees were either blown down or snapped as the storm headed into a less populated area of the county. The tornado lifted just east-southeast of Avera.

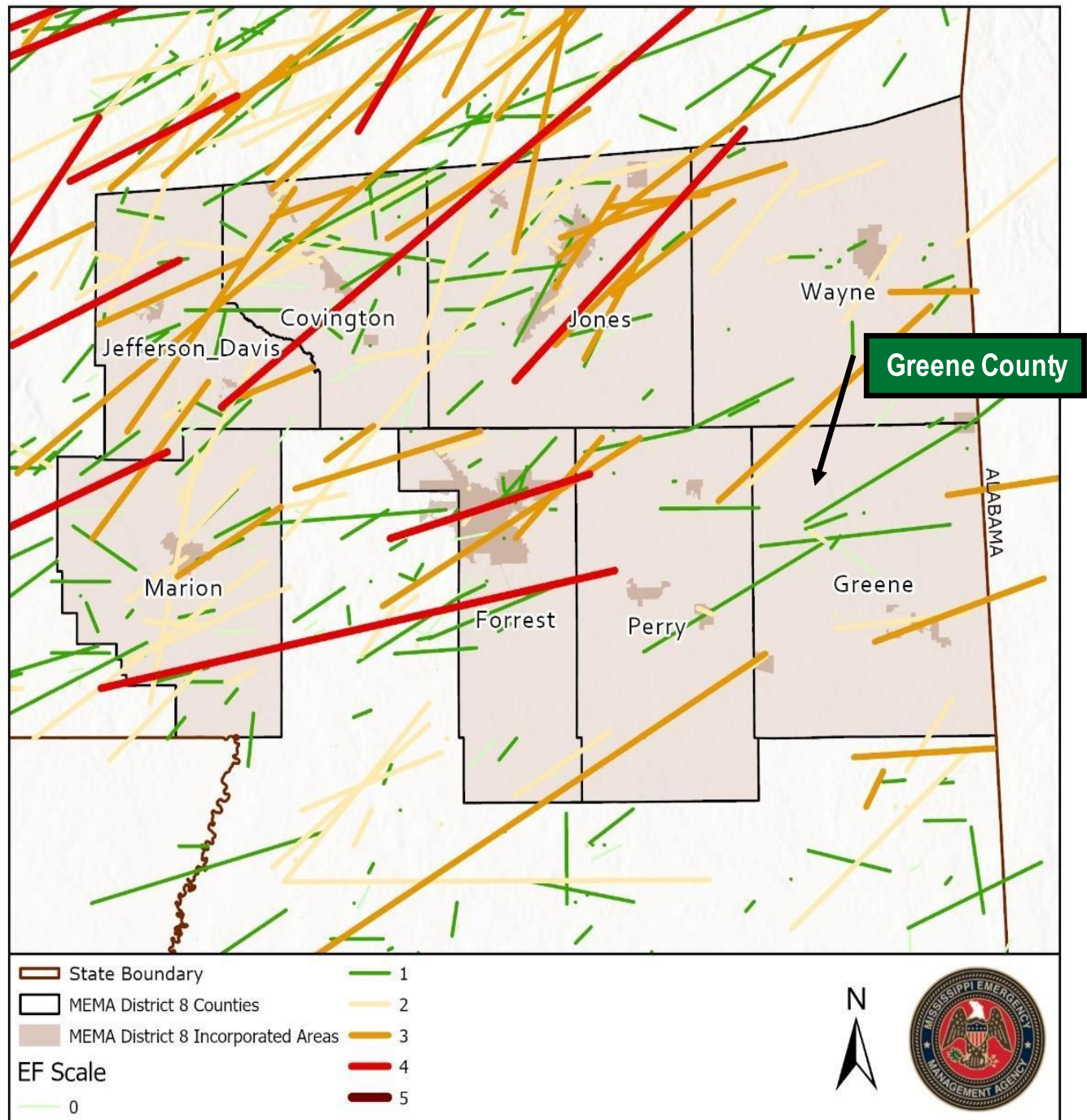
A second brief tornado touchdown was found in vicinity of Shady Hollow Road in northern Greene County. A couple of trees with large branches were sheared in a forested area several dozen yards to the west of the road. The tornado quickly moved across the road...EF1 damage was noted as many pine trees were either uprooted or snapped. Damage in this area coincides with an operator-defined tornado vortex signature.

The storm survey team found a third tornado touchdown in a heavily wooded area near the Greene/Wayne county line. Numerous large diameter (greater than 2 feet) hardwood and pine trees were either snapped near the base of the trunk or uprooted. Significant damage occurred to a log cabin built in 1909 just inside the Wayne County line...with windowpanes blown out and large portions of the roof destroyed. A detached outbuilding...built roughly at the same time...was destroyed by a large tree falling on its north side. The tornado continued affecting mostly wooded areas before lifting just to the northeast of Woulard Bend River Road.

April 17, 2022—A QLCS produced a tornado off of Highway 63 and Lovewell Road south of the town of Avera, initially snapping and uprooting trees. One of the trees fell onto a vehicle near a manufactured home. As the tornado moved southeast it strengthened into an EF-2, snapping and decimating many large hardwood oak trees. The degree of damage to these trees were enough to support a higher end intensity estimate. A large tree limb from one of these oak trees was turned into a projectile and injured a woman when it pierced the side of the aforementioned manufactured home. The tornado proceeded southeast, continuing to destroy hardwood trees in its wake. It passed through an open field before coming upon more trees and

a small, manufactured home. It snapped and uprooted many of these trees (both soft and hardwood), with two falling onto the manufactured home. The tornado then likely weakened to an EF-1 and continued southeastward, almost parallel to Highway 63. It lifted and dissipated just before it reached Avera Road, but not before tossing a large grain holder and tearing off metal portions of a nearby barn roof. Debris from this roofing was seen strewn out over the field.

FIGURE C.6: MAP OF TORNADOS IN GREENE COUNTY



PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Greene County. The probability of future tornado occurrences affecting Greene County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each

community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude. Debris and other objects picked up by the wind could create missiles that are moved with enough force to damage and even penetrate windows, doors, walls, and other parts of buildings. In general, the stronger the wind, the larger and heavier the missiles it can carry and the greater the risk of severe damage. Even small stones, branches and other lighter missiles can easily break doors and windows. Tornadoes are unpredictable and difficult to predict the amount of damage each one could inflict.

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

Since tornadoes are hard to predict, the mitigation efforts have focused on programs to educate the public on early warning, proper sheltering techniques, and both individual and community storm shelters. In the educational programs, the importance of NOAA weather radios and other early warning devices are one of the main topics. Due to the terrain, timber, and separation of residences in Unincorporated Greene County, the uses of sirens as early warning devices are cost prohibitive. Other means of early warning, such as reverse 911, are being investigated to determine the effectiveness and the feasibility.

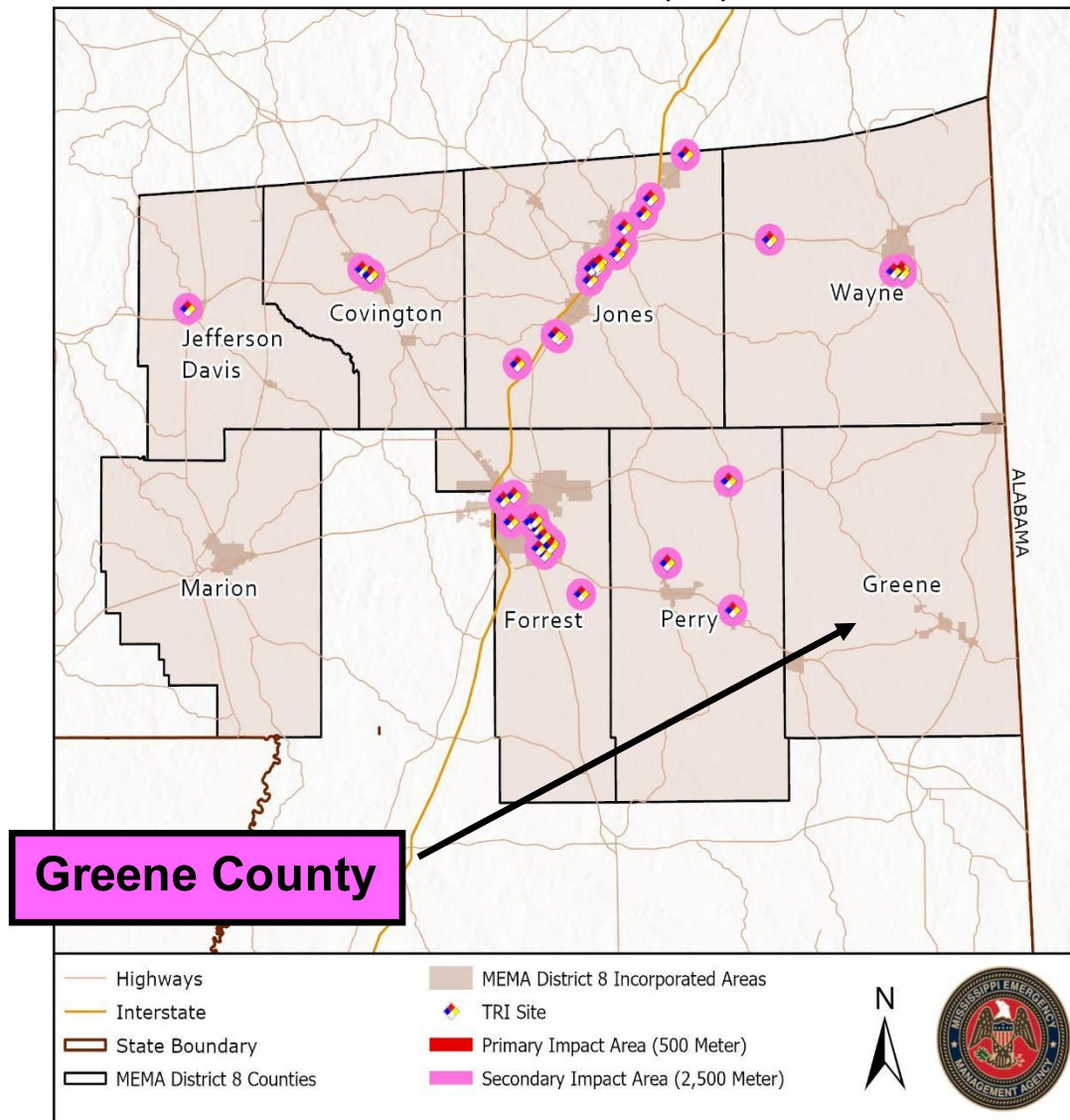
It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

C.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Greene County has no TRI sites as shown in **Figure C.7**.

FIGURE C.7: TOXIC RELEASE INVENTORY (TRI) SITES IN GREENE COUNTY

In addition to “fixed” hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

There are two distinct types of pipelines that are used in the transport of potentially hazardous materials, gas lines and hazardous liquid lines. **Figure C.8** shows the pipelines in Greene County.

Meth Labs

Meth lab incidents have occurred at various times throughout Greene County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

HISTORICAL OCCURRENCES

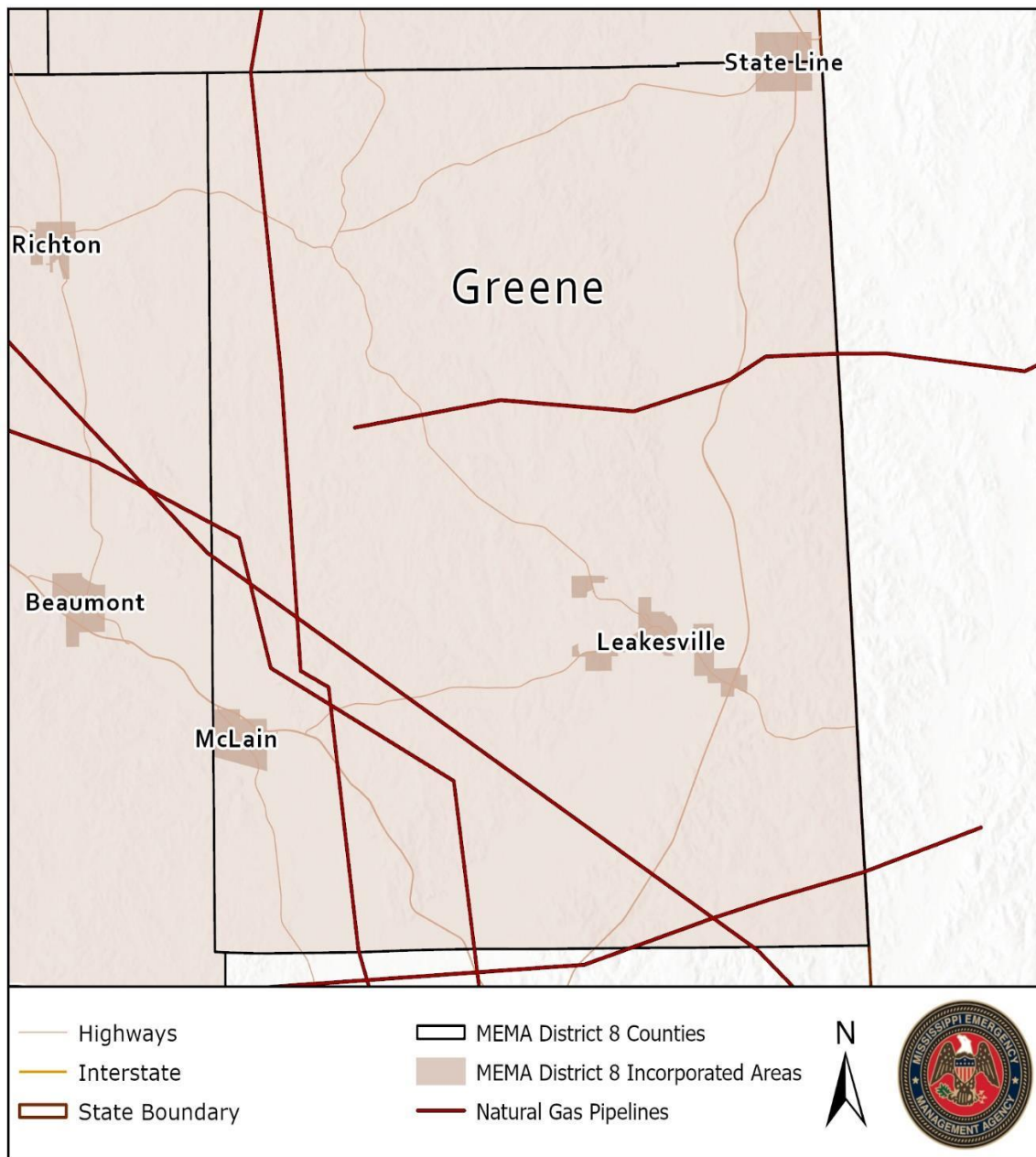
Hazardous Materials

There has been a total of one recorded HAZMAT incident in Greene County since 2003, resulting in \$0 in property damages. **Table C.20** presents detailed information on historic HAZMAT incidents in Greene County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

Pipelines

There have been no pipeline incidents in Greene County.

FIGURE C.8: PIPELINES RUNNING THROUGH GREENE COUNTY



Meth Labs

Meth lab incidents have occurred at various times throughout Greene County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

There are several toxic release inventory sites in Greene County; however, there is no incident on record. There has only been one roadway or rail incident, it is unlikely that a hazardous material incident may occur in the county (less than one percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Although there are several TRI sites and a very limited record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and narrow roadways.

Pipelines

Although there have been no major pipeline incidents.

Meth Labs

Meth lab incidents will likely continue to occur throughout Greene County. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

C.2.14 Cyber Attacks

A **cyber-attack** is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. A **cyberterrorism event** can impact one or more of Greene County's and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The cyberterrorism hazard is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. Targets of cyberterrorism can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in in Greene County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact for Greene County. As such, the county will continue to be compelled to respond to cyberterrorisms in the future. The nature of these attacks is projected to evolve in sophistication over time. Greene County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations.

The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

C.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. Greene County chose to analyze this hazard given the devastating effects of the COVID 19 Virus. Viruses can mutate to reinfect humans, and new viruses can occur that can have huge socioeconomic effects.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be shutdown, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates back to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted to the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused from a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Similar to other pandemics, this pandemic has two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and those with chronic respiratory, cardiac, neurological, or immunity conditions. Worldwide, it is estimated that 43 million to 89 million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Greene County had 3,927 cases of COVID and 61 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick

if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have underlying health conditions.

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Greene County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154,pdf/SNSPlan.pdf>

C.2.15 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its “How-to” guidance document titled Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table C.21 describes the extent of each natural hazard identified for Greene County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE C.21: EXTENT OF GREENE COUNTY HAZARDS

HAZARD DESCRIPTION

Tectonic Hazards

Earthquake

Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Greene County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, USGS data shows Greene County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

Mass-Movements

Landslide

As noted above in the landslide profile, there is no extensive history of landslides in Greene County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout the county. There is also susceptibility throughout the county.

Expansive Soils

As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Greene County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Greene County.

Hydraulic Hazards

Drought

Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Greene County has not received this ranking over the eighteen-year reporting period.

Floods

Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 11.2 percent of the total land area in Greene County. Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at the Goines Draw near Petal in 1974. Water reached a discharge of 610 cubic feet per second and the stream gage height was recorded at 9.10 feet.

Dam Failure

Dam Failure extent is defined using the Mississippi Division of Environmental Quality criteria. There are no dams classified as high hazard.

Meteorological Hazards

Hurricane and Tropical Storms

Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Greene County was a Category 2 storm (Hurricane Camille in 1969) which carried tropical force winds of 115 miles per hour upon arrival in the county.

Thunderstorms/ Hail/ Lightning/ Wind

Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Greene County was last reported on February 23, 2016, at 83 knots (approximately 96 mph). It should be noted that future events may exceed these historical occurrences. Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Greene County was 2.75 inches (last reported on June 17, 2023). It should be noted that future events may exceed this. According to the Vaisala's flash density map, Greene County is located in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.

Winter Storms

The extent of winter storms can be measured by the amount of snowfall received (in inches). February 12, 2010, Snowfall accumulations ranged from a dusting to as much as 4 inches across interior southeast Mississippi. The Sheriff's office reported 3.5 inches of snow in Leakesville. The greatest snowfall reported in Jackson (northwest of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.

Temperature Extremes/ Heat Wave

July 2000—July was a hot and dry month in Southeast Mississippi. In Beaumont the temperature was 100 degrees or higher eleven days during the month with the hottest being 105 degrees. In Richton the temperature was 100 degrees or higher three days during the month with the hottest being 102 degrees. In Waynesboro the temperature was 100 degrees or higher four days during the month with the hottest being 103 degrees. In Wiggins the temperature was 100 degrees or higher nine days during the month with 105 degrees being the hottest. In addition to being hot was also a dry month across the area. Most stations ended up with below normal rainfall totals for the month.

July 2008—Heat advisories were issued for a combination of high temperatures and high humidities. Heat index values were between 110 and 115 degrees. Several public buildings and churches allowed people to come in and cool off during the heat of the day.

Tornado

Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Greene County was an EF3 (reported on April 15, 2011).

Biological Hazards

Pandemic

The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life. Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Greene County had 3,927 cases of COVID and 61 deaths.

Other Natural Hazards

Wildfire

Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by county from 2010-2023. The greatest number of fires to occur in Greene County in any year was 81 in 2011. The greatest number of acres to burn in the county in a single year occurred in 2011 when 1,183 acres were burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.

Erosion

The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Greene County.

Climate Change

The extent climate change will impact Greene County is hard to estimate. It could cause more intense, frequent, and/or magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase so will property damage and possible loss of life.

Other Hazards

Cyber Attack

The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damages depend on the demands of the cyberterrorist.

Hazard Materials Incident

According to USDOT PHMSA, the largest hazardous materials incident reported in the county occurred in 2003, released on the highway. It should be noted that large events are possible.

A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled.

Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

In order to draw some meaningful planning conclusions on hazard risk for Greene County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a "Priority Risk Index" (PRI). More information on the PRI and how it was calculated can be found in *Section 5.16.2*.

Table C.22 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating PRI values and making final determinations for the risk assessment.

TABLE C.22: SUMMARY OF PRI RESULTS FOR GREENE COUNTY

HAZARD	Category/Degree of Risk					
	Probability	Impact	Spatial	Warning Time	Duration	PRI

			Extent			Score
Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Possible	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2

C.2.16 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Greene County, including the PRI results and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories:

High Risk, **Moderate Risk**, and **Low Risk** (Table C.23). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of Greene County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in *Section 6: Vulnerability Assessment* and below in *Section B.3*. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE C.23: CONCLUSIONS ON HAZARD RISK FOR GREENE COUNTY

High Risk	<i>Drought/Heat Wave</i> <i>Hurricane and Tropical Storm</i> <i>Thunderstorm/ High Wind</i> <i>Tornado</i> <i>Flood</i> <i>Lightning</i> <i>Pandemic</i>
Moderate Risk	<i>Climate Change</i> <i>Hail</i> <i>Pipeline Incident</i> <i>Hazardous Materials Incident</i> <i>Wildfire</i> <i>Dam Failure</i> <i>Winter Storm and Freeze</i>
Low Risk	<i>Expansive Soil</i> <i>Landslide</i> <i>Meth Lab Incident</i> <i>Pandemic</i> <i>Erosion</i> <i>Cyber Attack</i>

C.3 GREENE COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Greene County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact and expected amounts of damages caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in *Section 6: Vulnerability Assessment*.

C.3.1 Asset Inventory

Table C.24 lists the estimated number of improved properties and the total value of improvements for Greene County and its participating jurisdictions (study area of vulnerability assessment). This data was obtained from HAZUS since digital parcel data was not available in this county.

TABLE C.24: IMPROVED PROPERTY IN GREENE COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Greene County		

Table C.25 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Greene County. HAZUS was used to obtain the critical facilities for the county and this data was modified to reflect recent changes. In addition, **Figure C.8** shows the locations of essential facilities in Greene County. **Table C.26**, near the end of this section, shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

TABLE C.25: CRITICAL FACILITY INVENTORY IN GREENE COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools
<i>Leakesville</i>	1	2	1	1	2
<i>McLain</i>	1	1	0	0	1
<i>State Line</i>	1	1	0	0	0
<i>Unincorporated Area</i>	7	0	0	0	4
Greene County Total:	10	3	1	1	6

Source: HAZUS-MH 4.2 and Planning Committee

Table C.26 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an "X").

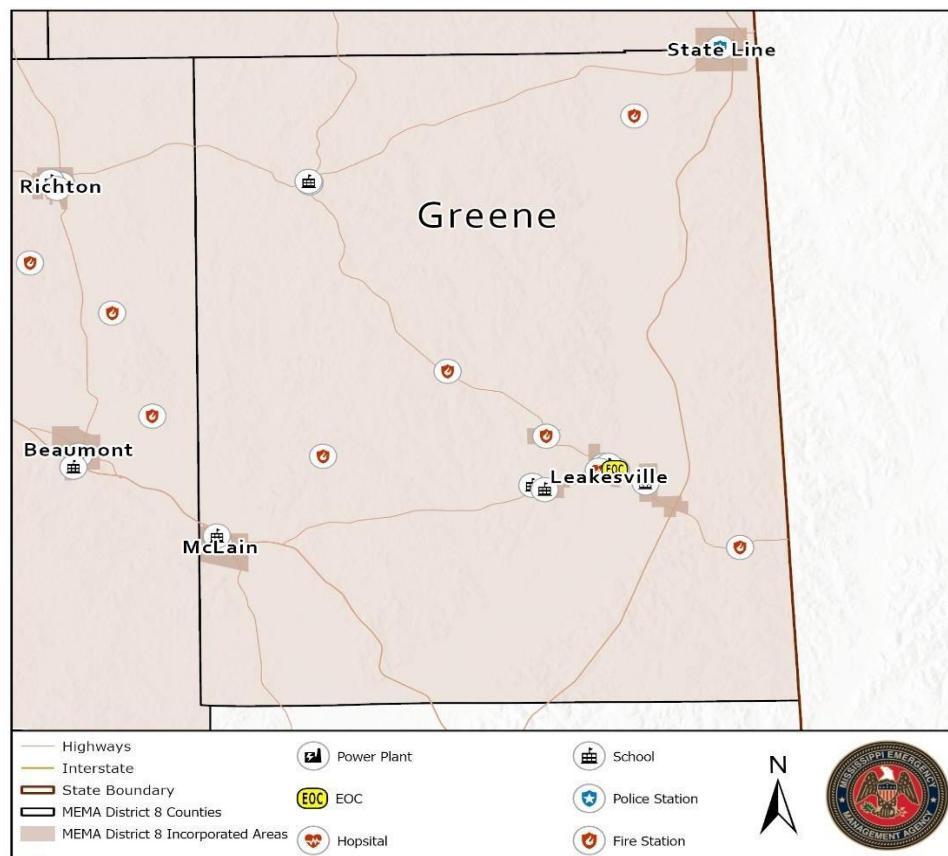
		Other			Atmospheric					Geologic		Hydrologic		
Facility	Facility	WHP	Fixed HAZMAT 500-2500M	Mobile HAZMAT 500-2500M	Drought	Thunder-storm,	Hurricane /Tropical	Tornado	Winter Storm &	Earth-	Land-slide	Dam & Levee	100-Year	500-Year

Name	Type	Hazard	Roads & Rails	Roads & Rails		Lightning, & Hail	Storm		Freeze	quake		Failure	Flood	Flood
Greene County Critical Facilities														
Greene CO Circuit Court	Govt.				X	X	X	X	X	X				
Greene CO Chancery Court	Govt.				X	X	X	X	X	X				
Greene CO Sheriff's Dept.	Police Station				X	X	X	X	X	X				
Greene CO Correctional Facility	Police Facility				X	X	X	X	X	X				
Greene CO Emerg. Manag.	EOC				X	X	X	X	X	X				
Greene CO Beat IV VFD	Fire Station				X	X	X	X	X	X				
Greene CO Justice Court	Govt.				X	X	X	X	X	X				
Greene CO Courthouse	Govt.				X	X	X	X	X	X				
Greene CO Rural Health	Nursing Home				X	X	X	X	X	X				
Greene CO BOS	Govt.				X	X	X	X	X	X				
Greene CO Hospital	Care Facility				X	X	X	X	X	X				
Greene Co. High School	School				X	X	X	X	X	X				
Greene Co. Career & Tech.	School				X	X	X	X	X	X				
Leakesville City Hall	Govt.				X	X	X	X	X	X				
Leakesville Police Dept.	Police Station				X	X	X	X	X	X				
Leakesville VFD	Fire Station				X	X	X	X	X	X				
Leakesville Rehab & Nursing Home	Care Facility				X	X	X	X	X	X				
Leakesville Public Works	Public Works				X	X	X	X	X	X				
Leakesville Comm. Center	Govt.				X	X	X	X	X	X				
Leakesville Elem. School	School				X	X	X	X	X	X				
Leakesville Middle School	School				X	X	X	X	X	X				
Family Medical Clinic	Care Facility				X	X	X	X	X	X				
Leakesville Medical	Care Facility				X	X	X	X	X	X				
Wesley Medical	Care Facility				X	X	X	X	X	X				
McLain City Hall	Govt.				X	X	X	X	X	X				
McLain Police Dept.	Police Station				X	X	X	X	X	X				
McLain Public Works	Public Works				X	X	X	X	X	X				
McLain VFD	Fire Station				X	X	X	X	X	X				
McLain JR. HS Shelter	School/ Shelter				X	X	X	X	X	X				
		Other			Atmospheric					Geologic		Hydrologic		
Facility	Facility	WHP	Fixed HAZMAT 500-2500M	Mobile HAZMAT 500-2500M	Drought	Thunder -storm,	Hurricane /Tropical	Tornado	Winter Storm &	Earth-	Land-slide	Dam & Levee	100- Year	500- Year

Name	Type	Hazard	Roads & Rails	Roads & Rails		Lightning, & Hail	Storm		Freeze	quake		Failure	Flood	Flood
Greene County Critical Facilities Continued														
State Line City Hall	Govt.					X	X	X	X	X	X			
Knobtown VFD	Fire Station					X	X	X	X	X	X			
Turner – Duval Assisted Living	Care Facility					X	X	X	X	X	X			
Sandhill VFD	Fire Station					X	X	X	X	X	X			
Sandhill VFD #2	Fire Station					X	X	X	X	X	X			
Sandhill Jr. High School	School					X	X	X	X	X	X			
Beat 3 County Barn	Govt.					X	X	X	X	X	X			
Beat 4 County Barn	Govt.					X	X	X	X	X	X			
Brookwood Manor	Nursing Home					X	X	X	X	X	X			
Bellsouth Main Switch	Utility					X	X	X	X	X	X			
Cellular South Tower	Utility					X	X	X	X	X	X			
Communication Tower	Utility					X	X	X	X	X	X			
Communication Tower	Utility					X	X	X	X	X	X			
Natural Gas Pumping Station	Utility					X	X	X	X	X	X			
911 Communication Tower	Utility					X	X	X	X	X	X			
Green Co. Beat 3 Water System	Utility					X	X	X	X	X	X			
SREPA Substation	Utility					X	X	X	X	X	X			
SREPA Substation	Utility					X	X	X	X	X	X			
SREPA Substation	Utility					X	X	X	X	X	X			
Singing River Substation	Utility					X	X	X	X	X	X			
SE Greene Co. Water Well	Utility					X	X	X	X	X	X			
SE Greene Col Water Authority	Utility					X	X	X	X	X	X			
SE Supply Pipeline	Utility					X	X	X	X	X	X			
SE Supply Pipeline Header	Utility					X	X	X	X	X	X			
Southern Pine Energy	Utility					X	X	X	X	X	X			
TDS Substation	Utility					X	X	X	X	X	X			
Water Pump	Utility					X	X	X	X	X	X			
Water Tank	Utility					X	X	X	X	X	X			
		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZ MAT 500-2500M Roads &	Mobile HAZ MAT 500-2500M Roads &	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

				Rails	Rails									
Greene County Critical Facilities Continued														
Water Tank & Building	Utility					X	X	X	X	X	X			
Water Tank with chlorinators	Utility					X	X	X	X	X	X			
Water Tower	Utility					X	X	X	X	X	X			
Water Tower with Building	Utility					X	X	X	X	X	X			
Jonathan VFD	Fire Station					X	X	X	X	X	X			
Neely VFD	Fire Station					X	X	X	X	X	X			
Mt. Pisgah VFD	Fire Station					X	X	X	X	X	X			
Pine Belt Mental Health	Care Facility					X	X	X	X	X	X			
State Line Police Dept.	Police Station					X	X	X	X	X	X			
State Line Public Works	Public Works					X	X	X	X	X	X			
State Line VFD	Fire Station					X	X	X	X	X	X			
State Line Medical	Care Facility					X	X	X	X	X	X			

FIGURE C.8: CRITICAL FACILITY LOCATIONS IN JEFFERSON DAVIS COUNTY



C.3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Greene County that are potentially at risk to these hazards.

Table C.27 lists the population by jurisdiction according to U.S. Census 2010 and 2020 population. The results are presented as county-wide and city estimates. The total estimated population in Greene County according to the 2023 Census data is 13,601 persons. Due to the overall decrease in population, there is a chance the population vulnerability could decrease with the exception of Leakesville. Leakesville had a significant increase of 320% which will likely cause an increase in population vulnerability. Additional population estimates are presented above in C.1.

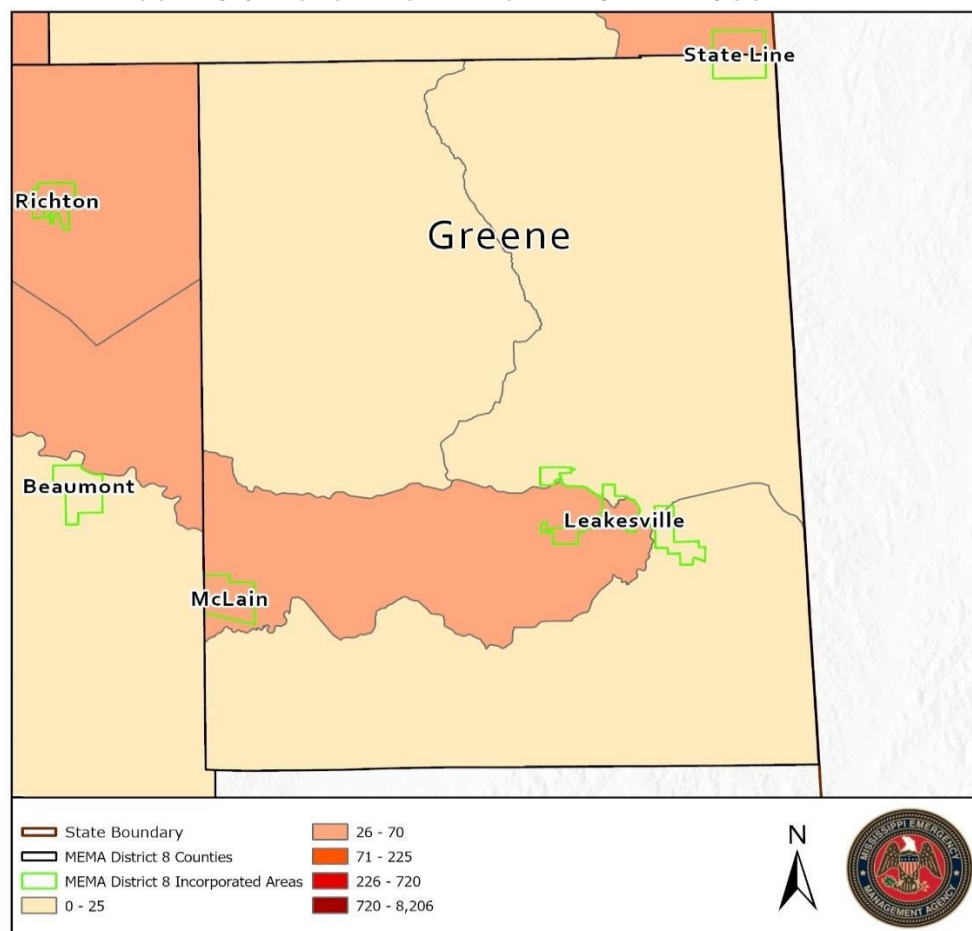
TABLE C.27 TOTAL POPULATION IN GREENE COUNTY

Jurisdiction	2010 Census	2020 Census
Greene County Total:	14,400	13,530
<i>Leakesville</i>	898	3,775
<i>McLain</i>	441	313
<i>State Line</i>	565	452
<i>Unincorporated Area</i>	12,496	8,990

Source: US Census Bureau

In addition, **Figure C.9** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020. This information has not changed since the last plan update.

FIGURE C.9: POPULATION DENSITY IN GREENE COUNTY



C.3.3 Vulnerability Assessment Results

As noted in *Section 6: Vulnerability Assessment*, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Greene County, are presented here. All other

hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table C.22**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

FLOOD

Historical evidence indicates that Greene County is susceptible to flood events. A total of 26 flood events have been reported by the National Centers for Environmental Information resulting in \$667 thousand in damages.

Since digital parcel data was not available, an analysis of improved property was not completed as it was determined that an analysis using the inventory from HAZUS would have been inaccurate and the results would not have been useful.

Social Vulnerability

Since 2020 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data.

Critical Facilities

The critical facility analysis revealed that there are 15 critical facilities located in the Greene County 1.0-percent annual chance floodplain, valued at over \$10.8M. There are seven critical facilities located in the Greene County 0.2-percent annual chance floodplain, valued at \$5.6M. A list of specific critical facilities and their associated risk can be found in **Table C.26**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Greene County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

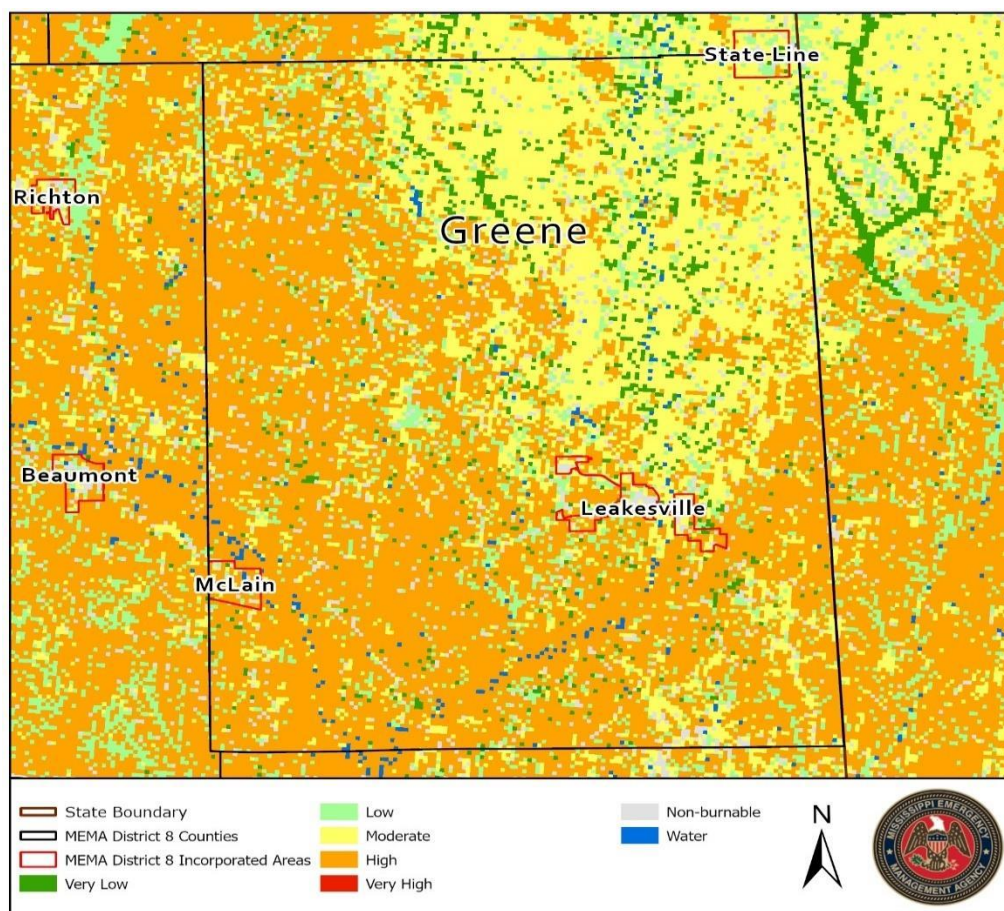
WILDFIRE

Although historical evidence indicates that Greene County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential (WHP) data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure C.10 shows the wildfire hazard potential for Greene County. Most of the planning areas falls within the low to high category.

FIGURE C.10: WILDFIRE RISK AREAS IN GREENE COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there are 18 critical facilities located in an area considered low risk valued at over \$12.7M. There are 25 critical facilities located in an area considered moderate risk valued at \$27.4M. There are 53 structures located in an area considered high risk, valued at over \$124.7M. It should be noted, however, that several factors could impact the spread of a wildfire putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table C.26**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Greene County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 32 critical facilities identified for Greene County, valued at over \$336M. All are vulnerable to the earthquake hazard.

In conclusion, an earthquake has the potential to impact all existing and future buildings, facilities, and populations in Greene County. The HAZUS scenario indicates that minimal damage is expected from an earthquake occurrence. While Greene County may not experience a large earthquake (there are none on record), localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table C.26**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Greene County has an elevated risk to the hurricane and tropical storm hazard. Several tracks have come near or traversed through the county, as shown and discussed in *Section C.2.10*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There is an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amount of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of 2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Greene County, all critical facilities are considered to be at risk. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. There are 32 critical facilities identified for Greene County, valued at \$336M. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation action for especially vulnerable and/or critical facilities to mitigation against the effects of the hurricane hazard. A list of specific critical facilities can be found in **Table C.26** at the end of this section.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in Greene County. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

HAZARDOUS MATERIALS INCIDENT

Although there are no existing Toxic Release Inventory sites in Greene County, it is susceptible to hazardous materials events due to highways, railroads, and/or pipelines. Although there are few reports of damage, but there is a possibility they can happen.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS intersection analysis was used for fixed and mobile are as and parcels. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Greene County, along with buffers, were used for analysis as shown in **Figure C.11**. There are No TRI sites located in Greene County. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis, see **Figure C.12**.

FIGURE C.11: TRI SITES WITH BUFFERS IN GREENE COUNTY

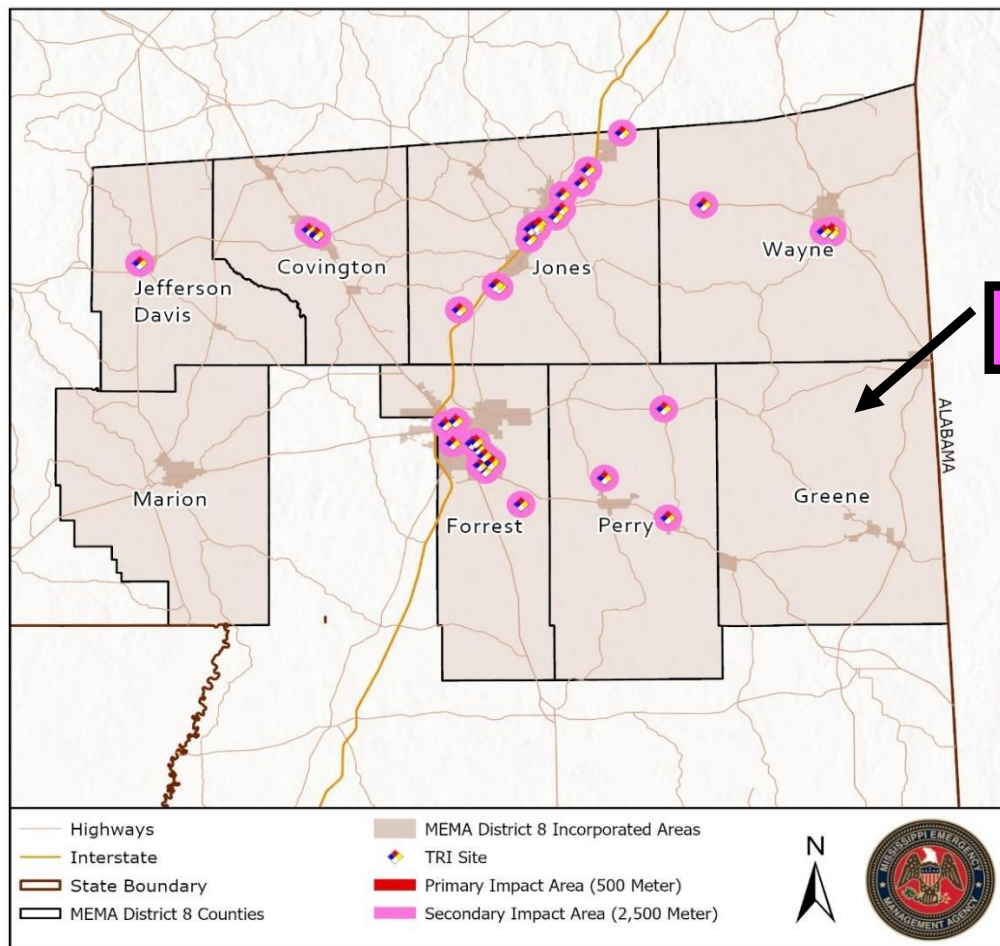
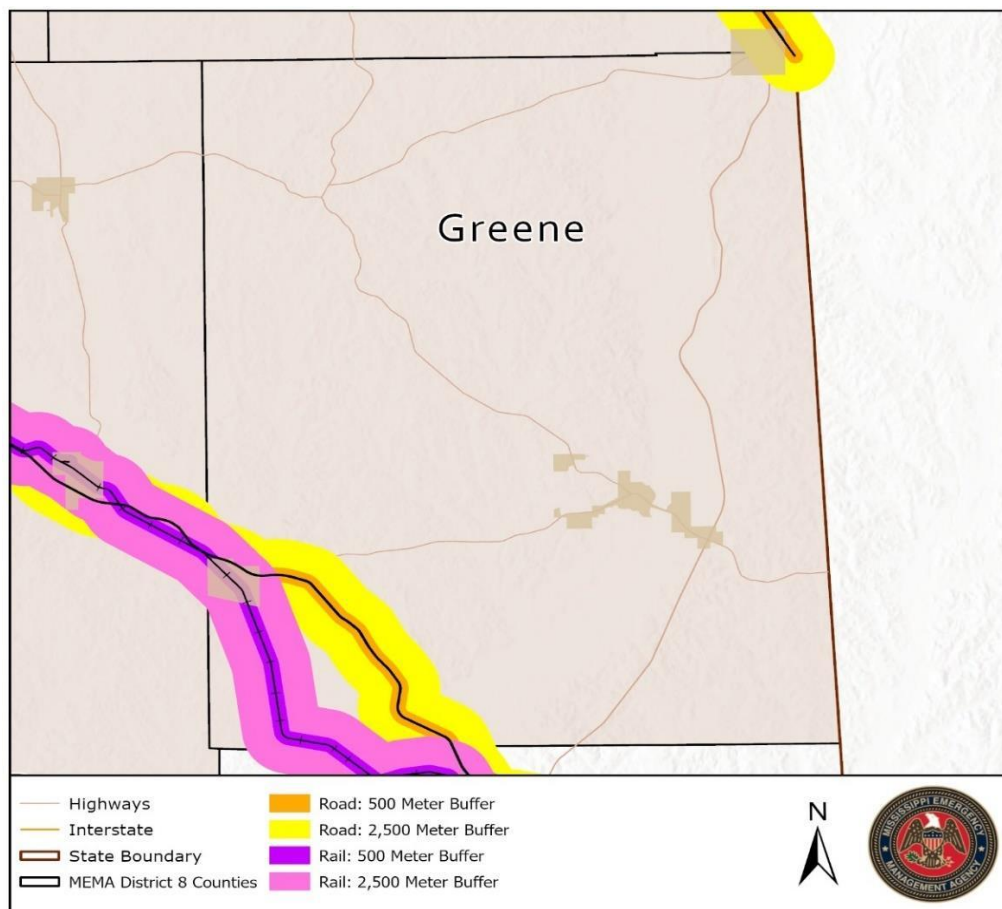


FIGURE C.12: MOBILE HAZMAT BUFFERS IN GREENE COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden to evacuate population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are 18 critical facilities that would be impacted by only the 500M HAZMAT risk zone, which are valued at over \$59.2M. There are 30 critical facilities that would be impacted by the 2500M HAZMAT risk zone, valued at over \$297.5M. A list of specific critical facilities and their associated risk can be found in **Table C.26**.

Mobile Analysis:

The critical facility analysis for transportation corridors in Greene County revealed that there are 15 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at over \$8M, and there are 8 critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$3M.

Expanding to a 2500M HAZMAT risk zone reveals there are 32 critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable, valued at over \$330M. There are 31 critical facilities located in the railway mobile HAZMAT buffer area that are vulnerable, valued at over \$319M. A list of specific critical facilities and their associated risk can be found in **Table C.26**.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Greene County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

C.4 GREENE COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Greene County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in *Section 7: Capability Assessment*.

C.4.1 Planning and Regulatory Capability

Table C.28 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Greene County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE C.28: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Greene County	Leakesville	McLain	State Line
Hazard Mitigation Plan	✓	✓	✓	✓
Comprehensive Land Use Plan				
Floodplain Management Plan				
Open Space Management Plan				
Stormwater Management Plan/Ordinance				
National Resource Protection Plan				
Flood Response Plan				
Emergency Operations Plan	✓	✓	✓	✓
Continuity of Operations Plan				
Evacuation Plan				
Disaster Recovery Plan				
Capital Improvements Plan		✓		
Economic Development Plan				
Historic Preservation Plan				
Flood Damage Prevention Ordinance	✓	✓	✓	✓
Zoning Ordinance		✓	✓	✓
Subdivision Ordinance				
Unified Development Ordinance				
Post-Disaster Redevelopment Ordinance				
Building Codes		✓	✓	✓
Fire Codes				
National Flood Insurance Program (NFIP)				
National Community Rating System				

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Greene County has previously adopted a hazard mitigation plan. The Town of Leakesville, Town of McLain, and the Town of State Line were also included in this plan.

Emergency Operations Plan

Greene County maintains an emergency operations plan through its Emergency Management Agency. The Town of Leakesville, Town of McLain, and the Town of State Line are each covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Greene County has not adopted a county comprehensive land use plan.

Zoning Ordinance

Greene County does not have a zoning ordinance in place. However, the Town of Leakesville, Town of McLain, and Town of State Line have zoning ordinances that were adopted in 1972 and 1973, respectively.

Subdivision Ordinance

Greene County does not have a subdivision ordinance in place.

Building Codes, Permitting, and Inspections

Greene County has not adopted a building code.

FLOODPLAIN MANAGEMENT

Table C.29 provides NFIP policy and claim information for each participating jurisdiction in Greene County.

TABLE C.29: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
Greene County†	--	--	--	--	--	--
Leakesville	--	--	--	--	--	--
McLain	--	--	--	--	--	--
State Line	--	--	--	--	--	--

†Includes unincorporated areas of county only
(M) – No Elevation Determined, All Zone A, C and X

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Greene County, Town of Leakesville, Town of McLain, and Town of State Line all participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Greene County, the Town of Leakesville, Town of McLain and the Town of State Line are all included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

C.4.2 Administrative and Technical Capability

Table C.30 provides a summary of the capability assessment results for Greene County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE C.30: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Greene County	Leakesville	McLain	State Line
Planners with knowledge of land development/ land management practices				
Engineers of professionals trained in construction practices related to buildings and/or infrastructure				
Planners or engineers with an understanding of natural and/or human-caused hazards.				
Emergency Manager	✓	✓	✓	✓
Floodplain Manager	✓	✓	✓	✓
Land Surveyors				
Scientists familiar with the hazards of the community.				
Staff with education or expertise to assess the community's vulnerability to hazards.				
Personnel skilled in GIS and/or HAZ-US				
Resource development staff or grant writers				

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

C.4.3 Fiscal Capability

Table C.31 provides a summary of the results for Greene County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE C.31: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Greene County	Leakesville	McLain	State Line
Capital Improvement Programing				
Community Development Block Grants (CDBG)				
Special Purchase Taxes (or taxing districts)				
Gas/ Electric Utility Fees				
Water/ Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements				

C.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Greene County is more likely to shift in support of hazard mitigation efforts.

C.5 GREENE COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Greene County to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability assessment and risk assessment. Additional Information can be found in *Section 8: Mitigation Strategy* and *Section 9: Mitigation Action Plan*.

C.5.1 Mitigation Goals

Greene County developed five mitigation goals in coordination with the other participating *MEMA District 8 Region jurisdictions*. The regional mitigation goals are presented in **Table C.32**.

TABLE C.32: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

Goal	
Goal #1	Strategies to reduce death, injury, property damage, infrastructure damage, response costs, and recovery costs.
Goal #2	Enhance preparedness and effective response to technological or transportation hazards.
Goal #3	Enhance and improve the ability to mitigate potential loss of revenue from civil hazards.
Goal #4	Invest in community facilities and infrastructure to ensure the safety of individuals, reduce damage to public buildings, and ensure continuity of emergency services.
Goal # 5	Provide Education about Potential Hazards and Risks; Expand Awareness of Protective Measures That Can Be Taken To Minimize the Potential of Loss of Life and Damage to Property.

C.5.2 Mitigation Action Plan

The mitigation actions proposed by Greene County, the Town of Leakesville, the Town of McLain, and the Town of State Line are listed in the following individual Mitigation Action Plans.

Greene County Mitigation Action Plan

Goal 1: Strategies to reduce death, injury, property damage, infrastructure damage, response costs, and recovery costs.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
1a. Renovate existing public buildings to meet modern standards.								
1a.1	The jurisdictions will work to make existing public buildings resistant to damage from manmade and natural disasters.	All Hazards	Medium	HMGP	TBD	County Engineer	Ongoing	Ongoing
1b. Provide for redundancy in public and infrastructure operations.								
1b.1	The jurisdictions will work to ensure that their public functions and infrastructure will have the capability to be operational in the event of manmade and natural disasters.	All Hazards	High	HMGP, Self-Fund	TBD	EMA Director	Annual Review	Ongoing
1c. Develop strategies and plan to provide for minimization of damage and disturbance.								
1c.1	The jurisdictions will develop strategies, plans, and or ordinances to guide development toward low-risk areas.	All Hazards	High	Self-Fund	TBD	EMA Deputy Director	Annual Review	Ongoing
1d. Purchase equipment that will lower response and recovery cost and accelerate response and recovery time.								
1d.1	The jurisdictions will prioritize and purchase equipment that will provide for an overall benefit to the community. (Important factors are increasing response and recovery time and lowering overall costs.)	HU, TS	High	Self-Fund	Unknown	County, Mayors	Annual Review	Ongoing
1e. Provide stockpiles of essential items.								
1e.1	Establish stockpiles of fuel (gasoline and diesel), N-95 masks, potassium iodine tablets and other commodities that are not readily available and needed during emergencies.	All Hazards	High	Self-Fund	TBD	EMA Director	Ongoing	Completed & Ongoing

Goal 2: Enhance preparedness and effective response to technological or transportation hazards.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
2a. Support planning and coordination among agencies								
2a.1	Host a meeting to review Greene County Comprehensive Emergency Management Plan with requirements of the National Incident Management System (NIMS).	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2a.2	Host a meeting with representatives from each emergency response agency within the County to review Greene County's CEMP, and the individual areas of responsibility, as well as areas for enhanced coordinated response, particularly in areas related to technological/ transportation hazards.	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2b: Provide cross-jurisdictional continuity for the development and maintenance of infrastructure								
2b.1	Address cross-jurisdictional issues related to response, recovery, and mitigation on key projects with overlapping boundaries by exploring opportunities to join with neighboring jurisdictions to resolve common infrastructure issues, particularly involving roadways and drainage systems. (There are several common roadways and waterways that could be addressed collaboratively.)	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds
2b.2	Hazard Mitigation Committee should work together to address common infrastructure and/or natural hazard issues.	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available

								funds
2c: Actively search for and identify funding sources for the enhancement of emergency response abilities of fire and sheriff's departments.								
2c.1	Pursue outside funding sources and opportunities for enhancement of firefighting activities and staff with certifications, equipment/trucks to enhance capabilities, hiring of additional personnel, and advanced training opportunities for police and fire personnel.	All Hazards	Medium to High	Self-Fund, DHS, SAFER Grants, Others	Unknown	County Fire Coordinator & County Sheriff	Ongoing	Completed & Ongoing
Goal 3: Enhance and improve the ability to mitigate potential loss of revenue from civil hazards.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
3a: Provide outreach to businesses in Green County to mitigate loss of revenue.								
3a.1	Encourage businesses to develop business continuity or contingency operating plans. The County can work with the Greene County Chamber of Commerce to develop annual workshops on business continuity planning for small businesses in the County.	All Hazards	High	Self-Fund	Unknown	County and Mayors	Not Completed	Ongoing pending available funds
Goal 4: Invest in community facilities and infrastructure to ensure the safety of individuals, reduce damage to public buildings, and ensure continuity of emergency services.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
4a: Ensure the adequacy of emergency shelters								
4a.1	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters. In the event of disasters, adequate shelter space to ensure health and safety of citizens and visitors as well as a potential influx of coastal evacuees is imperative.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4a.2	The County will explore potential existing sites to use as a special needs shelter, and funding opportunities to appropriately equip and staff a special needs shelter.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4b: Improve disaster communication systems within the County.								
4b.1	The County has identified a need for improved disaster communication systems	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Ongoing	Ongoing
4b.2	Consider generators for local radio station service areas.	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Contingent on funding	Ongoing
4c: Install warning sirens in the County.								
4c.1	The County has identified a need for warning sirens to be placed in several sites to be determined countywide and in all townships.	All Hazards	High	HMGP and Self-Funded	Unknown	EMA Deputy Director	Contingent on funding	Ongoing if funding is available
4d: Ensure that structures are not built in the floodplain.								
4d.1	Strictly enforce the flood damage prevention ordinances. The jurisdictions will continue to enforce the Flood Damage Prevention Ordinances/Flood Plain Ordinances, which provide direction and regulations for structures located in flood hazard areas or flood plains.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
4d.2	Ensure that structures in floodplain areas are elevated	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
	Jurisdictions will revise the ordinances to			HMGP & Self-		Floodplain	Contingent	Ongoing if

4d.3	include the elevation requirement for all new structures.	FL	High	Funded	Unknown	Manager	on funding	funding is available
4e: Consider adoption of subdivision regulations.								
4e.1	Encourage jurisdictions to adopt Subdivision Ordinances as they enforce minimum standards governing streets, utilities and other required improvements. Relevant provisions include minimum specifications for drainage and runoff of storm water; sizes, capacities and design of drainage pipes and culverts; and coordination and approval of street names and numbers. None of the Jurisdictions in Greene County have Subdivision Ordinances.	All Hazards	Medium	Self-Funded	Unknown	County BOS	Not complete due to funding	Ongoing if funding is available
4f: Enhance evacuation through improved traffic flow on evacuation routes.								
4f.1	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans. Collaborating with neighboring jurisdictions can result in improved evacuation options. The maps are made available to the general public at the Emergency Management Office and at each City Hall.	All Hazards	Medium	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
4g: Enhance and maintain storm water controls.								
4g.1	Maintain and upgrade the County's drainage facilities. The County annually maintains drainage canals, ditches, and culverts.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4g.2	Map the easements and rights-of-way of roadways and drainage ways. Develop a map of all publicly owned easements, including maintenance easements along waterways and drainage-ways, and including all rights-of-way and easements along all roadways. This GIS layer will assist the County in planning future roadway expansion and help to prevent obstructions within the floodway.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4h: Ensure continuity in services to critical facilities and infrastructure.								
4h.1	Ensure that new public buildings are designed and built to hurricane resistant building codes.	All Hazards	High	HMGP	Unknown	County Engineer	Ongoing	Ongoing
4i: Ensure secure operation of water wells, water tanks and wastewater treatment facilities.								
4i.1	Elevation of storage tanks and water mains can provide an added level of security to a community's water supply. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4i.2	Add Security Cameras to monitor water wells and water tanks. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4j: Develop a government services continuity plan.								
4j.1	The County and municipal jurisdictions will explore the feasibility of developing an enhanced government continuity plan to ensure that emergency operations can function and that day-today operations can resume as soon as possible after an emergency.	All Hazards	Medium to High	CDBG	Unknown	EMA Deputy Director	Annually	Completed & Ongoing
4k: Encourage participation in the national flood insurance program.								
	Greene County, Leakesville, McLain, and State Line participate in the National Flood	FL	Medium			Floodplain	Not Complete	Ongoing

4k.1	Insurance Program, indicating that they meet minimum eligibility requirements established by the Program.			CDBG	Unknown	Manager	due to funding	
4k.2	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.3	Encourage participation in the Community Rating System of the NFIP.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
Goal 5: Provide Education about Potential Hazards and Risks; Expand Awareness of Protective Measures That Can Be Taken To Minimize the Potential of Loss of Life and Damage to Property.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
5a: Enhance disaster preparedness of county staff and elected officials								
5a.1	Explore continuing education programs/opportunities for staff and elected officials.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5a.2	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5b: Enhance disaster preparedness of citizens and visitors								
5b.1	Provide education and outreach materials to citizens and visitors.	All Hazards	High	Self-Funded	Unknown	County and Red Cross	Annually	Completed & Ongoing
5b.2	Develop an outreach program on family disaster planning.	All Hazards	High	Self-Funded	Unknown	EMA Deputy Director	Annually	Completed & Ongoing
5c: Provide education and outreach to a vulnerable and/or targeted population								
5c.1	Identify high risk areas where hazards are most likely to occur.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete. Due to Funding	Ongoing
5c.2	Establish a notification procedure for populations in high-risk areas.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete due to funding	Ongoing
5d: Provide outreach programs on building requirements, technologies, materials for building more hazard-resistant structures.								
5d.1	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	All Hazards	Medium	EMA Director	Unknown	EMA Director	Not Complete due to funding	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic County EMA = Greene County Emergency Management Agency County BOS = Greene County Board of Supervisors								

Town of Leakesville Mitigation Action Plan

Goal 1: Strategies to reduce death, injury, property damage, infrastructure damage, response costs, and recovery costs.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
1a. Renovate existing public buildings to meet modern standards.								
1a.1	The jurisdictions will work to make existing public buildings resistant to damage from manmade and natural disasters.	All Hazards	Medium	HMGP	TBD	County Engineer	Ongoing	Ongoing
1b. Provide for redundancy in public and infrastructure operations.								
1b.1	The jurisdictions will work to ensure that their public functions and infrastructure will have the capability to be operational in the event of manmade and natural disasters.	All Hazards	High	HMGP, Self-Fund	TBD	EMA Director	Annual Review	Ongoing
1c. Develop strategies and plan to provide for minimization of damage and disturbance.								
1c.1	The jurisdictions will develop strategies, plans, and or ordinances to guide development toward low-risk areas.	All Hazards	High	Self-Fund	TBD	EMA Deputy Director	Annual Review	Ongoing
1d. Purchase equipment that will lower response and recovery cost and accelerate response and recovery time.								
1d.1	The jurisdictions will prioritize and purchase equipment that will provide for an overall benefit to the community. (Important factors are increasing response and recovery time and lowering overall costs.)	HU, TS	High	Self-Fund	Unknown	County, Mayors	Annual Review	Ongoing
1e. Provide stockpiles of essential items.								
1e.1	Establish stockpiles of fuel (gasoline and diesel), N-95 masks, potassium iodine tablets and other commodities that are not readily available and needed during emergencies.	All Hazards	High	Self-Fund	TBD	EMA Director	Ongoing	Completed & Ongoing

Goal 2: Enhance preparedness and effective response to technological or transportation hazards.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
2a. Support planning and coordination among agencies								
2a.1	Host a meeting to review Greene County Comprehensive Emergency Management Plan with requirements of the National Incident Management System (NIMS).	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2a.2	Host a meeting with representatives from each emergency response agency within the County to review Greene County's CEMP, and the individual areas of responsibility, as well as areas for enhanced coordinated response, particularly in areas related to technological/ transportation hazards.	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2b. Provide cross-jurisdictional continuity for the development and maintenance of infrastructure								
2b.1	Address cross-jurisdictional issues related to response, recovery, and mitigation on key projects with overlapping boundaries by exploring opportunities to join with neighboring jurisdictions to resolve common infrastructure issues, particularly involving roadways and drainage systems. (There are several common roadways and waterways that could be addressed collaboratively.)	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds
2b.2	Hazard Mitigation Committee should work together to address common infrastructure	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending

	and/or natural hazard issues.							available funds
2c: Actively search for and identify funding sources for the enhancement of emergency response abilities of fire and sheriff's departments.								
2c.1	Pursue outside funding sources and opportunities for enhancement of firefighting activities and staff with certifications, equipment/trucks to enhance capabilities, hiring of additional personnel, and advanced training opportunities for police and fire personnel.	All Hazards	Medium to High	Self-Fund, DHS, SAFER Grants, Others	Unknown	County Fire Coordinator & County Sheriff	Ongoing	Completed & Ongoing
Goal 3: Enhance and improve the ability to mitigate potential loss of revenue from civil hazards.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
3a: Provide outreach to businesses in Green County to mitigate loss of revenue.								
3a.1	Encourage businesses to develop business continuity or contingency operating plans. The County can work with the Greene County Chamber of Commerce to develop annual workshops on business continuity planning for small businesses in the County.	All Hazards	High	Self-Fund	Unknown	County and Mayors	Not Completed	Ongoing pending available funds
Goal 4: Invest in community facilities and infrastructure to ensure the safety of individuals, reduce damage to public buildings, and ensure continuity of emergency services.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
4a: Ensure the adequacy of emergency shelters								
4a.1	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters. In the event of disasters, adequate shelter space to ensure health and safety of citizens and visitors as well as a potential influx of coastal evacuees is imperative.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4a.2	The County will explore potential existing sites to use as a special needs shelter, and funding opportunities to appropriately equip and staff a special needs shelter,	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4b: Improve disaster communication systems within the County.								
4b.1	The County has identified a need for improved disaster communication systems	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Ongoing	Ongoing
4b.2	Consider generators for local radio station service areas.	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Contingent on funding	Ongoing
4c: Install warning sirens in the County.								
4c.1	The County has identified a need for warning sirens to be placed in several sites to be determined countywide and in all townships.	All Hazards	High	HMGP and Self-Funded	Unknown	EMA Deputy Director	Contingent on funding	Ongoing if funding is available
4d: Ensure that structures are not built in the floodplain.								
4d.1	Strictly enforce the flood damage prevention ordinances. The jurisdictions will continue to enforce the Flood Damage Prevention Ordinances/Flood Plain Ordinances, which provide direction and regulations for structures located in flood hazard areas or flood plains.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
4d.2	Ensure that structures in floodplain areas are elevated	FL	High	HMGP & Self-	Unknown	Floodplain	Contingent on funding	Ongoing if funding

				Funded		Manager		available
4d.3	Jurisdictions will revise the ordinances to include the elevation requirement for all new structures.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
4e: Consider adoption of subdivision regulations.								
4e.1	Encourage jurisdictions to adopt Subdivision Ordinances as they enforce minimum standards governing streets, utilities and other required improvements. Relevant provisions include minimum specifications for drainage and runoff of storm water; sizes, capacities and design of drainage pipes and culverts; and coordination and approval of street names and numbers. None of the Jurisdictions in Greene County have Subdivision Ordinances.	All Hazards	Medium	Self-Funded	Unknown	County BOS	Not complete due to funding	Ongoing if funding is available
4f: Enhance evacuation through improved traffic flow on evacuation routes.								
4f.1	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans. Collaborating with neighboring jurisdictions can result in improved evacuation options. The maps are made available to the general public at the Emergency Management Office and at each City Hall.	All Hazards	Medium	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
4g: Enhance and maintain storm water controls.								
4g.1	Maintain and upgrade the County's drainage facilities. The County annually maintains drainage canals, ditches, and culverts.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4g.2	Map the easements and rights-of-way of roadways and drainage ways. Develop a map of all publicly owned easements, including maintenance easements along waterways and drainage-ways, and including all rights-of-way and easements along all roadways. This GIS layer will assist the County in planning future roadway expansion and help to prevent obstructions within the floodway.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4h: Ensure continuity in services to critical facilities and infrastructure.								
4h.1	Ensure that new public buildings are designed and built to hurricane resistant building codes.	All Hazards	High	HMGP	Unknown	County Engineer	Ongoing	Ongoing
4i: Ensure secure operation of water wells, water tanks and wastewater treatment facilities.								
4i.1	Elevation of storage tanks and water mains can provide an added level of security to a community's water supply. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4i.2	Add Security Cameras to monitor water wells and water tanks. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4j: Develop a government services continuity plan.								
4j.1	The County and municipal jurisdictions will explore the feasibility of developing an enhanced government continuity plan to ensure that emergency operations can function and that day-to-day operations can resume as soon as possible after an emergency.	All Hazards	Medium to High	CDBG	Unknown	EMA Deputy Director	Annually	Completed & Ongoing
4k: Encourage participation in the national flood insurance program.								

4k.1	Greene County, Leakesville, McLain, and State Line participate in the National Flood Insurance Program, indicating that they meet minimum eligibility requirements established by the Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.2	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.3	Encourage participation in the Community Rating System of the NFIP.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing

Goal 5: Provide Education about Potential Hazards and Risks; Expand Awareness of Protective Measures That Can Be Taken to Minimize the Potential of Loss of Life and Damage to Property.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
5a: Enhance disaster preparedness of county staff and elected officials								
5a.1	Explore continuing education programs/opportunities for staff and elected officials.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5a.2	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5b: Enhance disaster preparedness of citizens and visitors								
5b.1	Provide education and outreach materials to citizens and visitors.	All Hazards	High	Self-Funded	Unknown	County and Red Cross	Annually	Completed & Ongoing
5b.2	Develop an outreach program on family disaster planning.	All Hazards	High	Self-Funded	Unknown	EMA Deputy Director	Annually	Completed & Ongoing
5c: Provide education and outreach to a vulnerable and/or targeted population								
5c.1	Identify high risk areas where hazards are most likely to occur.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete Due to Funding	Ongoing
5c.2	Establish a notification procedure for populations in high-risk areas.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete due to funding	Ongoing
5d: Provide outreach programs on building requirements, technologies, materials for building more hazard-resistant structures.								
5d.1	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	All Hazards	Medium	EMA Director	Unknown	EMA Director	Not Complete due to funding	Ongoing

FL = Flood

HU = Hurricane

TS = Tropical Storm

TO = Tornado

TH = Thunderstorm

BH = Biological Hazards

HW = High Winds

TT = Transportation and Technological Hazards

RH = Roadway Hazards

CH = Civil Hazards

P = Pandemic

County EMA = Greene County Emergency Management Agency

County BOS = Greene County Board of Supervisors

Town of McLain Mitigation Action Plan

Goal 1: Strategies to reduce death, injury, property damage, infrastructure damage, response costs, and recovery costs.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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1a. Renovate existing public buildings to meet modern standards.

1a.1	The jurisdictions will work to make existing public buildings resistant to damage from manmade and natural disasters.	All Hazards	Medium	HMGP	TBD	County Engineer	Ongoing	Ongoing
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1b. Provide for redundancy in public and infrastructure operations.

1b.1	The jurisdictions will work to ensure that their public functions and infrastructure will have the capability to be operational in the event of manmade and natural disasters.	All Hazards	High	HMGP, Self-Fund	TBD	EMA Director	Annual Review	Ongoing
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1c. Develop strategies and plan to provide for minimization of damage and disturbance.

1c.1	The jurisdictions will develop strategies, plans, and or ordinances to guide development toward low-risk areas.	All Hazards	High	Self-Fund	TBD	EMA Deputy Director	Annual Review	Ongoing
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1d. Purchase equipment that will lower response and recovery cost and accelerate response and recovery time.

1d.1	The jurisdictions will prioritize and purchase equipment that will provide for an overall benefit to the community. (Important factors are increasing response and recovery time and lowering overall costs.)	HU, TS	High	Self-Fund	Unknown	County, Mayors	Annual Review	Ongoing
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1e. Provide stockpiles of essential items.

1e.1	Establish stockpiles of fuel (gasoline and diesel), N-95 masks, potassium iodine tablets and other commodities that are not readily available and needed during emergencies.	All Hazards	High	Self-Fund	TBD	EMA Director	Ongoing	Completed & Ongoing
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Goal 2: Enhance preparedness and effective response to technological or transportation hazards.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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2a. Support planning and coordination among agencies

2a.1	Host a meeting to review Greene County Comprehensive Emergency Management Plan with requirements of the National Incident Management System (NIMS).	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2a.2	Host a meeting with representatives from each emergency response agency within the County to review Greene County's CEMP, and the individual areas of responsibility, as well as areas for enhanced coordinated response, particularly in areas related to technological/transportation hazards.	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing

2b. Provide cross-jurisdictional continuity for the development and maintenance of infrastructure

2b.1	Address cross-jurisdictional issues related to response, recovery, and mitigation on key projects with overlapping boundaries by exploring opportunities to join with neighboring jurisdictions to resolve common infrastructure issues, particularly involving roadways and drainage systems. (There are several common roadways and waterways that could be addressed collaboratively.)	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds
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2b.2	Hazard Mitigation Committee should work together to address common infrastructure and/or natural hazard issues.	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds
2c: Actively search for and identify funding sources for the enhancement of emergency response abilities of fire and sheriff's departments.								
2c.1	Pursue outside funding sources and opportunities for enhancement of firefighting activities and staff with certifications, equipment/trucks to enhance capabilities, hiring of additional personnel, and advanced training opportunities for police and fire personnel.	All Hazards	Medium to High	Self-Fund, DHS, SAFER Grants, Others	Unknown	County Fire Coordinator & County Sheriff	Ongoing	Completed & Ongoing
Goal 3: Enhance and improve the ability to mitigate potential loss of revenue from civil hazards.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
3a: Provide outreach to businesses in Green County to mitigate loss of revenue.								
3a.1	Encourage businesses to develop business continuity or contingency operating plans. The County can work with the Greene County Chamber of Commerce to develop annual workshops on business continuity planning for small businesses in the County.	All Hazards	High	Self-Fund	Unknown	County and Mayors	Not Completed	Ongoing pending available funds
Goal 4: Invest in community facilities and infrastructure to ensure the safety of individuals, reduce damage to public buildings, and ensure continuity of emergency services.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
4a: Ensure the adequacy of emergency shelters								
4a.1	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters. In the event of disasters, adequate shelter space to ensure health and safety of citizens and visitors as well as a potential influx of coastal evacuees is imperative.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4a.2	The County will explore potential existing sites to use as a special needs shelter, and funding opportunities to appropriately equip and staff a special needs shelter.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4b: Improve disaster communication systems within the County.								
4b.1	The County has identified a need for improved disaster communication systems	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Ongoing	Ongoing
4b.2	Consider generators for local radio station service areas.	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Contingent on funding	Ongoing
4c: Install warning sirens in the County.								
4c.1	The County has identified a need for warning sirens to be placed in several sites to be determined countywide and in all townships.	All Hazards	High	HMGP and Self-Funded	Unknown	EMA Deputy Director	Contingent on funding	Ongoing if funding is available
4d: Ensure that structures are not built in the floodplain.								
4d.1	Strictly enforce the flood damage prevention ordinances. The jurisdictions will continue to enforce the Flood Damage Prevention Ordinances/Flood Plain Ordinances, which provide direction and regulations for structures located in flood hazard areas or flood plains.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available

4d.2	Ensure that structures in floodplain areas are elevated	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding available
4d.3	Jurisdictions will revise the ordinances to include the elevation requirement for all new structures.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
4e: Consider adoption of subdivision regulations.								
4e.1	Encourage jurisdictions to adopt Subdivision Ordinances as they enforce minimum standards governing streets, utilities and other required improvements. Relevant provisions include minimum specifications for drainage and runoff of storm water; sizes, capacities and design of drainage pipes and culverts; and coordination and approval of street names and numbers. None of the Jurisdictions in Greene County have Subdivision Ordinances.	All Hazards	Medium	Self-Funded	Unknown	County BOS	Not complete due to funding	Ongoing if funding is available
4f: Enhance evacuation through improved traffic flow on evacuation routes.								
4f.1	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans. Collaborating with neighboring jurisdictions can result in improved evacuation options. The maps are made available to the general public at the Emergency Management Office and at each City Hall.	All Hazards	Medium	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
4g: Enhance and maintain storm water controls.								
4g.1	Maintain and upgrade the County's drainage facilities. The County annually maintains drainage canals, ditches, and culverts.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4g.2	Map the easements and rights-of-way of roadways and drainage ways. Develop a map of all publicly owned easements, including maintenance easements along waterways and drainage-ways, and including all rights-of-way and easements along all roadways. This GIS layer will assist the County in planning future roadway expansion and help to prevent obstructions within the floodway.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4h: Ensure continuity in services to critical facilities and infrastructure.								
4h.1	Ensure that new public buildings are designed and built to hurricane resistant building codes.	All Hazards	High	HMGP	Unknown	County Engineer	Ongoing	Ongoing
4i: Ensure secure operation of water wells, water tanks and wastewater treatment facilities.								
4i.1	Elevation of storage tanks and water mains can provide an added level of security to a community's water supply. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4i.2	Add Security Cameras to monitor water wells and water tanks. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4j: Develop a government services continuity plan.								
4j.1	The County and municipal jurisdictions will explore the feasibility of developing an enhanced government continuity plan to ensure that emergency operations can function and that day-to-day operations can resume as soon as possible after an emergency.	All Hazards	Medium to High	CDBG	Unknown	EMA Deputy Director	Annually	Completed & Ongoing

4k: Encourage participation in the national flood insurance program.

4k.1	Greene County, Leakesville, McLain, and State Line participate in the National Flood Insurance Program, indicating that they meet minimum eligibility requirements established by the Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.2	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.3	Encourage participation in the Community Rating System of the NFIP.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing

Goal 5: Provide Education about Potential Hazards and Risks; Expand Awareness of Protective Measures That Can Be Taken to Minimize the Potential of Loss of Life and Damage to Property.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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5a: Enhance disaster preparedness of county staff and elected officials

5a.1	Explore continuing education programs/opportunities for staff and elected officials.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5a.2	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing

5b: Enhance disaster preparedness of citizens and visitors

5b.1	Provide education and outreach materials to citizens and visitors.	All Hazards	High	Self-Funded	Unknown	County and Red Cross	Annually	Completed & Ongoing
5b.2	Develop an outreach program on family disaster planning.	All Hazards	High	Self-Funded	Unknown	EMA Deputy Director	Annually	Completed & Ongoing

5c: Provide education and outreach to a vulnerable and/or targeted population

5c.1	Identify high risk areas where hazards are most likely to occur.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete Due to Funding	Ongoing
5c.2	Establish a notification procedure for populations in high-risk areas.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete due to funding	Ongoing

5d: Provide outreach programs on building requirements, technologies, materials for building more hazard-resistant structures.

5d.1	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	All Hazards	Medium	EMA Director	Unknown	EMA Director	Not Complete due to funding	Ongoing
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FL = Flood HU = Hurricane TS = Tropical Storm
 BH = Biological Hazards HW = High Winds
 RH = Roadway Hazards CH = Civil Hazards

County EMA = Greene County Emergency Management Agency

TO = Tornado TH = Thunderstorm
 TT = Transportation and Technological Hazards
 P = Pandemic
 County BOS = Greene County Board of Supervisors

Town of State Line Mitigation Action Plan

Goal 1: Strategies to reduce death, injury, property damage, infrastructure damage, response costs, and recovery costs.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
1a. Renovate existing public buildings to meet modern standards.								
1a.1	The jurisdictions will work to make existing public buildings resistant to damage from manmade and natural disasters.	All Hazards	Medium	HMGP	TBD	County Engineer	Ongoing	Ongoing
1b. Provide for redundancy in public and infrastructure operations.								
1b.1	The jurisdictions will work to ensure that their public functions and infrastructure will have the capability to be operational in the event of manmade and natural disasters.	All Hazards	High	HMGP, Self-Fund	TBD	EMA Director	Annual Review	Ongoing
1c. Develop strategies and plan to provide for minimization of damage and disturbance.								
1c.1	The jurisdictions will develop strategies, plans, and or ordinances to guide development toward low-risk areas.	All Hazards	High	Self-Fund	TBD	EMA Deputy Director	Annual Review	Ongoing
1d. Purchase equipment that will lower response and recovery cost and accelerate response and recovery time.								
1d.1	The jurisdictions will prioritize and purchase equipment that will provide for an overall benefit to the community. (Important factors are increasing response and recovery time and lowering overall costs.)	HU, TS	High	Self-Fund	Unknown	County, Mayors	Annual Review	Ongoing
1e. Provide stockpiles of essential items.								
1e.1	Establish stockpiles of fuel (gasoline and diesel), N-95 masks, potassium iodine tablets and other commodities that are not readily available and needed during emergencies.	All Hazards	High	Self-Fund	TBD	EMA Director	Ongoing	Completed & Ongoing

Goal 2: Enhance preparedness and effective response to technological or transportation hazards.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
2a. Support planning and coordination among agencies								
2a.1	Host a meeting to review Greene County Comprehensive Emergency Management Plan with requirements of the National Incident Management System (NIMS).	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2a.2	Host a meeting with representatives from each emergency response agency within the County to review Greene County's CEMP, and the individual areas of responsibility, as well as areas for enhanced coordinated response, particularly in areas related to technological/ transportation hazards.	All Hazards	Medium	Self-Fund	Low to no cost	EMA Deputy Director	Bi-Annual Review	Complete & Ongoing
2b. Provide cross-jurisdictional continuity for the development and maintenance of infrastructure								
2b.1	Address cross-jurisdictional issues related to response, recovery, and mitigation on key projects with overlapping boundaries by exploring opportunities to join with neighboring jurisdictions to resolve common infrastructure issues, particularly involving roadways and drainage systems. (There are several common roadways and waterways that could be addressed collaboratively.)	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds

2b.2	Hazard Mitigation Committee should work together to address common infrastructure and/or natural hazard issues.	All Hazards	Low to Medium	Self-Fund	Unknown	County BOS	Not completed	Ongoing pending available funds
2c: Actively search for and identify funding sources for the enhancement of emergency response abilities of fire and sheriff's departments.								
2c.1	Pursue outside funding sources and opportunities for enhancement of firefighting activities and staff with certifications, equipment/trucks to enhance capabilities, hiring of additional personnel, and advanced training opportunities for police and fire personnel.	All Hazards	Medium to High	Self-Fund, DHS, SAFER Grants, Others	Unknown	County Fire Coordinator & County Sheriff	Ongoing	Completed & Ongoing
Goal 3: Enhance and improve the ability to mitigate potential loss of revenue from civil hazards.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
3a: Provide outreach to businesses in Green County to mitigate loss of revenue.								
3a.1	Encourage businesses to develop business continuity or contingency operating plans. The County can work with the Greene County Chamber of Commerce to develop annual workshops on business continuity planning for small businesses in the County.	All Hazards	High	Self-Fund	Unknown	County and Mayors	Not Completed	Ongoing pending available funds
Goal 4: Invest in community facilities and infrastructure to ensure the safety of individuals, reduce damage to public buildings, and ensure continuity of emergency services.								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
4a: Ensure the adequacy of emergency shelters								
4a.1	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters. In the event of disasters, adequate shelter space to ensure health and safety of citizens and visitors as well as a potential influx of coastal evacuees is imperative.	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4a.2	The County will explore potential existing sites to use as a special needs shelter, and funding opportunities to appropriately equip and staff a special needs shelter,	HU, TO	High	HMGP	Unknown	EMA Director	Ongoing	Completed & Ongoing
4b: Improve disaster communication systems within the County.								
4b.1	The County has identified a need for improved disaster communication systems	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Ongoing	Ongoing
4b.2	Consider generators for local radio station service areas.	All Hazards	High	HMGP and Self-Fund	Unknown	EMA Director	Contingent on funding	Ongoing
4c: Install warning sirens in the County.								
4c.1	The County has identified a need for warning sirens to be placed in several sites to be determined countywide and in all townships.	All Hazards	High	HMGP and Self-Funded	Unknown	EMA Deputy Director	Contingent on funding	Ongoing if funding is available
4d: Ensure that structures are not built in the floodplain.								
4d.1	Strictly enforce the flood damage prevention ordinances. The jurisdictions will continue to enforce the Flood Damage Prevention Ordinances/Flood Plain Ordinances, which provide direction and regulations for structures located in flood hazard areas or flood plains.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available

4d.2	Ensure that structures in floodplain areas are elevated	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding available
4d.3	Jurisdictions will revise the ordinances to include the elevation requirement for all new structures.	FL	High	HMGP & Self-Funded	Unknown	Floodplain Manager	Contingent on funding	Ongoing if funding is available
4e: Consider adoption of subdivision regulations.								
4e.1	Encourage jurisdictions to adopt Subdivision Ordinances, and enforce minimum standards governing streets, utilities and other required improvements. Relevant provisions include minimum specifications for drainage and runoff of storm water; sizes, capacities, and design of drainage pipes and culverts; and coordination and approval of street names and numbers. None of the Jurisdictions in Greene County have Subdivision Ordinances.	All Hazards	Medium	Self-Funded	Unknown	County BOS	Not complete due to funding	Ongoing if funding is available
4f: Enhance evacuation through improved traffic flow on evacuation routes.								
4f.1	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans. Collaborating with neighboring jurisdictions can result in improved evacuation options. The maps are made available to the general public at the Emergency Management Office and at each City Hall.	All Hazards	Medium	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
4g: Enhance and maintain storm water controls.								
4g.1	Maintain and upgrade the County's drainage facilities. The County annually maintains drainage canals, ditches, and culverts.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4g.2	Map the easements and rights-of-way of roadways and drainage ways. Develop a map of all publicly owned easements, including maintenance easements along waterways and drainage-ways, and including all rights-of-way and easements along all roadways. This GIS layer will assist the County in planning future roadway expansion and help to prevent obstructions within the floodway.	FL, HU, TS	High	Self-Funded	Unknown	Road Manager	Annually	Completed & Ongoing
4h: Ensure continuity in services to critical facilities and infrastructure.								
4h.1	Ensure that new public buildings are designed and built to hurricane resistant building codes.	All Hazards	High	HMGP	Unknown	County Engineer	Ongoing	Ongoing
4i: Ensure secure operation of water wells, water tanks and wastewater treatment facilities.								
4i.1	Elevation of storage tanks and water mains can provide an added level of security to a community's water supply. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4i.2	Add Security Cameras to monitor water wells and water tanks. Security cameras can assist local officials in monitoring water wells and water tanks.	All Hazards	High	HMGP	Unknown	SW Greene Water	Annual Review	Completed & Ongoing
4j: Develop a government services continuity plan.								
4j.1	The County and municipal jurisdictions will explore the feasibility of developing an enhanced government continuity plan to ensure that emergency operations can function and that day-to-day operations can resume as soon as possible after an emergency.	All Hazards	Medium to High	CDBG	Unknown	EMA Deputy Director	Annually	Completed & Ongoing

4k: Encourage participation in the national flood insurance program.

4k.1	Greene County, Leakesville, McLain, and State Line participate in the National Flood Insurance Program, indicating that they meet minimum eligibility requirements established by the Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.2	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing
4k.3	Encourage participation in the Community Rating System of the NFIP.	FL	Medium	CDBG	Unknown	Floodplain Manager	Not Complete due to funding	Ongoing

Goal 5: Provide Education about Potential Hazards and Risks; Expand Awareness of Protective Measures That Can Be Taken to Minimize the Potential of Loss of Life and Damage to Property.

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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5a: Enhance disaster preparedness of county staff and elected officials

5a.1	Explore continuing education programs/opportunities for staff and elected officials.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing
5a.2	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All Hazards	High	Self-Funded	Unknown	EMA Director	Ongoing	Completed & Ongoing

5b: Enhance disaster preparedness of citizens and visitors

5b.1	Provide education and outreach materials to citizens and visitors.	All Hazards	High	Self-Funded	Unknown	County and Red Cross	Annually	Completed & Ongoing
5b.2	Develop an outreach program on family disaster planning.	All Hazards	High	Self-Funded	Unknown	EMA Deputy Director	Annually	Completed & Ongoing

5c: Provide education and outreach to a vulnerable and/or targeted population

5c.1	Identify high risk areas where hazards are most likely to occur.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete due to funding	Ongoing
5c.2	Establish a notification procedure for populations in high-risk areas.	All Hazards	Medium	Self-Funded	Unknown	Fire Council Pres.	Not Complete due to funding	Ongoing

5d: Provide outreach programs on building requirements, technologies, materials for building more hazard-resistant structures.

5d.1	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	All Hazards	Medium	EMA Director	Unknown	EMA Director	Not Complete due to funding	Ongoing
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FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm
 BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards
 RH = Roadway Hazards CH = Civil Hazards P = Pandemic
 County EMA = Greene County Emergency Management Agency County BOS = Greene County Board of Supervisors

Annex D

Jefferson Davis County

This annex includes jurisdiction-specific information for Jefferson Davis County and its participating municipalities. It consists of the following five subsections:

- ★ D.1 Jefferson Davis County Community Profile
- ★ D.2 Jefferson Davis County Risk Assessment
- ★ D.3 Jefferson Davis County Vulnerability Assessment
- ★ D.4 Jefferson Davis County Capability Assessment
- ★ D.5 Jefferson Davis County Mitigation Strategy

D.1 JEFFERSON DAVIS COUNTY COMMUNITY PROFILE

D.1.1 Geography and the Environment

Jefferson Davis County is located in south central Mississippi approximately 2 hours from New Orleans and the Mississippi Gulf Coast. It comprises two towns, the Town of Bassfield and the Town of Prentiss, as well two small unincorporated communities. An orientation map is provided as **Figure D.1**.

The county is a rural area of which 65 percent is characterized as forest land devoted primarily to timber production and recreation hunting. The total area of the county is 409 square miles, less than 1 square mile of which is water area.

In Prentiss, the summers are long, hot, and oppressive; the winters are short and cold; and it is wet and partly cloudy year-round. Over the course of the year, the temperature typically varies from 39°F to 91°F and is rarely below 25°F or above 96°F.

The hot season lasts for 4.5 months, from May to September, with an average daily high temperature above 85°F. The hottest day of the year is July 23, with an average high of 91°F and low of 72°F. The cool season lasts for 4 months, from November to February, with an average daily high temperature below 62°F. The coldest day of the year is January 17, with an average low of 36°F and high of 59°F.

A wet day is one with at least 0.04 inches of liquid or liquid-equivalent precipitation. The chance of wet days in Prentiss varies throughout the year. The wetter season lasts 4 months, from May to August, with a greater than 35% chance of a given day being a wet day. The chance of a wet day peaks at 50% on July 19. The drier season lasts 8 months, from August to May. The smallest chance of a wet day is 21% on October 8. Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 50% on July 19. Rain falls throughout the year in Prentiss. The most rain falls during the 31 days centered around February 14, with an average total accumulation of 5.7 inches. The least rain falls around October 4, with an average total accumulation of 3.1 inches.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	59	63	71	77	83	89	91	91	87	78	69	61
Average Lows	36	39	46	53	61	68	71	70	65	53	44	39

FIGURE D.1: JEFFERSON DAVIS COUNTY ORIENTATION MAP

D.1.2 Population and Demographics

According to the 2020 Census, Jefferson Davis County has a population of 11,321 people. The county has seen almost -9.3% decline between 2010 and 2020, and the population density is 31 people per square mile. The decline continues. Per the Census Reports, in 2023, Jefferson Davis County had a population of 10,969, which is a 3% decrease since 2020. This decrease could lower the vulnerability of the population. The household income is \$36,473, which grew 27 percent. Population counts from the US Census Bureau for 2010 and 2020 for the county and both of the participating jurisdictions are presented in **Table D.1**. Estimates for 2023 are also included.

TABLE D.1: POPULATION COUNTS FOR JEFFERSON DAVIS COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2023 Estimate
Jefferson Davis County	12,487	11,321	-9.3%	10,969
<i>Bassfield</i>	254	192	-24.4%	197
<i>Prentiss</i>	1081	976	-9.7%	Unknown

Source: US Census Bureau

Based on the 2020 Census, the median age of residents of Jefferson Davis County is 41 years. The racial characteristics of the county are presented in **Table D.2** and will remain the same as the census data has not been officially updated. However, according to the estimates provided by the Census Reports, the median age in 2023 was 42. Due to the population decrease, the racial characteristics differ slightly. The population of white persons is 39 percent, and 2 percent is Hispanic or Latino. Blacks make up the majority of the population in the county, accounting for 59 percent of the population.

TABLE D.2: DEMOGRAPHICS OF JEFFERSON DAVIS COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Jefferson Davis County	39%	59%	0.3%	0%	2%
Bassfield	48%	49%	0%	0%	3%
Prentiss	48%	50%	0%	1%	1%

Source: US Census Bureau

TABLE D.3: AVERAGE INCOME AND HEALTH IN JEFFERSON DAVIS COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below The Poverty Level
Jefferson Davis County	21%	13%	\$36,473	23%
Bassfield	20%	11%	\$37,708	36%
Prentiss	31%	12%	\$25,859	34%

Source: US Census Bureau

D.1.3 Housing

According to the 2020 US Census, there are 5,641 housing units in Jefferson Davis County, the majority of which are single family homes or mobile homes. Per 2020, the total number of houses decreased by 4 percent since 2010. However, the median home value is \$87,800, which increased by at least 21 percent. The total population and housing units both show a decline which could lead to a decrease in overall vulnerability-based development. Although the increase of property values could balance out the vulnerability. Housing information for the county and two towns is presented in **Table D.4**.

TABLE D.4: HOUSING CHARACTERISTICS OF JEFFERSON DAVIS COUNTY

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2020)	Median Home Value (2020)
Jefferson Davis County	5,876	\$69,500	5,641	\$87,800
Bassfield	144	\$80,200	103	\$101,600
Prentiss	498	\$69,500	451	\$76,700

Source: US Census Bureau

D.1.4 Infrastructure

TRANSPORTATION

In Jefferson Davis County, State Highway 13 provides access to the north and south. State Highway 42 travels through Bassfield and Prentiss in a northwesterly direction. US Highway 84, which crosses east and west through Prentiss, provides direct access to US Highway 49 and Interstate 59 to the east to the City of Natchez to the west.

Commercial air transportation is available at the Hattiesburg-Laurel Regional Airport, less than an hour's drive from the county. International airports in Jackson, Gulfport, and New Orleans are all also within about a 100-mile radius of Jefferson Davis County.

There is no passenger or freight rail service offered at this time.

UTILITIES

Electrical power in Jefferson Davis County is provided by several electrical power associations, including Mississippi Power Company and Southern Pine Electric.

Water and sewer service is provided to residents of Prentiss from wells and by aerated lagoon. The water system has two elevated storage tanks. The County also has 11 elevated storage tanks and one standpipe water storage tank.

There is no centralized sewage treatment in the County and the two most common types of sewer systems in use are septic tanks and aerobic treatment units.

COMMUNITY FACILITIES

There are a number of buildings and community facilities located throughout Jefferson Davis County. According to the data collected for the vulnerability assessment (*Section 6.4.1*), there are 11 fire stations, 3 police station, and 12 schools located within the county.

There is one hospital located in Jefferson Davis County. Jefferson Davis Community Hospital is a 35-bed medical-surgical hospital located in the Town of Prentiss.

Jefferson Davis County proudly claims to be the “Gateway to the Longleaf Trace,” a 41-mile linear park that offers premier running, biking, hiking, and equestrian trails. The Longleaf Trace is one of the longest “Rails to Trails” conversion in the United States. Another major attraction in the county is Lake Jeff Davis, located three miles east of Prentiss. The 164-acre lake is one of 21 state fishing lakes operated by the MS Department of Wildlife, Fisheries, and Parks. Water skiing is allowed on certain days and times and additional amenities include boat rental, camp sites, restrooms, a covered pavilion, and a picnic area with grills.

D.1.5 Land Use

Many areas of Jefferson Davis County are undeveloped or sparsely developed due to the county’s location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region’s population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

D.1.6 Employment and Industry

According to the Mississippi Employment Security Commission, in 2024, Jefferson Davis County had an average annual employment of 3,830 workers and an average unemployment rate of 3.5 percent. According to the MESC, in 2023, the Health Services and Health Care employed 29.1 percent of the workforce followed by Manufacturing (13.9%) then Retail Trade (13.8%) and Transportation, Warehousing, and Utilities (11.3%). The average annual wage in Jefferson Davis County was \$36,473.

D.2 JEFFERSON DAVIS COUNTY RISK ASSESSMENT

This subsection includes hazard profiles for each of the significant hazards identified in *Section 4: Hazard Identification* as they pertain to Jefferson Davis County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in *Section 5: Hazard Profiles*.

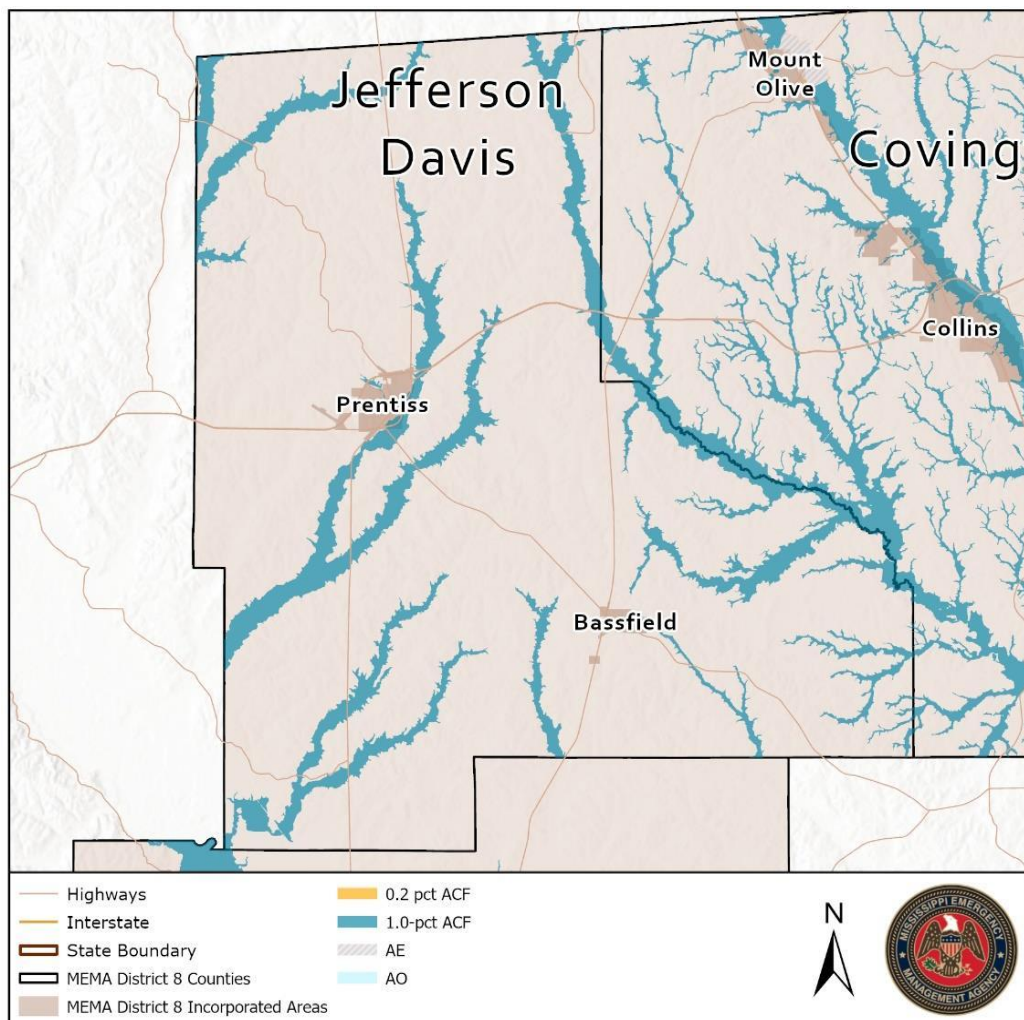
D.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Jefferson Davis County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain. According to GIS analysis, of the 410 square miles that make up Jefferson Davis County, there are 46 square miles of land in zones A and AE (1-percent annual chance floodplain/100-year floodplain) and 0 square miles of land in the 0.2-percent annual chance floodplain (500-year floodplain).

These flood zone values account for 11.2 percent of the total land area in Jefferson Davis County. It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood-related losses often do occur outside of delineated special flood hazard areas.

FIGURE D.2: SPECIAL FLOOD HAZARD AREAS IN JEFFERSON DAVIS COUNTY



HISTORICAL OCCURRENCES

Floods resulted in seven disaster declarations in Jefferson Davis County in 1974, 2003, 2009, 2013, 2016, and twice in 2020. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National Centers for Environmental Information reported a total of 32 events in Jefferson Davis County since 2000. A summary of these events is presented in **Table D.5**. These events accounted for over \$1.38 million in property damage in the county. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table D.6** and **D.7**.

TABLE D.5: SUMMARY OF FLOOD OCCURRENCES IN JEFFERSON DAVIS COUNTY

LOCATION	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Bassfield</i>	8	0	0	\$90,000	\$0
<i>Prentiss</i>	10	0	0	\$589,000	\$0
<i>Unincorporated Area</i>	14	0	0	\$705,000	\$0
Jefferson Davis County Total:	32	0	0	\$1,384,000	\$0

TABLE D.6: HISTORICAL FLOOD EVENTS IN JEFFERSON DAVIS COUNTY

Location	Date	Type	Deaths	Injuries	Property Damage
The Town of Bassfield					
<i>Bassfield</i>	3/27/2009	Flash Flood	0	0	\$40,000
<i>Bassfield</i>	1/20/2010	Flash Flood	0	0	\$3,000
<i>Bassfield</i>	3/9/2011	Flash Flood	0	0	\$15,000
<i>Bassfield</i>	8/30/2012	Flash Flood	0	0	\$10,000
<i>Bassfield</i>	2/21/2013	Flash Flood	0	0	\$0
<i>Bassfield</i>	1/3/2015	Flash Flood	0	0	\$10,000
<i>Bassfield</i>	3/10/2016	Flash Flood	0	0	\$5,000
<i>Bassfield</i>	8/16/2018	Flash Flood	0	0	\$7,000
The Town of Prentiss					
<i>Prentiss</i>	3/2/2001	Flash Flood	0	0	\$0
<i>Prentiss</i>	2/21/2003	Flash Flood	0	0	\$1,000
<i>Prentiss</i>	2/5/2004	Flash Flood	0	0	\$150,000
<i>Prentiss</i>	3/20/2006	Flash Flood	0	0	\$0
<i>Prentiss</i>	4/12/2009	Flash Flood	0	0	\$100,000
<i>Prentiss</i>	8/13/2010	Flash Flood	0	0	\$200,000
<i>Prentiss</i>	2/10/2013	Flash Flood	0	0	\$0
<i>Prentiss ARPT</i>	8/25/2020	Flash Flood	0	0	\$5,000
<i>Prentiss</i>	8/25/2020	Flash Flood	0	0	\$3,000
<i>Prentiss</i>	4/17/2022	Flash Flood	0	0	\$10,000
<i>Prentiss</i>	8/24/2022	Flash Flood	0	0	\$120,000
Unincorporated Area in Jefferson Davis County					
<i>County Wide</i>	3/3/2001	Flash Flood	0	0	\$10,000
<i>County Wide</i>	9/3/2001	Flash Flood	0	0	\$80,000
<i>Gwinville</i>	2/21/2003	Flash Flood	0	0	\$1,000

<i>County (Southern)</i>	3/31/2005	Flash Flood	0	0	\$200,000
<i>County (Southern)</i>	4/1/2005	Flash Flood	0	0	\$80,000
<i>Southeast Portion</i>	8/29/2005	Flash Flood	0	0	\$100,000
<i>Hebron</i>	3/9/2011	Flash Flood	0	0	\$20,000
<i>Carson</i>	9/5/2011	Flash Flood	0	0	\$5,000
<i>Terrell</i>	1/3/2015	Flash Flood	0	0	\$7,000
<i>Hathorn & Hebron</i>	7/25/2017	Flash Flood	0	0	\$55,000
<i>Terrell & MT Carmel</i>	8/25/2020	Flash Flood	0	0	\$82,000
<i>Gwinville</i>	8/25/2020	Flash Flood	0	0	\$20,000
<i>Gwinville</i>	3/25/2021	Flash Flood	0	0	\$15,000
<i>Hathorn</i>	6/6/2021	Flash Flood	0	0	\$25,000
<i>Carson</i>	4/17/2022	Flash Flood	0	0	\$5,000

Source: NCED/NOAA

TABLE D:7: EXTENT: FLOOD EVENTS IN JEFFERSON DAVIS COUNTY SINCE THE LAST UPDATE

Jefferson Davis County: \$285,000					
Location	Date	Loss	Cause	Impact	
Prentiss & County	8/25/2020	\$110,000	Tropical moisture associated with Tropical Storm Marco helped to initiate showers across southeast Mississippi. Some of this rain brought flash flooding to the region.	- In the County water damage occurred to a home on White Rogers Road. Four homes received some water damage on Ponderosa Road, and water was over Sumrall Road. Water was over Clem School Road and culverts were washed away. - In Prentiss water overflowed the banks of White Sands Creek and covered Dykes Road and South Pleasant Hill Road. Water also covered Granby Road and Mt. Zion Road.	
Gwinville	3/25/2021	\$15,000	Vigorous wind shear as well as ample instability would combine to generate thunderstorms that had the potential for violent severe weather. Storms developed during the afternoon, bringing damaging winds and flash flooding to the region.	A culvert along Williamson Mill Road was washed out.	
Hathorn	6/6/2021	\$25,000	As an upper-level low pressure system moved over central parts of the country. These brought rounds of severe thunderstorms and heavy rain to the region.	- Over 200 homes were flooded in portions of Bolivar and Sunflower Counties. - Raynes Road was completely covered in water, and a portion was washed out by floodwaters.	
Prentiss & Carson	4/17/2022	\$15,000	Several rounds of severe thunderstorms produced large hail, damaging wind gusts, and tornadoes through the day on April 17th.	- A portion of Choctaw Road was flooded. - In Prentiss the intersection area of MS Highway 42 and MS Highway 13 was flooded.	
Prentiss	8/24/2022	\$120,000	A low-pressure system spinning over northern Louisiana and southern Arkansas brought several rounds of showers and thunderstorms producing heavy rain to Mississippi August 24th through 25th.	- This resulted in widespread flooding of roads, homes, and businesses around the state. - Two businesses in Prentiss flooded.	

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES

Recently, FEMA issued a directive that prevents states or local governments from sharing NFIP information such as rep loss or severe rep loss data with third parties. Third parties are considered as consultants, contractors, etc. As a result, for continuity of information of the historical occurrences along with the corresponding damage amounts are unknown, unless the Jurisdiction requests the information directly from FEMA and shares it with the committee. The decision was made to leave the existing information in the plan if the Jurisdiction did not provide the requested information.

According to FEMA flood insurance policy records as of March 2023, there have been 32 flood losses reported in Jefferson Davis County through the National Flood Insurance Program (NFIP) since 1978, totaling over \$4,600 in claims payments. A summary of these figures for the county is provided in **Table D.8**. It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Jefferson Davis County were either uninsured, denied claims payment, or not reported.

REPETITIVE LOSS PROPERTIES

No updates to this section can be provided at this time. Information normally used to update this section is not currently accessible. As a result, this information will remain the same for historical purposes.

As of May 2023, there are no non-mitigated repetitive loss properties located in Jefferson Davis County. **Table D.8** presents detailed information on repetitive loss properties and NFIP claims and policies for Jefferson Davis County. This remains the best available data.

TABLE D.8: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSSES IN JEFFERSON DAVIS COUNTY

Location	Flood Losses	Claim Payments	Repetitive Loss Properties	Number of Properties	Number of Losses	Total Payments	Average Payments
Bassfield*	--	--		--	--	--	--
Prentiss	2	\$4,613		0	0	\$0	\$0
Unincorporated Area	0	\$0		0	0	\$0	\$0
Jefferson Davis County Total:	2	\$4,613		0	0	\$0	\$0

*These communities do not participate in the National Flood Insurance Program. Therefore, no values are reported.
Source: FEMA, NFIP

PROBABILITY OF FUTURE OCCURRENCES

Due to the unpredictable nature of this hazard, flood events will remain a threat in Jefferson Davis County, and the probability of future occurrences will remain likely (between 10 and 100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the region. For example, the area near Prentiss has more floodplain and thus a higher risk of flood than areas near Bassfield. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

D.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Erosion in Jefferson Davis County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Jefferson Davis County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Jefferson Davis County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

Jefferson Davis County has a flood damage prevention ordinance that includes measures to limit erosion, such as restricting uses that result in damaging increases in erosion. Such actions will continue to be implemented as necessary throughout the region.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Jefferson Davis County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

If the climate continues to change as scientists predict, the higher intensity and magnitude of storms, increasing droughts, and high heat days, can lead to erosion in areas that have not been impacted by erosion in the past. Also, the chance of heavy rain could lead to flash flooding, which could also increase in frequency, intensity, and magnitude. With the increasing frequency and intensity of heavy rains and flash flooding could have cascading effects such as erosion of soil from the ground, under/around trees, and under roads. This can lead to falling trees, power outages, and road damage.

D.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

According to the Mississippi Division of Environmental Quality, there are two high hazard dams in Jefferson Davis County. **Figure D.3** shows the location of each of these high hazard dams and **Table D.9** lists them by name. There are no changes to this section. According to a consensus of local government officials and the Regional Hazard Mitigation Council, a majority of these dams would not pose a major threat in a breach or failure occurrence.

FIGURE D.3: JEFFERSON DAVIS COUNTY HIGH HAZARD DAM LOCATIONS

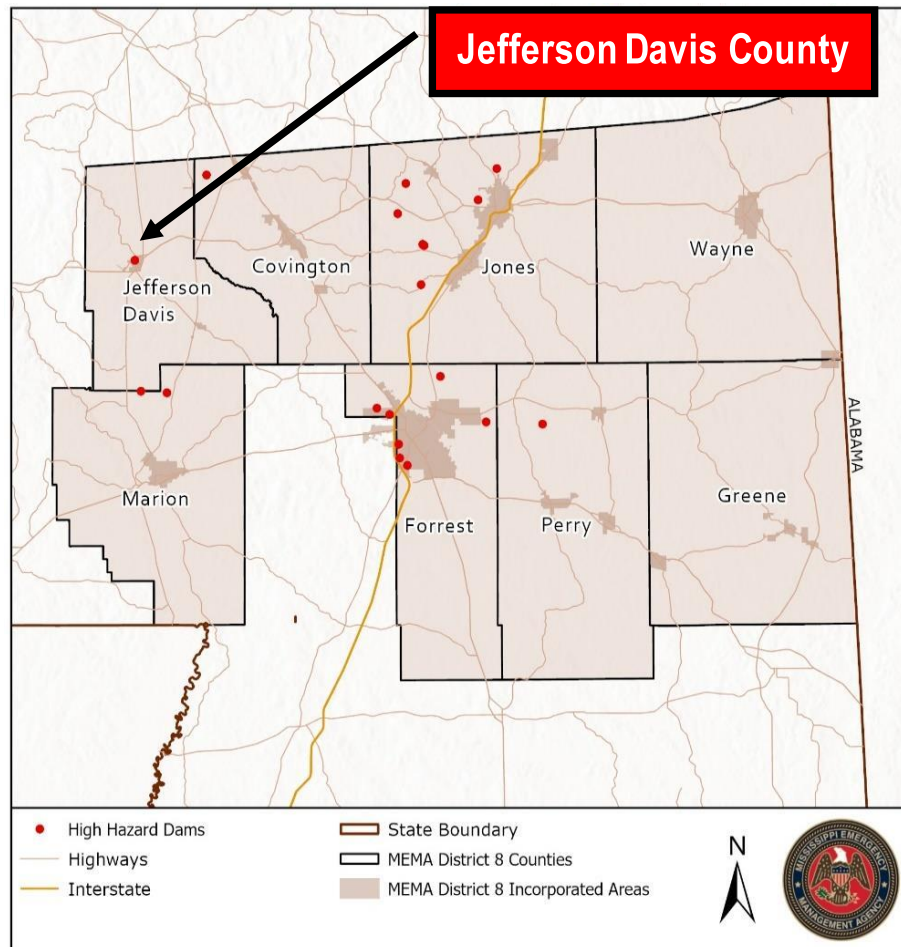


TABLE D.9: JEFFERSON DAVIS COUNTY HIGH HAZARD DAMS

Hazard Potential	Dam Name
High	<i>Lake Jefferson Davis Dam</i>
High	<i>White Sand – Green’s Creek Street 11E Dam</i>

HISTORICAL OCCURRENCES

There is no record of dam breaches in Jefferson Davis County. However, several breach scenarios in the county could be catastrophic.

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

D.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local winter weather. Jefferson Davis County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of fourteen recorded winter storm events in Jefferson Davis County since 2000. These events resulted in almost \$1.960 million in damages. Detailed information on the recorded winter storm events can be found in **Table D.10**.

TABLE D.10: HISTORICAL WINTER STORM EVENTS IN JEFFERSON DAVIS COUNTY

Date	Type	Injuries/ Deaths	Property Damage
1/19/2008	Heavy Snow	0/0	\$350,000
12/11/2008	Heavy Snow	0/0	\$10,000
12/4/2009	Heavy Snow	0/0	\$0
1/1/2010	Cold/Wind Chill	0/0	\$200,000
2/11/2010	Heavy Snow	0/0	\$600,000
1/9/2011	Ice Storm	0/0	\$30,000
2/3/2011	Ice Storm	0/1	\$400,000
1/16/2013	Heavy Snow	0/0	\$0
1/28/2014	Heavy Snow	0/0	\$0
1/6/2017	Sleet	1/0	\$20,000
12/7/2017	Heavy Snow	0/0	\$75,000
1/16/2018	Heavy Snow	0/0	\$20,000
2/15/2021	Ice Storm	0/0	\$250,000
2/17/2021	Winter Weather	0/0	\$5,000
Total:	14	1/1	\$1,960,000

Source: NCED/NOAA

There have been a couple of severe winter weather events in Jefferson Davis County. The text below describes seven of the major events and associated impacts on the county. Similar impacts can be expected with severe winter weather.

January 19, 2008—The heaviest snow appears to have fallen in the areas around Covington, Jefferson Davis, and western Jones Counties, where isolated amounts of 4 to 5 inches occurred. At the height of the snow, temperatures were able to fall to near freezing, and accumulations occurred on roadways resulting in a number of traffic accidents. Additionally, some power outages occurred in the heaviest snow band due to the weight of the wet snow on limbs and lines. However, most folks in the area enjoyed the rare snowfall and took full advantage of the opportunity to make snowmen and snow angels, or to go sledding on the nearest hill. Three inches of snow fell across Jefferson Davis County. Some heavier amounts, around four inches, may have fallen across other portions of the county

January 1, 2010—A prolonged cold snap, caused by a couple of strong arctic air masses, affected the ArkLaMiss region during the first two weeks of January. This resulted in some record temperatures across the region. Daily highs during that period were in the 20s, 30s and 40s with lows in the teens and 20s. The first ten days of 2010 were the coldest first ten days of any year on record with an average temperature of around 29 degrees, which is around 14 to 16 degrees below normal.

This outbreak will not be remembered for any bitterly cold temperatures, it will be remembered for the prolonged period of cold conditions and spans of time below freezing. Due to the duration of the cold, a great deal of damage occurred to the water line infrastructure around the region.

The issues from the hard freeze were as follows: water line breaks, and frozen water pipes to homes, especially rural homes; wells freezing up; and water valves being stuck. Due to all the water line breaks, flooding of buildings and homes occurred. The water association in Jefferson Davis County reported that a broken water line affected residents in the western portion of the county during the period.

February 11 & 12 2010—The National Weather Service office reported, a total of 4.7 inches of snow fell during the event. This is the 2nd largest February snowfall event and the 10th overall largest snowfall event on record. This heavy snow event was not just a local event. Heavy snow spanned a large portion of the South with a substantial swath of 3 to 6 inches which fell from north-central Texas through north and central Louisiana, central and southern Mississippi, Alabama and Georgia. Up to 6 inches of snow fell across portions of Jefferson Davis County, with 6 inches reported just northeast of Oak Vale.

February 3, 2011—A quarter inch of ice accumulated across the county with nearly all bridges iced over. Numerous accidents were reported. One indirect fatality occurred due to a vehicle accident.

January 16, 2013—Up to 2 inches of snow accumulation was reported across western portions of the county.

January 28, 2014—Two to three inches of snow mixed with some sleet fell across the northern portion of the county.

February 15, 2021—Freezing rain fell across the county. Accumulations of three tenths to one half of an inch occurred. Sleet accumulations up to four tenths of an inch also occurred. Ice accumulated on power lines, trees and roads. Numerous limbs were brought down onto power lines along with some trees down. This resulted in widespread power outages across the county.

January 6, 2017—An early season winter storm brought heavy snow to much of Mississippi between the evening of the 7th and into the afternoon of the 8th. The greatest amounts fell mainly south and east of the Natchez Trace corridor. Amounts of up to 7 to 8 inches were measured in the Pine Belt. Heavier snow accumulations resulted in downed limbs and trees, power outages, and traffic accidents across the state.

An average of 4 to 6 inches of heavy snow fell across Jefferson Davis County, with the highest total of 6.5 inches falling in Prentiss. The snow resulted in numerous downed limbs and trees and power outages across the county. One downed tree landed on a home in Prentiss. An 8-year-old boy in Bassfield suffered a head injury in his yard when a tree limb broke under the weight of the snow.

January 16, 2018—Heavy snow fell across the county with up to 2 inches of accumulations.

February 15, 2021—Freezing rain fell across the county. Accumulations of three tenths to one half of an inch occurred. Sleet accumulations up to four tenths of an inch also occurred. Ice accumulated on power lines, trees and roads. Numerous limbs were brought down onto power lines along with some trees down. This resulted in widespread power outages across the county.

February 17, 2021—A light icing of up to around 0.15 inches accumulated on trees in the northern half of the county due to rounds of freezing rain through the afternoon and evening.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Jefferson Davis County. According to historical information, the annual probability is possible (between 1 and 10 percent).

D.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Jefferson Davis County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Jefferson Davis County had drought levels (including abnormally dry) on ten occasions between the years 2000-2024. **Table D.11** shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE D. 11: HISTORICAL DROUGHT OCCURRENCES IN JEFFERSON DAVIS COUNTY					
Abnormally Dry	Moderate Drought	Severe Drought	Extreme Drought	Exceptional Drought	
Location	Date	Injuries/Deaths	Property Damage	Crop Damage	Event/Severity
Jefferson Davis County	10/1/2006	0/0	\$0	\$500,000	D3
Jefferson Davis County	4/25/2007	0/0	\$0	\$0	D2
Jefferson Davis County	5/1/2007	0/0	\$0	\$700,000	D3
Jefferson Davis County	6/1/2007	0/0	\$0	\$900,000	D4
Jefferson Davis County	7/1/2007	0/0	\$50,000	\$0	D3
Jefferson Davis County	10/6/2015	0/0	\$0	\$1,000	D2
Jefferson Davis County	11/15/2016	0/0	\$0	\$50,000	D2
Jefferson Davis County	9/1/2023	0/0	\$0	\$0	D4
Jefferson Davis County	10/1/2023	0/0	\$0	\$0	D4
Jefferson Davis County	11/1/2023	0/0	\$0	\$528,000	D4
Total:	10	0/0	\$50,000	\$2,679,000	

Source: NCED/NOAA

There have been several severe winter weather events in Jefferson Davis County. The text below describes five of the major events and associated impacts on the county.

October 2006—During a four-and-a-half-month period, from June to the middle of October, abnormally dry conditions prevailed across most of the Jackson, MS County Warning Area (CWA). Widespread drought conditions were reported across the area during this time period. The U.S. Drought Monitor classified the drought as extreme (D3) over Southeast Mississippi. Drought conditions in the region peaked in intensity during early August over this area. This drought caused approximately \$500 thousand in crop damage.

April to July 2007—By the last week of April, dry conditions persisted, and the area categorized by severe drought was expanded. This new area moved further south and reached down to Highway 84. It was also expanded westward, generally to the Mississippi River. During these last few days of April, rainfall deficits were now running between 10 and 14 inches below normal.

Again, areas across Eastern Mississippi remained the driest. Even as the drought conditions were classified as severe, area farmers were not suffering and were only experiencing small impacts of the dry weather. This is mainly due to the fact that the soil still had a little moisture left from the winter rains and during the second half of April, a few days did receive some small amounts of rain, which at least introduced some moisture to the very top of the soil.

By the end of May, crops across the state were beginning to feel the impact of the very dry conditions. At that point, some damage to crops had occurred with only small losses to yields expected. Extended drought conditions would make conditions worse with more substantial crop damage/losses if no rain occurred into the month of June.

The month of June did not offer much rain as most of the forecast area saw less than 40% of the normal rainfall. If you would go back to the start of the drought, the portion of the forecast area under the drought has only seen 5 to 20% of the annual rainfall. Historical climate sites are running some 15 to 20 inches below normal for rainfall with deficits now higher than the yearly total. With the drought conditions reaching extreme levels, area farmers and crops began feeling the effects. Many crops from corn to soybeans have been affected with yields forecast to be much less than normal by harvest time. The quality of the crops has been affected as well due to the dry conditions.

The extreme to exceptional drought, which had gripped a large portion of the region since May, finally was reduced during the first and middle portion of July.

October 2015—Very dry conditions occurred over Central Mississippi during the summer months with severe to extreme drought conditions developing over the area by September and continuing into October.

November 2016—Dry conditions were prevalent in October and continued into November, which created continued stress on crops. The drought continued to get worse across the state through the month before some relief came in the form of showers and thunderstorms near the end of November.

September to November 2023—The combined effects of persistent above-normal temperatures and minimal precipitation starting in early July 2023 resulted in mounting drought impacts across portions of much of southern and central Mississippi. Drought conditions in Jefferson Davis County intensified from D2 (Severe Drought) to D4 (Exceptional Drought) as depicted on the U.S. Drought Monitor.

Drought conditions in Jefferson Davis County persisted at D4 (Exceptional Drought) as depicted on the U.S. Drought Monitor.

Subsoil moisture values across the southern half of the state saw some improvement to between 15 to 30 percent below normal. These conditions placed a severe stress on pastures for livestock and cropland at the end of the growing season. Pine plantations and Christmas tree farms experienced severe losses especially among younger trees. In a study of over 13 million forested acres through western and central Mississippi surveyed by the Mississippi Forestry Commission, it was estimated that approximately 80,000 acres of pine trees were killed by drought stress. In the study area, this accounted for approximately 12.5 million pine trees lost. Stream flows on creeks and rivers were reduced. Drought conditions in Jefferson Davis County remained at D4 (Exceptional Drought) as depicted on the U.S. Drought Monitor.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

July 2005—A five-day heat wave covered the area. Temperatures were consistently above 95 degrees. The agricultural industry was hit particularly hard in the cattle and catfish sectors. Water supply issues were encountered by cities and a burn ban was implemented due to the high fire risk.

August 2005—A heat wave covering the south began in mid-August and lasted about 10 days. High temperatures were consistently over 95 degrees and surpassed 100 degrees on some days. It was the first time since August 2000 that 100-degree temperatures reached the area.

July 2006—A short heat wave impacted most of the area temperatures in the 90s to around 100 for five straight days.

August 2007—A heat wave gripped most of the area with the warmest temperatures since 2000. It lasted from August 5th to the 16th.

August 2010—A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded.

The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Jefferson Davis County has a probability level of highly likely (100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude.

Heat Wave

Based on historical occurrence information, it is assumed that all of Jefferson Davis County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could impact the effects on the counties' crops, economy, and population.

D.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2023 Jefferson Davis County experiences an average of 57.7 wildfires annually which burn an average of 573.4 acres per year. The data indicates that most of these fires are small, averaging 9.9 acres per fire. **Table D.12** provides a summary of wildfire occurrences in Jefferson Davis County since the last update, and **Table D.13** lists the number of reported wildfire occurrences in the county between the years 2010 and 2023.

TABLE D.12: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2023) *

Jefferson Davis County	
Average Number of Fires per year	45.4
Average Number of Acres Burned per year	664.8
Average Number of Acres Burned per fire	14.64

Source: MS Forestry Commission

TABLE D.13: HISTORICAL WILDFIRE OCCURRENCES IN JEFFERSON DAVIS COUNTY

Jefferson Davis County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	64	135	58	46	69	65	64	46	34	38	22	39	48	80
Number of Acres Burned	277	953	385	251	728	783	487	443	447	622	182	502	1021	997

Source: US Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Wildfire events will be an ongoing occurrence in Jefferson Davis County. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to Jefferson Davis County for future wildfire events is likely (a 10 and 100 percent annual probability).

If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact or wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

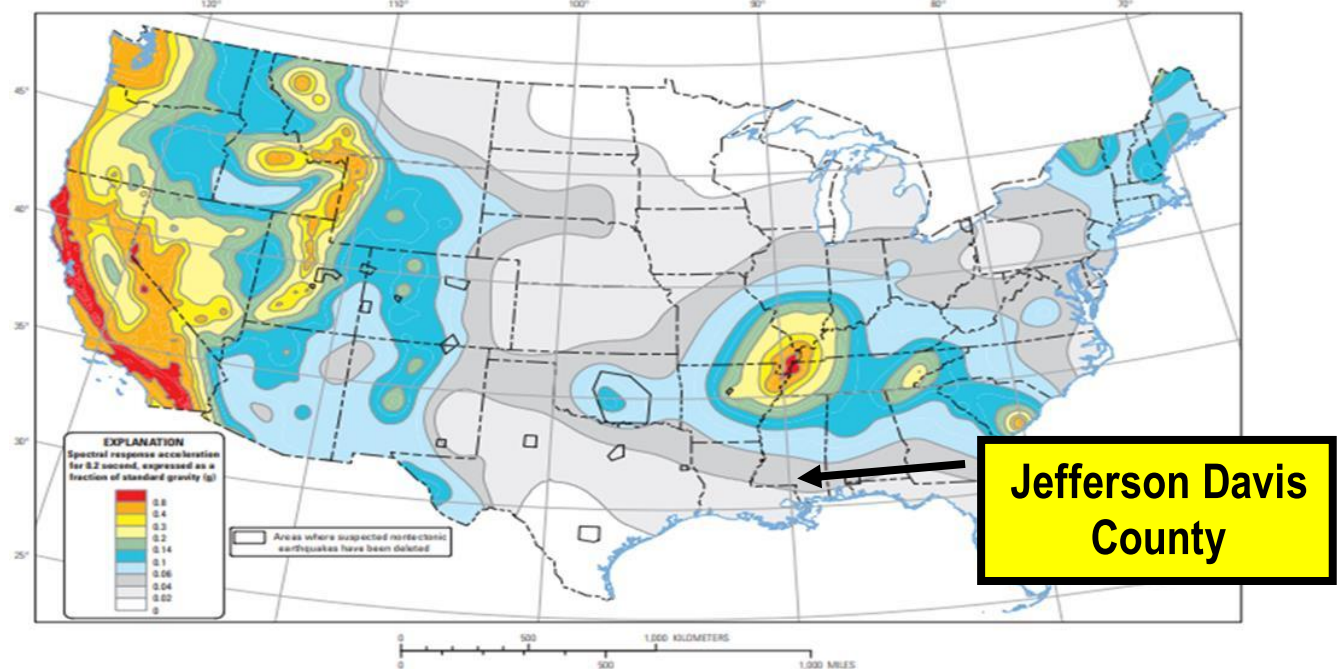
If the predicted increase in heavy rains occur it can also cause flooding and erosion, which can also make the area more susceptible to wildfires.

D.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure D.5 shows the intensity level associated with Jefferson Davis County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, Jefferson Davis County lies within an approximate zone of level “2” to “3” ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE D.5: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS



Source: USGS

HISTORICAL OCCURRENCES

No earthquakes are known to have affected Jefferson Davis County since 1638. **Table D.14** provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 and 2023.

TABLE D.14: SUMMARY OF SEISMIC ACTIVITY IN JEFFERSON DAVIS COUNTY

Location	Date	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
<i>Bassfield</i>	--	0	--	--
<i>Prentiss</i>	--	0	--	--
<i>Unincorporated Area</i>	--	0	--	--
Jefferson Davis County Total:		0	--	--

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Jefferson Davis County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

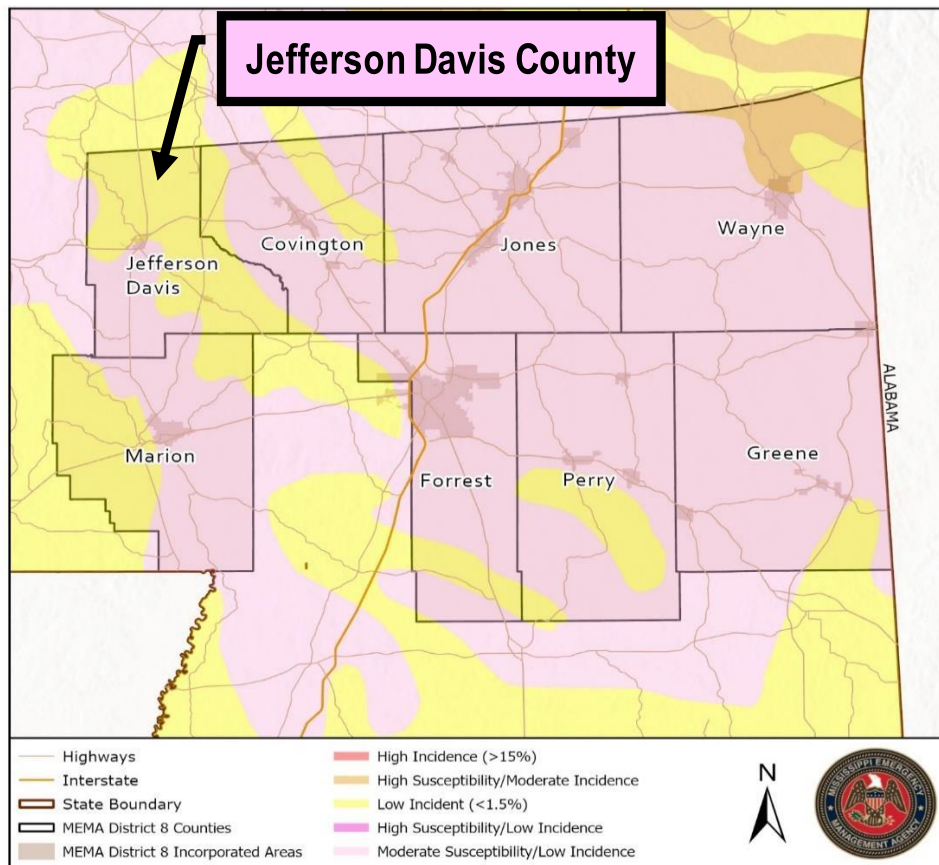
D.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. The most frequent and widespread damaging landslides in the U.S. are induced by prolonged or heavy rainfall. The majority of rainfall-induced landslides are shallow, small, and move quickly. Landslides are possible throughout Jefferson Davis County.

According to **Figure D.6** below, the entire county falls under a low incidence area (yellow and light pink). This indicates that less than 1.5 percent of the area is involved in land sliding. The areas in yellow are defined as low incidence and low susceptibility. The areas in light pink, however, indicate that a moderate susceptibility to land sliding activity is present. There are no changes with susceptibility to the landslide hazard since the last plan update.

FIGURE D.6: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF JEFFERSON DAVIS COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Jefferson Davis County. Landslide events typically occur in isolated areas.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that all areas in Jefferson Davis County have a low landslide incidence rate. However, some areas are reported as having moderate susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Jefferson Davis County have greater risk than others given factors such as steepness on slope and modification of slopes.

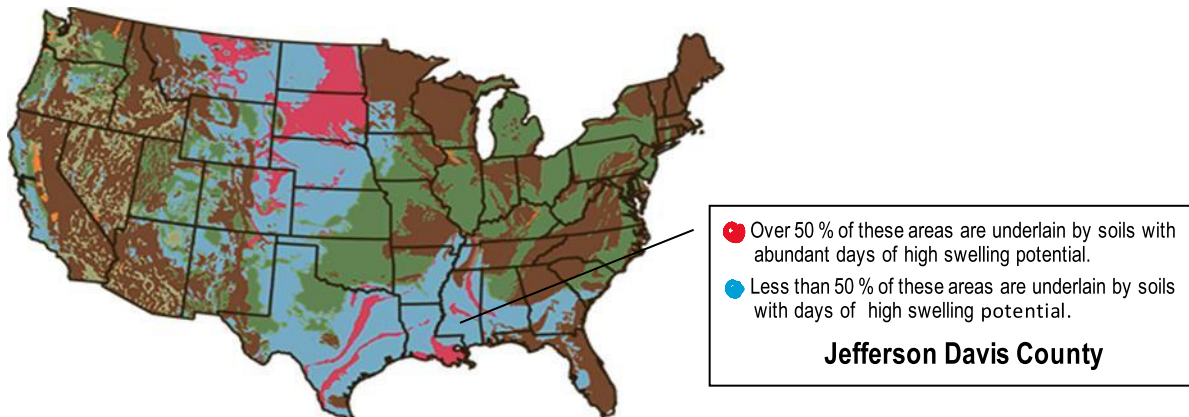
As the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

D.2.9 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Jefferson Davis County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure D.7**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential.

FIGURE D.7: SWELLING CLAYS IN MISSISSIPPI



Source: USGS

HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Jefferson Davis County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

D.2.10 Hurricane and Tropical Storm

LOCATION AND SPATIAL EXTENT

Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Jefferson Davis County. All areas in Jefferson Davis County are equally susceptible to hurricane and tropical storms.

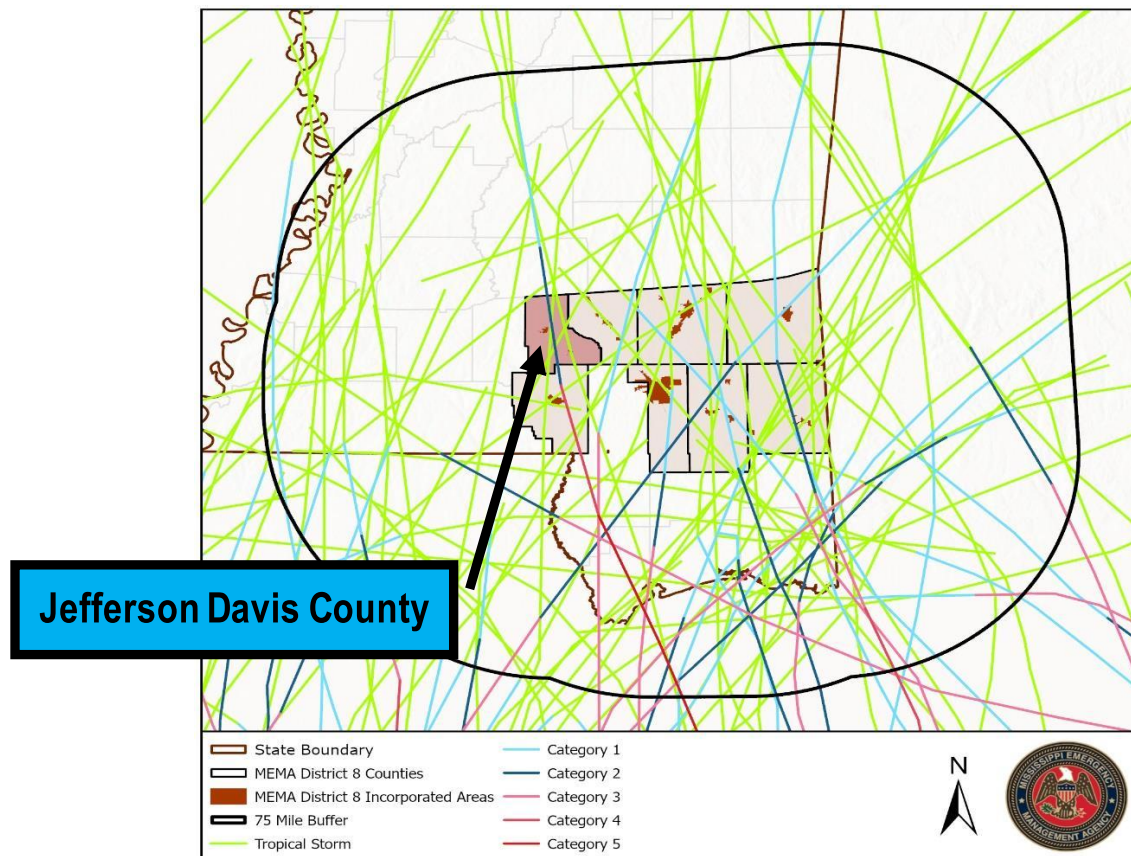
HISTORICAL OCCURRENCES

The National Centers for Environmental Information has not reported any hurricane hazards affecting the area during this planning period. As a result, the information will remain the same.

According to the National Hurricane Center's historical storm track records, a total of 54 hurricanes have passed within 75 miles of Jefferson Davis County since 1851. This includes 1 category 5 storm, 0 category 4 storms, 3 category 3 storms, 6 category 2 storms, 7 category 1 storms, and 37 tropical storms as shown in **Figure D.8**.

A total of five tracks passed directly through the county including Hurricanes Camille (1969), Edith (1971), and Isidore (2002). All storms were tropical storms when they traversed the county except Hurricane Camille, which passed through the county as category 3 hurricane. **Table D.14** provides the detail for each storm that passed through the county including date of occurrence, name (if applicable), maximum wind speed (as recorded when traversing the county) and category of the storm based on the Saffir-Simpson Scale.

FIGURE D.8: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF JEFFERSON DAVIS COUNTY



Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Dennis), 2005 (Hurricane Katrina), 2008 (Hurricane Gustav), 2012 (Hurricane Isaac), and 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial damage in the area due to high winds and flooding.

TABLE D.14: HISTORICAL STORM TRACKS WITHIN 75 MILES OF JEFFERSON DAVIS COUNTY (1850–2024)

Date of Occurrence	Storm Name	Maximum Wind Speed (mph)	Storm Category	Disaster Declaration	Property Damage	Crop Damage
10/10/1905	<i>Unknown</i>	40	Tropical Storm	--	<i>Unknown</i>	<i>Unknown</i>
9/30/1915	<i>Unknown</i>	69	Tropical Storm	--	<i>Unknown</i>	<i>Unknown</i>
9/4/1969	<i>Hurricane Camille</i>	115	Category 3	Yes, #271	<i>Unknown</i>	<i>Unknown</i>
9/16/1971	<i>Hurricane Edith</i>	<i>Unknown</i>	Tropical Storm	No	<i>Unknown</i>	<i>Unknown</i>
9/1998	<i>Hurricane Georges</i>	<i>Unknown</i>	Tropical Storm	Yes, #1251	<i>Unknown</i>	<i>Unknown</i>
9/26/2002	<i>Hurricane Isadore</i>	63	Tropical Storm	No	\$0	\$0
6/30/2003	<i>Tropical Storm Bill</i>	<i>Unknown</i>	Tropical Storm	No	\$0	\$0
7/1/2003	<i>Hurricane Claudette</i>	<i>Unknown</i>	Tropical Storm	No	\$0	\$0
9/16/2004	<i>Hurricane Ivan</i>	95	Category 1	Yes, #1550	<i>Unknown</i>	<i>Unknown</i>
7/10/2005	<i>Hurricane Dennis</i>	55	Tropical Storm	Yes, #1594	<i>Unknown</i>	<i>Unknown</i>
8/29/2005	<i>Hurricane Katrina</i>	130	Category 3	Yes, #1604	\$150,000,000	\$50,000,000
9/24/2005	<i>Hurricane Rita</i>	45	Tropical Storm	No	\$10,000	\$20,000
9/1/2008	<i>Hurricane Gustav</i>	50	Tropical Storm	No	\$200,000	\$0
8/29/2012	<i>Hurricane Isaac</i>	45	Tropical Storm	Yes, 4081	\$500,000	\$0
9/4/2018	<i>Hurricane Gordon</i>	50	Depression	No	\$15,000	\$0
8/30/2021	<i>Hurricane Ida</i>	50	Tropical Storm	Yes, #4626	\$75,000	\$0
9/12/2024	<i>Hurricane Francine</i>	40	Tropical Storm	No	\$15,000	\$0
Total:	17	--	--	--	\$150,815,000	\$50,020,000

Source: National Hurricane Center and NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted the county as found below:

August 29, 2005—Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20. This hurricane has changed life as we know it across the Gulf Coast region which will take many years to return to normal.

Hurricane Katrina was a very large and powerful storm which set several unfortunate records. The sustained winds were 145 mph, and the central pressure was 918 mb or 27.11 inches of mercury. This ranks Katrina as having the 3rd lowest pressure at landfall behind Camille (2nd) and the Labor Day Hurricane (1st). Millions of trees were uprooted, snapped or severely damaged. It was the fallen trees that caused just about all of the structural damage and downed power lines across this region. Hundreds of trees fell onto homes causing minor to major damage.

Additionally, significant and extensive damage occurred to the Agriculture and Forestry industries of this region. The most devastating damage occurred across Southeast Mississippi, especially south and east of a Columbia to Collins to Laurel line. This region received sustained winds between 60 and 80 mph with gusts ranging from 80 to 120 mph. Wind damage to structures was widespread as many roofs were blown off or partially peeled off. Hundreds of signs were shredded or blown down. Many businesses sustained structural damage as windows were broken, roofs were blown off and walls were collapsed. Millions of trees were uprooted and snapped. Power poles and lines were snapped and taken down from wind and trees. It was the thousands of downed trees which caused the most significant structural damage as these trees fell onto homes and businesses. Ten fatalities were caused by trees falling on homes or on people in Jones county. This region received an enormous blow to the timber industry as a large percentage of trees were blown down or severely damaged. This timber damage will affect this region for decades. Additionally, the combination of the winds and loss of power caused significant losses to the poultry industry and other agricultural industries across this region.

Hurricane Katrina was responsible for 15 direct fatalities across inland Mississippi and 19 indirect. All the direct deaths, in some way, were attributed to fallen trees. Trees either fell on homes, on vehicles, or on the actual person. The indirect fatalities varied and ranged from heart attacks to heat stress during the days after without power.

Damage costs associated with this hurricane will be the highest for any natural disaster in United States history. Preliminary amounts, across the NWS Jackson County Warning Area (CWA), show property damage estimates around 5.9 Billion dollars. Agricultural damage across the region was also extremely high with estimates around 1.5 Billion dollars. The total estimated damage is approximately 7.4 Billion dollars. All of these estimates are extremely preliminary and will likely be adjusted over the coming months.

September 1, 2008—Hurricane Gustav was the 2nd major hurricane of the 2008 Atlantic Hurricane Season. Tropical storm force winds occurred across Jefferson Davis County as the outer edges of Hurricane Gustav moved across southern Louisiana. Scattered trees and power lines were blown down, especially across the southern portion of the county. Wind gusts peaked between 45 and 55 mph for a few hours.

August 29, 2012—Isaac moved very slowly to the north and northwest over the course of August 29th, which made for prolonged impacts. Forward motion of about 5 mph led to tremendous flooding issues for both Louisiana and portions of Mississippi south of I-20. Around noon on August 29th, Isaac was downgraded to a Tropical Storm, but this was not much relief to the many residents who were being inundated with rain and wind. Storm total rainfall across portions of Marion County indicated at least 10 to 15 inches fell. Numerous homes and buildings were flooded, and some water rescues occurred in Lamar, Marion and Clarke counties. In Jefferson Davis County, by late afternoon of the 29th several large limbs and trees were blown down across the county. By mid-evening power outages were occurring near Bassfield and in the northwest part of the county. Additional trees and power lines were blown overnight due to the strong winds. By noon on the 30th, widespread trees and power lines were blown down across the county causing widespread power outages.

August 29, 2021—Ida brought tropical storm force gusts to portions of Mississippi, which brought down trees and power lines. Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding.

September 12, 2024—Tropical Storm Francine produced strong wind damage as it weakened across central Mississippi. Winds blew down scattered trees and powerlines across Jefferson Davis County.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 percent). Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientists and meteorologists predict tropical cyclones to increase in frequency, magnitude, and intensity as the climate continues to change. These increases could be catastrophic to MS Coastal areas and the counties near the coast.

D.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Jefferson Davis County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Jefferson Davis County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Jefferson Davis County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Jefferson Davis County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in seven disaster declarations in Jefferson Davis County in 1992, 2011, 2017, 2019, twice in 2020, and 2023. According to NCEI, there have been 153 reported thunderstorm and high wind events since 2000 in Jefferson Davis County. These events caused approximately \$2.9 million in damages. **Table D.15** summarizes this information. **Table D.16** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE D.15: SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN JEFFERSON DAVIS COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
<i>Bassfield</i>	30	0	0	\$359,000	\$0
<i>Prentiss</i>	52	0	0	\$647,500	\$0
<i>Unincorporated Area</i>	71	0	0	\$1,912,000	\$60,000
Jefferson Davis County Total:	153	0	0	\$2,888,500	\$60,000

Source: NCED/NOAA

TABLE D.16: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN JEFFERSON DAVIS COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Town of Bassfield							
<i>Bassfield</i>	4/3/2000	TSTM Wind	<i>Unknown</i>	0	0	\$3,000	\$0
<i>Bassfield</i>	4/8/2002	TSTM Wind	<i>Unknown</i>	0	0	\$5,000	\$0
<i>Bassfield</i>	5/17/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Bassfield</i>	7/17/2003	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Bassfield</i>	8/6/2003	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Bassfield</i>	11/24/2004	TSTM Wind	75 kts.	0	0	\$60,000	\$0
<i>Bassfield</i>	3/20/2006	TSTM Wind	55 kts.	0	0	\$15,000	\$0

<i>Bassfield</i>	5/10/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Bassfield</i>	2/13/2007	TSTM Wind	55 kts.	0	0	\$15,000	\$0
<i>Bassfield</i>	12/20/2007	TSTM Wind	60 kts.	0	0	\$0	\$0
<i>Bassfield</i>	2/12/2008	TSTM Wind	65 kts.	0	0	\$15,000	\$0
<i>Bassfield</i>	2/17/2008	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Bassfield</i>	12/9/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Bassfield</i>	3/27/2009	TSTM Wind	55 kts.	0	0	\$6,000	\$0
<i>Bassfield</i>	4/24/2010	TSTM Wind	60 kts.	0	0	\$15,000	\$0
<i>Bassfield</i>	5/25/2010	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Bassfield</i>	6/15/2010	TSTM Wind	43 kts.	0	0	\$3,000	\$0
<i>Bassfield</i>	8/22/2010	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Bassfield</i>	6/5/2013	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Bassfield</i>	8/3/2014	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Bassfield</i>	3/17/2016	TSTM Wind	55 kts.	0	0	\$20,000	\$0
<i>Bassfield</i>	7/22/2016	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>Bassfield</i>	6/29/2017	TSTM Wind	48 kts.	0	0	\$25,000	\$0
<i>Bassfield</i>	4/18/2019	TSTM Wind	53 kts.	0	0	\$10,000	\$0
<i>Bassfield</i>	10/4/2019	TSTM Wind	55 kts.	0	0	\$30,000	\$0
<i>Bassfield</i>	10/26/2019	TSTM Wind	50 kts.	0	0	\$50,000	\$0
<i>Bassfield</i>	2/5/2020	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Bassfield</i>	1/12/2023	TSTM Wind	52 kts.	0	0	\$3,000	\$0
<i>Bassfield</i>	6/14/2023	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Bassfield</i>	5/13/2024	TSTM Wind	60 kts.	0	0	\$5,000	\$0
Town of Prentiss							
<i>Prentiss</i>	3/10/2000	TSTM Wind	Unknown	0	0	\$1,000	\$0
<i>Prentiss</i>	4/12/2000	TSTM Wind	Unknown	0	0	\$15,000	\$0
<i>Prentiss</i>	6/24/2000	TSTM Wind	Unknown	0	0	\$15,000	\$0
<i>Prentiss</i>	12/13/2000	TSTM Wind	Unknown	0	0	\$2,000	\$0
<i>Prentiss</i>	10/13/2001	TSTM Wind	Unknown	0	0	\$5,000	\$0
<i>Prentiss</i>	5/17/2002	TSTM Wind	Unknown	0	0	\$2,000	\$0
<i>Prentiss</i>	5/29/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
<i>Prentiss</i>	7/8/2002	TSTM Wind	Unknown	0	0	\$2,500	\$0
<i>Prentiss</i>	12/24/2002	TSTM Wind	60 kts.	0	0	\$5,000	\$0
<i>Prentiss</i>	12/31/2002	TSTM Wind	60 kts.	0	0	\$15,000	\$0
<i>Prentiss</i>	4/6/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Prentiss</i>	6/2/2003	TSTM Wind	55 kts.	0	0	\$25,000	\$0
<i>Prentiss</i>	5/1/2004	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Prentiss</i>	3/22/2005	TSTM Wind	70 kts.	0	0	\$30,000	\$0
<i>Prentiss</i>	4/6/2005	TSTM Wind	58 kts.	0	0	\$2,000	\$0
<i>Prentiss</i>	4/30/2005	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Prentiss</i>	5/29/2005	TSTM Wind	60 kts.	0	0	\$80,000	\$0
<i>Prentiss</i>	7/2/2005	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Prentiss</i>	3/9/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Prentiss</i>	3/20/2006	TSTM Wind	65 kts.	0	0	\$100,000	\$0
<i>Prentiss</i>	1/4/2007	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Prentiss</i>	7/12/2007	TSTM Wind	52 kts.	0	0	\$5,000	\$0

<i>Prentiss</i>	2/12/2008	TSTM Wind	58 kts.	0	0	\$15,000	\$0
<i>Prentiss</i>	7/29/2008	TSTM Wind	60 kts.	0	0	\$15,000	\$0
<i>Prentiss</i>	8/7/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Prentiss</i>	3/26/2009	TSTM Wind	58 kts.	0	0	\$8,000	\$0
<i>Prentiss</i>	4/12/2009	TSTM Wind	60 kts.	0	0	\$3,000	\$0
<i>Prentiss</i>	5/12/2009	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Prentiss</i>	8/15/2010	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Prentiss</i>	2/1/2011	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Prentiss</i>	3/8/2011	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Prentiss</i>	6/13/2011	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Prentiss</i>	4/3/2012	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Prentiss</i>	8/9/2012	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Prentiss</i>	4/7/2014	TSTM Wind	54 kts.	0	0	\$10,000	\$0
<i>Prentiss</i>	10/13/2014	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Prentiss</i>	6/24/2015	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Prentiss</i>	8/8/2015	TSTM Wind	56 kts.	0	0	\$30,000	\$0
<i>Prentiss</i>	11/18/2015	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Prentiss</i>	2/15/2016	TSTM Wind	53 kts.	0	0	\$10,000	\$0
<i>Prentiss</i>	3/17/2016	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Prentiss</i>	7/11/2016	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Prentiss</i>	4/14/2018	TSTM Wind	56 kts.	0	0	\$12,000	\$0
<i>Prentiss</i>	11/1/2018	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Prentiss</i>	6/24/2019	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Prentiss</i>	9/9/2019	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Prentiss</i>	10/26/2019	TSTM Wind	55 kts.	0	0	\$100,000	\$0
<i>Prentiss</i>	1/11/2020	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Prentiss</i>	3/31/2020	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Prentiss</i>	7/2/2020	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>Prentiss</i>	4/10/2024	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Prentiss</i>	6/4/2024	TSTM Wind	55 kts.	0	0	\$25,000	\$0
Unincorporated Area in Jefferson Davis County							
<i>County Wide</i>	1/29/2001	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>County Wide</i>	7/7/2002	TSTM Wind	55 kts.	0	0	\$3,000	\$0
<i>County Wide</i>	7/22/2003	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>County Wide</i>	8/20/2003	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>County Wide</i>	6/1/2004	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Mt. Carmel</i>	6/28/2004	TSTM Wind	55 kts.	0	0	\$1,000	\$0
<i>Oak Vale</i>	8/12/2005	TSTM Wind	55 kts.	0	0	\$20,000	\$30,000
<i>Oak Vale</i>	8/21/2005	TSTM Wind	55 kts.	0	0	\$30,000	\$10,000
<i>Oak Vale</i>	5/8/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Carson</i>	7/19/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Oak Vale</i>	1/4/2007	TSTM Wind	55 kts.	0	0	\$0	\$0
<i>Carson</i>	6/19/2007	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Carson</i>	7/10/2007	TSTM Wind	50 kts.	0	0	\$20,000	\$0
<i>Hathorn</i>	7/13/2007	TSTM Wind	53 kts.	0	0	\$10,000	\$0
<i>Hebron</i>	2/17/2008	TSTM Wind	50 kts.	0	0	\$10,000	\$0

<i>Gwinville</i>	2/21/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Oak Vale & Gwinville</i>	3/3/2008	TSTM Wind	55 kts.	0	0	\$12,000	\$0
<i>Terrell</i>	7/29/2008	TSTM Wind	60 kts.	0	0	\$7,000	\$0
<i>Lucus</i>	8/2/2008	TSTM Wind	55 kts.	0	0	\$0	\$0
<i>Hebron</i>	3/26/2009	TSTM Wind	75 kts.	0	0	\$75,000	\$0
<i>Lucus</i>	5/3/2009	TSTM Wind	70 kts.	0	0	\$180,000	\$0
<i>Gwinville</i>	5/10/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Oak Vale</i>	5/12/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Gwinville</i>	5/15/2009	TSTM Wind	57 kts.	0	0	\$0	\$0
<i>Gwinville</i>	5/20/2009	TSTM Wind	46 kts.	0	0	\$0	\$0
<i>County Wide</i>	7/28/2009	Strong Wind	43 kts.	0	0	\$1,500	\$0
<i>Carson</i>	5/25/2010	TSTM Wind	52 kts.	0	0	\$5,000	\$20,000
<i>Hebron</i>	6/1/2010	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Mt. Carmel & Carson</i>	8/3/2010	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Mt. Carmel</i>	8/4/2010	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Carson</i>	8/15/2010	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Mt. Carmel</i>	3/9/2011	TSTM Wind	57 kts.	0	0	\$5,000	\$0
<i>Oak Vale</i>	4/4/2011	TSTM Wind	60 kts.	0	0	\$50,000	\$0
<i>Hebron</i>	6/13/2011	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Hathorn</i>	7/4/2011	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Oak Vale</i>	8/18/2011	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>County Wide</i>	9/4/2011	Strong Wind	40 kts.	0	0	\$35,000	\$0
<i>Carson & Hathorn</i>	8/18/2012	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Oak Vale</i>	12/20/2012	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Hebron</i>	10/31/2013	TSTM Wind	50 kts.	0	0	\$150,000	\$0
<i>Melba</i>	2/20/2014	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Hebron</i>	4/15/2015	TSTM Wind	60 kts.	0	0	\$200,000	\$0
<i>Hebron</i>	5/30/2015	TSTM Wind	50 kts.	0	0	\$6,000	\$0
<i>Mt. Carmel</i>	6/24/2015	TSTM Wind	55 kts.	0	0	\$30,000	\$0
<i>County Wide</i>	11/17/2015	Strong Wind	42 kts.	0	0	\$7,000	\$0
<i>Hebron & Carson</i>	2/15/2016	TSTM Wind	60 kts.	0	0	\$10,000	\$0
<i>Carson</i>	3/17/2016	TSTM Wind	55 kts.	0	0	\$1,000	\$0
<i>Carson</i>	1/21/2017	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Lucus</i>	3/9/2017	TSTM Wind	55 kts.	0	0	\$30,000	\$0
<i>Mt. Carmel</i>	4/3/2017	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Carson</i>	4/26/2017	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Hebron</i>	6/16/2017	TSTM Wind	60 kts.	0	0	\$50,000	\$0
<i>Hebron</i>	7/25/2017	TSTM Wind	35 kts.	0	0	\$2,000	\$0
<i>Carson</i>	3/29/2018	TSTM Wind	56 kts.	0	0	\$60,000	\$0
<i>Terrell</i>	8/16/2018	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Hebron & Mt. Carmel</i>	11/1/2018	TSTM Wind	52 kts.	0	0	\$45,000	\$0
<i>Oak Vale & Mt. Carmel</i>	4/13/2019	TSTM Wind	55 kts.	0	0	\$30,000	\$0
<i>Gwinville & Carson</i>	1/11/2020	TSTM Wind	52 kts.	0	0	\$18,000	\$0
<i>Hebron</i>	4/22/2020	TSTM Wind	87 kts.	0	0	\$100,000	\$0
<i>Carson</i>	5/27/2020	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Mt. Carmel</i>	6/5/2020	TSTM Wind	52 kts.	0	0	\$9,000	\$0
<i>Gwinville & Mt. Carmel</i>	8/16/2020	TSTM Wind	52 kts.	0	0	\$10,000	\$0

Lucas	3/17/2021	TSTM Wind	60 kts.	0	0	\$30,000	\$0
Gwinville	4/24/2021	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Hebron	4/13/2022	TSTM Wind	65 kts.	0	0	\$50,000	\$0
Hebron & Lucas	5/5/2023	TSTM Wind	67 kts.	0	0	\$218,000	\$0
Hebron & Mt. Carmel	6/14/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Hebron	6/18/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Melba	1/25/2024	TSTM Wind	55 kts.	0	0	\$3,000	\$0
Lucas and Melba	4/10/2024	TSTM Wind	55 kts.	0	0	\$7,000	\$0
Oak Vale	5/13/2024	TSTM Wind	96 kts.	0	0	\$250,000	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 57 recorded hailstorm events have affected Jefferson Davis County since 2000. **Table D.17** is a summary of the hail events in Jefferson Davis County. **Table D.18** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$519,000 in property damages. Hail ranged in diameter from 0.75 inches to 2.50 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value. However, NCEI did not note any monetary damages for this planning period.

Lightning

According to the National Centers for Environmental Information, there have been five recorded lightning events in Jefferson Davis County since 2000. These events resulted in almost \$351,000 in damages as listed in summary **Table D.17**. However, it is likely that more lightning events have in fact impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported. Detailed information on historical lightning events can be found in **Table D.18**.

TABLE D.17: SUMMARY OF HAIL AND LIGHTNING OCCURRENCES IN JEFFERSON DAVIS COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
Bassfield	15	0	0	\$352,000	\$0
Prentiss	20	0	0	\$342,000	\$0
Unincorporated Area	26	0	1	\$176,000	\$0
County Total:	62	0	1	\$870,000	\$0

Source: NCED/NOAA

TABLE D.18: HISTORICAL HAIL AND LIGHTNING OCCURRENCES IN JEFFERSON DAVIS COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Town of Bassfield							
Bassfield	3/1/2001	Hail	0.88 in.	0	0	\$0	\$0
Bassfield	10/11/2001	Hail	0.75 in.	0	0	\$0	\$0
Bassfield	3/15/2002	Hail	0.88 in.	0	0	\$0	\$0
Bassfield	11/15/2002	Hail	0.75 in.	0	0	\$0	\$0
Bassfield	4/24/2003	Hail	0.88 in.	0	0	\$1,000	\$0
Bassfield	5/17/2003	Hail	0.88 in.	0	0	\$1,000	\$0
Bassfield	3/26/2005	Hail	1.50 in.	0	0	\$0	\$0

<i>Bassfield</i>	3/30/2005	Hail	0.75 in.	0	0	\$0	\$0
<i>Bassfield</i>	4/22/2005	Hail	0.88 in.	0	0	\$0	\$0
<i>Bassfield</i>	8/12/2005	Lightning	--	0	0	\$300,000	\$0
<i>Bassfield</i>	2/12/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Bassfield</i>	4/26/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Bassfield</i>	5/12/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Bassfield</i>	1/21/2017	Hail	1 in.	0	0	\$0	\$0
<i>Bassfield</i>	11/29/2022	Hail	1.75 in.	0	0	\$50,000	\$0
Town of Prentiss							
<i>Prentiss</i>	7/7/2002	Hail	1.75 in.	0	0	\$0	\$0
<i>Prentiss</i>	8/20/2003	Hail	0.88 in.	0	0	\$1,000	\$0
<i>Prentiss</i>	5/1/2004	Hail	0.75 in.	0	0	\$0	\$0
<i>Prentiss</i>	4/6/2005	Hail	1.75 in.	0	0	\$65,000	\$0
<i>Prentiss</i>	12/4/2005	Hail	0.75 in.	0	0	\$0	\$0
<i>Prentiss</i>	2/6/2006	Hail	1 in.	0	0	\$0	\$0
<i>Prentiss</i>	5/8/2006	Hail	1.75 in.	0	0	\$50,000	\$0
<i>Prentiss</i>	4/26/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Prentiss</i>	5/24/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Prentiss ARPT</i>	6/7/2011	Hail	1 in.	0	0	\$20,000	\$0
<i>Prentiss</i>	7/4/2011	Hail	1 in.	0	0	\$0	\$0
<i>Prentiss</i>	7/4/2011	Lightning	--	0	0	\$6,000	\$0
<i>Prentiss</i>	4/2/2012	Hail	0.88 in.	0	0	\$0	\$0
<i>Prentiss ARPT</i>	4/2/2012	Hail	1.75 in.	0	0	\$25,000	\$0
<i>Prentiss APRT</i>	6/8/2013	Hail	1.75 in.	0	0	\$0	\$0
<i>Prentiss</i>	12/23/2014	Hail	0.75 in.	0	0	\$0	\$0
<i>Prentiss</i>	1/3/2015	Lightning	--	0	0	\$10,000	\$0
<i>Prentiss</i>	3/17/2016	Hail	1 in.	0	0	\$0	\$0
<i>Prentiss</i>	3/25/2021	Hail	1 in.	0	0	\$0	\$0
<i>Prentiss</i>	3/26/2023	Hail	2.50 in.	0	0	\$150,000	\$0
<i>Prentiss ARPT</i>	6/14/2023	Hail	1.25 in.	0	0	\$15,000	\$0
Unincorporated Area in Jefferson Davis County							
<i>Carson</i>	3/10/2000	Hail	0.75 in.	0	0	\$0	\$0
<i>Hebron</i>	3/26/2005	Hail	1 in.	0	0	\$0	\$0
<i>Hebron</i>	4/6/2005	Hail	1 in.	0	0	\$0	\$0
<i>Hathorn</i>	4/6/2005	Hail	1.75 in.	0	0	\$0	\$0
<i>MT Carmel</i>	2/3/2006	Hail	0.75 in.	0	0	\$0	\$0
<i>Hebron</i>	5/8/2006	Hail	1.50 in.	0	0	\$0	\$0
<i>Oak Vale</i>	5/8/2006	Hail	0.88 in.	0	0	\$0	\$0
<i>Hebron</i>	5/9/2006	Hail	0.88 in.	0	0	\$0	\$0
<i>Oak Vale</i>	7/19/2006	Hail	0.75 in.	0	0	\$0	\$0
<i>Oak Vale</i>	1/10/2008	Hail	0.88 in.	0	0	\$0	\$0
<i>Hebron</i>	2/21/2008	Hail	1.75 in.	0	0	\$0	\$0
<i>Gwinville</i>	7/29/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Terrell</i>	12/9/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Carson</i>	3/27/2008	Hail	0.88 in.	0	0	\$0	\$0
<i>Hathorn</i>	4/2/2009	Hail	0.75 in.	0	0	\$0	\$0

Lucas	5/5/2009	Hail	0.88 in.	0	0	\$0	\$0
Lucas	5/12/2009	Hail	0.88 in.	0	0	\$0	\$0
Gwinville	8/15/2012	Hail	1 in.	0	0	\$0	\$0
Hathorn	2/10/2013	Hail	1 in.	0	0	\$0	\$0
Hebron	3/18/2013	Hail	1.75 in.	0	0	\$5,000	\$0
MT Carmel	3/18/2013	Hail	1 in.	0	0	\$1,000	\$0
MT Carmel	1/3/2015	Lightning	--	0	0	\$10,000	\$0
Gwinville	3/3/2016	Hail	0.75 in.	0	0	\$0	\$0
Lucas	3/9/2017	Hail	1 in.	0	0	\$0	\$0
Terrell	4/30/2017	Lightning	--	0	1	\$25,000	\$0
Gwinville	4/22/2020	Hail	1 in.	0	0	\$0	\$0
Carson	5/27/2020	Hail	1.75 in.	0	0	\$10,000	\$0
Carson	4/17/2022	Hail	1.25 in.	0	0	\$25,000	\$0
Carson	11/29/2022	Hail	1.75 in.	0	0	\$50,000	\$0
Terrell	11/29/2022	Hail	1 in.	0	0	\$0	\$0
Oak Vale	5/11/2023	Hail	1 in.	0	0	\$50,000	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Jefferson Davis County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there was not a high number of historical lightning events reported in Jefferson Davis County via NCEI data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), Jefferson Davis County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year. Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county in crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

D.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Jefferson Davis County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that Jefferson Davis County is uniformly exposed to this hazard.

HISTORICAL OCCURRENCES

Tornadoes resulted in seven disaster declarations in Jefferson Davis County in 1992, 2003, 2009, 2013, twice in 2020, and 2023. According to the National Centers for Environmental Information, there have been a total of 30 recorded tornado events in Jefferson Davis County since 2000 (**Table D.19**), resulting in over \$32.6 million in property and crop damages. In addition, 6 injuries 4 deaths were reported. The magnitude of these tornadoes ranges from F0 to F4 in intensity, although an F5 event is possible. Detailed information on historic tornado events can be found in **Table D.20**.

TABLE D.19: SUMMARY OF TORNADO OCCURRENCES IN JEFFERSON DAVIS COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Bassfield</i>	9	4	4	\$18,224,000	\$2,500,000
<i>Prentiss</i>	4	0	0	\$235,000	\$0
<i>Unincorporated Area</i>	17	0	0	\$9,199,000	\$2,500,000
County Total:	30	4	6	\$27,658,000	\$5,000,000

TABLE D.20: HISTORICAL TORNADO IMPACTS IN JEFFERSON DAVIS COUNTY

Location	Date	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
Town of Bassfield						
<i>Bassfield</i>	11/27/2003	F1	0	0	\$15,000	\$0
<i>Bassfield</i>	10/16/2006	F0	0	0	\$0	\$0
<i>Bassfield</i>	2/13/2007	EF0	0	0	\$5,000	\$0
<i>Bassfield</i>	9/1/2008	EF0	0	0	1,000	\$0
<i>Bassfield</i>	11/16/2011	EF1	0	0	\$100,000	\$0
<i>Bassfield</i>	4/12/2020	EF4	4	4	\$18,000,000	\$2,500,000
<i>Bassfield</i>	11/29/2022	EF0	0	0	\$3,000	\$0
<i>Bassfield</i>	11/29/2022	EF1	0	0	60,000	\$0
<i>Bassfield</i>	2/16/2023	EF0	0	0	\$40,000	\$0
Town of Prentiss						
<i>Prentiss</i>	5/1/2004	F1	0	0	\$30,000	\$0
<i>Prentiss Airport</i>	12/9/2008	EF1	0	0	\$100,000	\$0
<i>Prentiss</i>	12/24/2020	EF0	0	0	\$30,000	\$0
<i>Prentiss</i>	5/18/2021	EF0	0	0	\$75,000	\$0
Unincorporated Area in Jefferson Davis County						
<i>Melba</i>	2/16/2001	F0	0	0	\$15,000	\$0
<i>Hebron</i>	3/26/2005	F1	0	0	\$20,000	\$0
<i>Carson</i>	10/17/2007	EF1	0	0	\$100,000	\$0
<i>Gwinville</i>	5/3/2009	EF1	0	0	\$2,000	\$0

Terrell	3/2/2012	EF0	0	0	\$60,000	\$0
Hathorn	2/21/2013	EF2	0	0	\$175,000	\$0
Lucas	7/10/2016	EF1	0	0	\$110,000	\$0
Terrell	8/30/2017	EF0	0	0	\$15,000	\$0
Hebron & MT Carmel	4/6/2018	EF1	0	0	\$35,000	\$0
Lucas	12/16/2019	EF1	0	1	\$500,000	\$0
MT Carmel	3/4/2020	EF0	0	0	\$1,000	\$0
Hathorn	4/12/2020	EF1	0	0	\$1,000,000	\$0
Oak Vale	4/12/2020	EF3	0	1	\$7,000,000	\$2,500,000
MT. Carmel	4/5/2022	EF1	0	0	\$40,000	\$0
MT Carmel	4/5/2022	EF2	0	0	\$100,000	\$0
Hathorn	11/29/2022	EF0	0	0	\$1,000	\$0
Gwinville	12/14/2022	EF1	0	0	\$25,000	\$0

Source: NCED/NOAA

Anecdotes are available from NCEI for the major storms that have impacted that area as found below:

December 16, 2019—This tornado started just north-northwest of the town of Silver Creek off of Stephens Cemetery Road and then crossed Highway 43. A barn and shed were initially damaged along with some downed trees. Damage to trees increased along Highway 43 with several snapped. The tornado then moved into the Silver Creek bottom then crossed Daughdrill Road, where more trees were snapped/uprooted along with downed power lines. One home had minor roof damage with a group of 3 chicken houses damaged, and one house destroyed. The tornado then crossed into Jefferson Davis County and intensified. As it crossed Spring Hill Church Road, trees and power lines were down. One home on blocks was destroyed. An area of woods adjacent to the home sustained significant tree damage where all the trees were snapped in a focused corridor from what appears to be an intense vortex. An EF2 rating was given here. The tornado then crossed Zion Hill Church Road, although the tornado weakened a bit at this point, it still snapped and uprooted numerous trees. The tornado then moved along Gholar Road. In this location, the tornado transitioned and took a hard right. While doing so, another intense vortex occurred within otherwise standard EF0, EF1 tree damage. The noted vortex destroyed a mobile home and threw a Nissan truck about 30 yds; one injury occurred here as the person was in the mobile home and was thrown out of it. Shortly after the hard right deviation, another intense vortex developed, and more extensive tree damage occurred just east of Sophia Sutton Road. As the tornado crossed Highway 42, it reached peak intensity with winds around 130 mph. Here a large cinder block store was demolished, and a well-built brick home had the roof removed. Multiple power poles were broken along with numerous trees snapped/uprooted. The tornado continued east-northeast generally along portions of Double Ponds Road. Here more trees were snapped and uprooted. The tornado crossed Highway 13 and then dissipated at Sugar Ridge Road but not before snapping a few tree limbs. Maximum winds were 130 mph. Total path length was 10.92 miles.

April 12, 2020—This violent, deadly tornado traveled 68 miles through parts of five counties including southeastern Jefferson Davis, central Covington, northwestern Jones, southeastern Jasper, and western Clarke counties. Locations impacted by this tornado include Bassfield, the areas between Collins and Seminary, Soso, Moss, Heidelberg, and Pachuta. This tornado is preliminarily rated EF4 with an estimated peak wind of 190 MPH east of Bassfield in southwestern Jefferson Davis County. Additional EF4 damage was noted near Soso in Jones County and at Moss in Jasper County. The maximum path width was 2.25 miles in the vicinity of Hughes Road west of Seminary in western Covington County. At this width, the tornado ranks 3rd widest in the official NOAA United States tornado database behind the El Reno, OK tornado of 2013 (2.6 mi) and the Hallam, NE tornado of 2004 (2.5 mi). This tornado now ranks as the widest on record in the state of Mississippi, surpassing the Yazoo City, MS tornado of 2010 (1.75 mi). Eight lives were lost in this tornado, and there was an undetermined number of additional injuries. Additional details on the damage path and area of most significant damage follow.

The tornado began south of Bassfield along Bassfield Cemetery Road, uprooting trees and resulting in relatively minor structural damage. As it proceeded northeastward, the diameter of the wind field steadily increased and the percentage of snapped trees in the center of the vortex increased considerably as the tornado approached MS Highway 42. At this location, two homes sustained major roof damage.

Tornado intensity then began to increase quickly, with EF3 damage as it crossed Hosey Mikell Road, completely demolishing a mobile home and scattering the debris field over 300 yards downwind. Tree damage also ramped up significantly beyond this location, with low end EF4 damage in a narrow swath of nearly complete tree destruction along the center of the tornado vortex and increasing instances of debarking of trees as the tornado moved across Pitts Lane and Reese Road.

Outside of this most intense corridor of tornadic winds, EF1 and EF2 damage to trees and structures was occurring over a wide area, up one mile wide. In addition, both ground surveys and aerial photography indicated the presence of multiple vortices at times. Intense damage continued as the tornado crossed the intersection of Graves Key Road and Harper Road, where a cinder block small business building was destroyed, with much of the slab swept clean. Four fatalities occurred at this location. Nearby, a mobile home was completely destroyed, with the undercarriage wrapped around the small set of trees that remained standing downwind. Debarking of some trees was again noted and continued along the tornado path across Claude Booth Road.

The tornado reached its peak intensity as it moved across a field north of Graves Key Road. At this location, the foundation of a wood frame and metal roof cabin was swept clean. A truck parked at this cabin was tossed approximately 300 yards downwind, and trees that remained standing at this site were partially debarked. Though the path of the intense tornado vortex through the field surrounding this cabin was clearly visible, significant scouring was not noted. The tornado continued to remain violent and grow in size, nearly 1.5 miles wide, as it crossed Good Hope Road and continued to track toward the Bouie River. Here, a large swath of extreme tree damage was noted as the whole forest was leveled. An intense core of the tornado was evident by debarking of trees along a well-defined center line or sub-vortex feature. Extreme debarking was noted around Willie Fortenberry Road. In this general area, several farmers reported roughly 60 cattle were killed by the tornado. The tornado grew larger as it entered Covington County and peaked in width in the vicinity of Hughes Road. Maximum width was measured at 2.25 miles. The incredible expansive tree damage continued along the path with millions of trees damaged. Several dozen structures were damaged or destroyed between McGowen Circle to US 49. Numerous chicken houses (23-30) were destroyed here as well. A section of Cold Springs Road looked to see another sub-vortex and it was here another area of EF4 damage occurred to a home.

As the tornado crossed US 49, the width decreased to 1.7 miles, but it remained quite strong with mid to upper end EF3 damage noted. Extreme tree damage persisted in large swaths along the path. In addition, a few dozen structures were damaged between US 49 and MS Highway 588. This consisted of varying degrees of damage from EF1 to EF3 levels. The tornado entered northwestern Jones County near the Centerville community where several homes had shingles blown off or parts of the decking exposed. A mobile home along Tommy Pickering Road was thrown and separated from the frame, with the highest winds in the EF2 range. As the storm moved northeast across US 84, trees were uprooted and snapped. Several homes on both sides of the highway had decking exposed or shingles blown off. At least one mobile home was destroyed along US 84. The tornado intensified to an EF3 causing significant damage to multiple homes along Danny Hillburn Road, where large sections of roofing was removed. Between US 84 and MS Highway 29, several mobile homes were completely destroyed and at least one separated from the frame. Several homes had one or more exterior walls collapsed or large sections of the roof removed. The tornado continued to cause widespread destruction as it moved into the town of Soso. Several homes and churches received significant damage. Large swaths of trees were snapped and uprooted along MS Highway 29. Near the center of town, a fire station was heavily damaged when the overhead doors collapsed, and portions of the roof were removed. Numerous homes had roofing removed and exposed decking. The worst damage occurred along MS Highway 28 where a convenience store was destroyed, and several other cinder block structures were heavily damaged when the storm intensified to low end EF-4. The tornado continued to mow down large swaths of trees and caused major uplift and loss of roofing to numerous homes as it moved northeast toward MS Highway 15. Along Mathews Road numerous mobile homes and several outbuildings were completely destroyed.

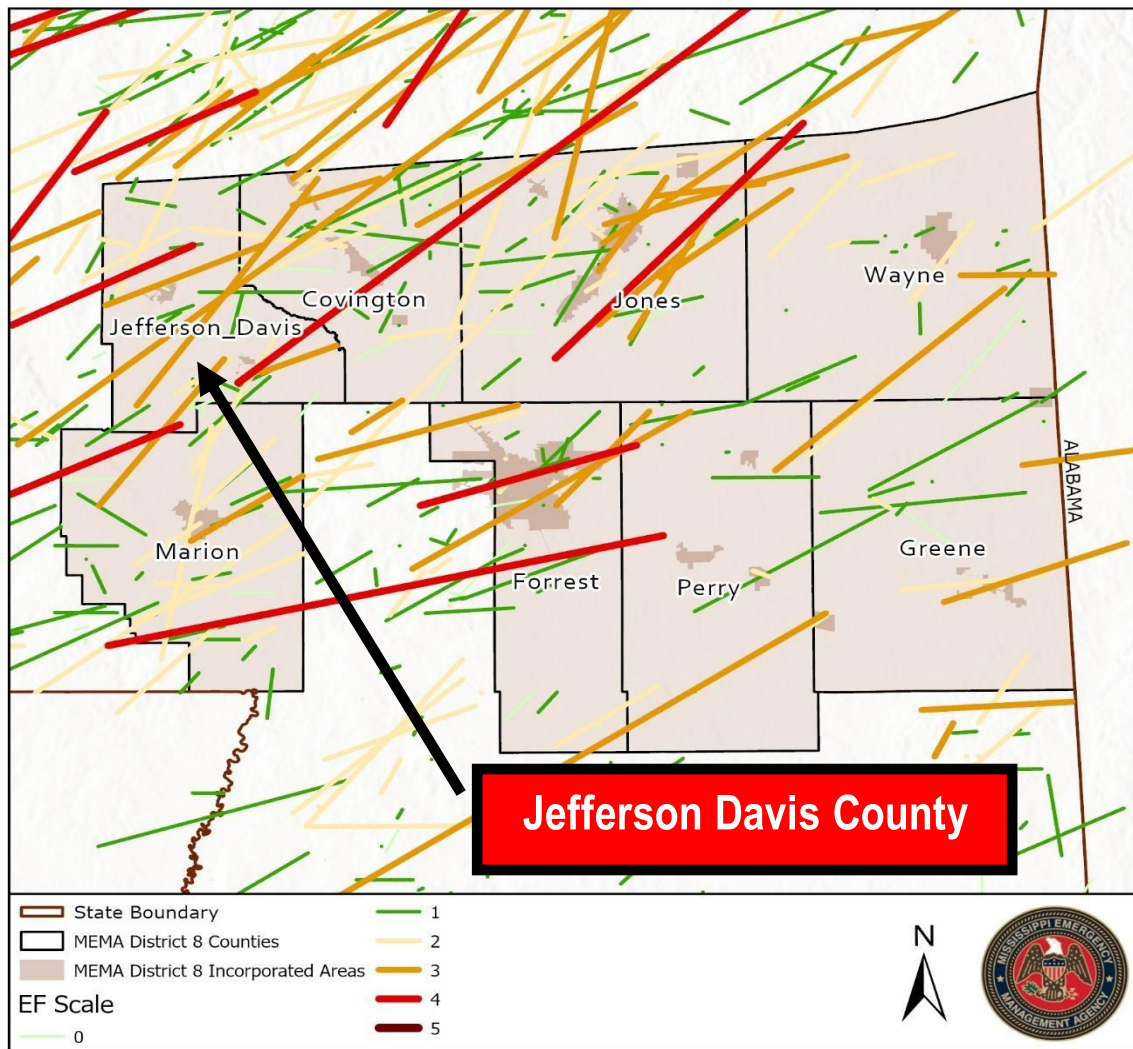
The tornado intensified to a low end EF4 as it moved into the Moss community, where winds near 175 mph resulted in widespread devastation. Nearly every structure in the community was damaged with the most significant damage occurring along or near MS Highway 537. About half of the First Baptist Church of Moss was completely leveled. Numerous homes were destroyed or had major roofing loss or uplifted. A small pick-up truck was thrown several hundred yards and completely destroyed. In addition, multiple mobile homes were completely demolished.

As the storm tracked toward I-59 a few miles west of Heidelberg, hundreds of trees were mowed down, outbuildings were destroyed. Several homes and mobile homes had metal roofing peeled back or decking exposed. Large swaths of trees were snapped for several miles including some along I-59 between the Heidelberg and Vossburg exits. Swaths of tree damage continued into the Barnett community. In the town of Pachuta there was scattered tree damage, and the metal roofing was peeled off of a church.

About two miles north of Pachuta, the damage became sporadic, and the tornado lifted in a wooded area along County Road 130. The total path length was 67.43 miles. The maximum estimated wind speed of both the tornado and in Jefferson Davis County was 190mph. This outbreak cost around \$31 Million in damages and caused 4 fatalities and 5 injuries.

April 5, 2022—A tornado began around Al Williamson Road where trees were blown down. It then traveled along E D Gray Road where it snapped and uprooted numerous hardwood and softwood trees, caused roof damage to a few mobile homes, and caused some minor damage to a barn. The tornado intensified to EF-2 strength and caused damage along Clem Road including uprooted and snapped hardwood trees. A home in this area was damaged, with some of the roofing removed and the porch awning blown away. The more significant damage at this location was to an outbuilding that had significant roof damage with debris strewn into a nearby field. A power pole across the street was snapped, and several trees were snapped and uprooted along 56 acres of property. The tornado then crossed Atwood Road where it snapped a power pole and caused additional tree damage. The tornado then crossed into Covington County. The estimated maximum wind gust for the portion of this tornado in Jefferson Davis County was 120 mph. The total path length of this tornado was 14.99 miles across both counties.

FIGURE D.8: TORNADOES IN JEFFERSON DAVIS COUNTY 2000-2024



PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Jefferson Davis County. The probability of future tornado occurrences affecting Jefferson Davis County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

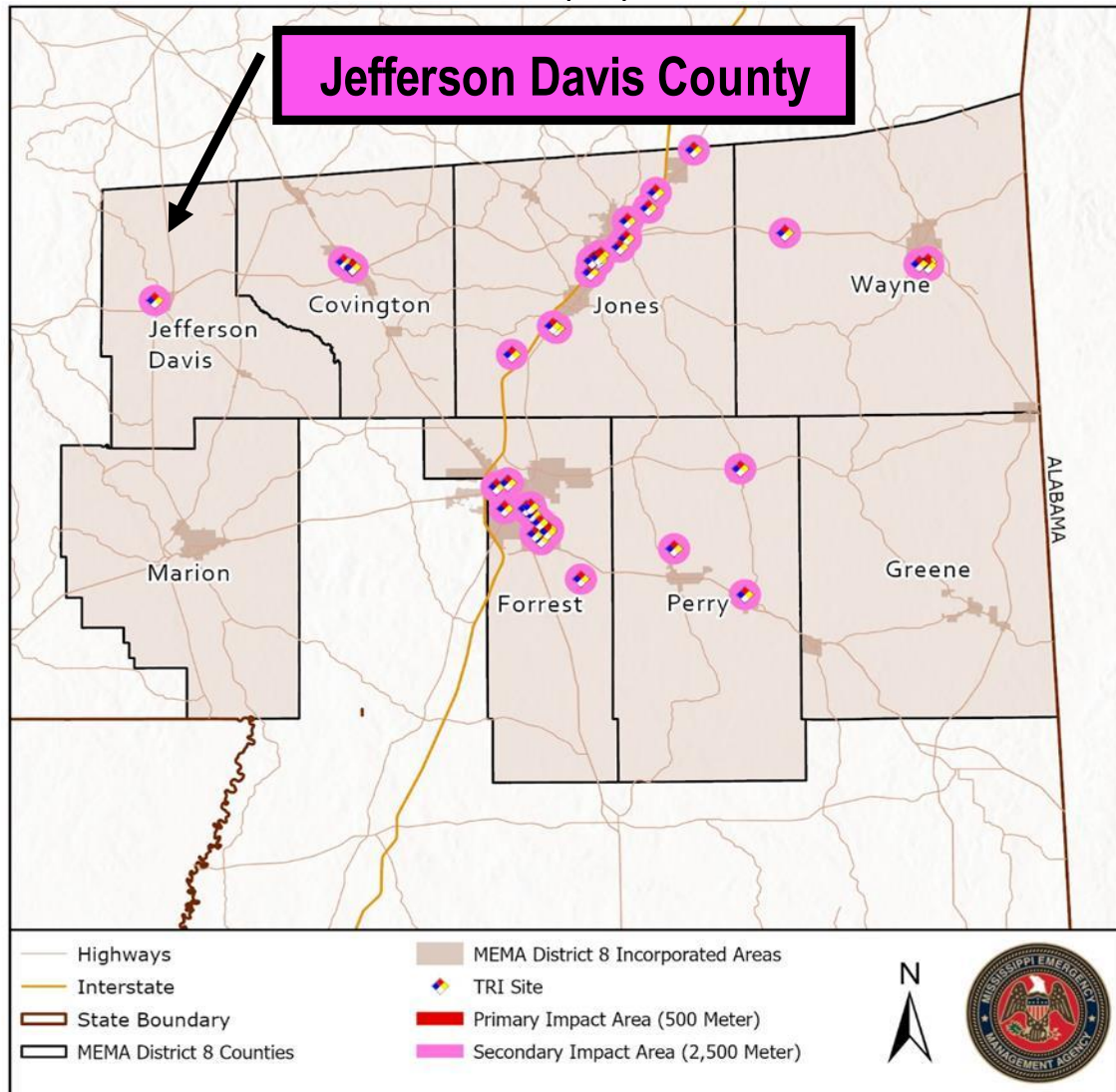
D.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Jefferson Davis County has one TRI sites as shown in **Figure D.9**.

FIGURE D.9: TOXIC RELEASE INVENTORY (TRI) SITES IN JEFFERSON DAVIS COUNTY

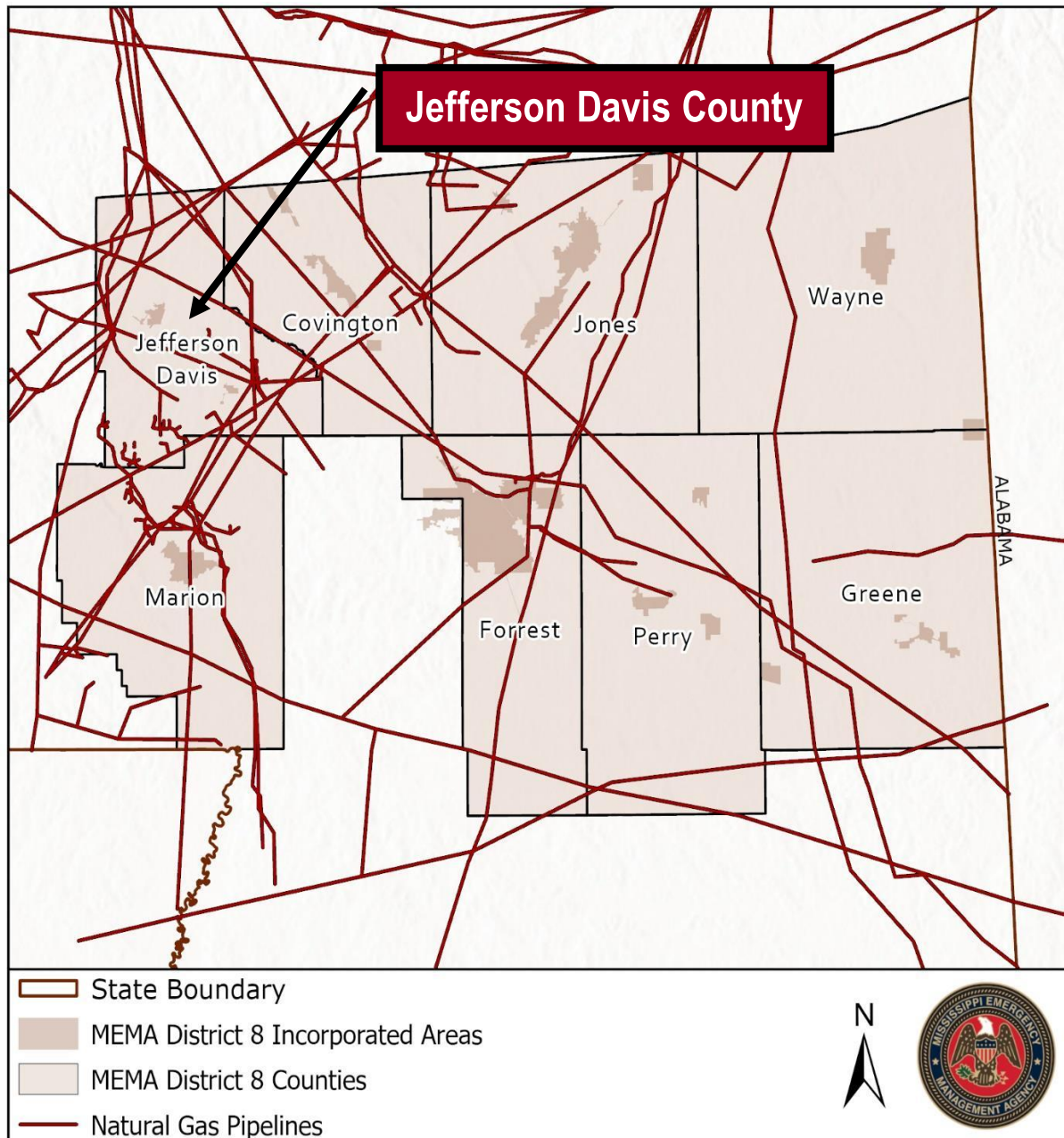


In addition to "fixed" hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

There are two distinct types of pipelines that are used in the transport of potentially hazardous materials, gas lines and hazardous liquid lines. **Figure A.10** shows the trunk lines for each of these material types but does not show the gathering or distribution pipelines. The natural gas lines are in red/maroon. There are no changes to this data since the last plan.

FIGURE D.10: PIPELINES IN JEFFERSON DAVIS COUNTY



Meth Labs

Meth lab incidents have occurred at various times throughout Jefferson Davis County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

HISTORICAL OCCURRENCES

Hazardous Materials

There has been a total of one recorded HAZMAT incident in Jefferson Davis County since 2003, resulting in \$55,300 in property damages. **Table D.21** presents detailed information on historic HAZMAT incidents in Jefferson Davis County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

Location	Date	Report Number	Mode	Serious Incident	Deaths/Injuries	Damages	Quantity Released
Bassfield	--	--	--	--	--	--	--
Prentiss	4/22/2003	I-2003120943	Highway	YES	0/0	\$55,300	200 LGA
Unincorporated Area	--	--	--	--	--	--	--
Jefferson Davis County	Total= 1				0/0	\$55,300	200 LGA

Source: PHMSA

Pipelines

Between 2002 and 2024 there have been no pipeline incidents in Jefferson Davis County.

Meth Labs

Meth lab incidents have occurred at various times throughout Jefferson Davis County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

Since there are no toxic release inventory sites in Jefferson Davis County and there has only been one roadway or rail incident, it is unlikely that a hazardous material incident may occur in the county (less than one percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Although there one TRI site and a very limited record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and narrow roadways.

Pipelines

Although there have been no major pipeline incidents, there are 409 miles of gas and hazardous liquid lines in the region. Therefore, it is anticipated that there will be future pipeline incidents in Jefferson Davis County, and they are considered possible.

Meth Labs

Meth lab incidents will likely continue to occur throughout Jefferson Davis County. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

D.2.14 Cyber Terrorism

A cyber-attack is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or

maliciously motivated attack against informational systems. A **cyberterrorism event** can impact one or more of Jefferson Davis County's and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The **cyberterrorism hazard** is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. **Targets of cyberterrorism** can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in in Jefferson Davis County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact for Jefferson Davis County. As such, the county will continue to be compelled to respond to cyberterrorisms in the future. The nature of these attacks is projected to evolve in sophistication over time. Jefferson Davis County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations.

The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

D.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. Jefferson Davis County chose to analyze this hazard after the devastating effects of COVID 19. The Covid virus mutated several times and reinfected certain populations. The Virus also

caused major socioeconomic disruption. COVID 19 was also the first Disaster Declaration of its time and affected the entire county.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if/when people are not able to operate and maintain them due to illness/quarantine. Many buildings may be shutdown, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates back to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted to the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused from a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Similar to other pandemics, this pandemic has two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and those with chronic respiratory, cardiac, neurological, or immunity conditions. Worldwide, it is estimated that 43 million to 89

million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Jefferson Davis County had 3,709 cases of COVID and 57 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have underlying health conditions.

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Webster County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154,pdf/SNSPlan.pdf>

D.2.15 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its “How-to” guidance document titled Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table D.22 describes the extent of each natural hazard identified for Jefferson Davis County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE D.22: EXTENT OF JEFFERSON DAVIS COUNTY HAZARDS

HAZARD	DESCRIPTION
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Tectonic Hazards

Earthquake

Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Jefferson Davis County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, USGS data shows Jefferson Davis County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

Mass-Movements

Landslide

As noted above in the landslide profile, there is no extensive history of landslides in Jefferson Davis County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout the county. There is also susceptibility throughout the county.

Expansive Soils

As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Jefferson Davis County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Jefferson Davis County.

Hydraulic Hazards

Drought

Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Jefferson Davis County has received this ranking four times over the twenty-four-year reporting period.

Floods

Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 11.2 percent of the total land area in Jefferson Davis County. Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at the Goines Draw near Prentiss in 1974. Water reached a discharge of 610 cubic feet per second and the stream gage height was recorded at 9.10 feet.

Dam Failure

Dam Failure extent is defined using the Mississippi Division of Environmental Quality criteria. Two dams are classified as high hazard in the county.

Meteorological Hazards

Hurricane and Tropical Storms

Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Jefferson Davis County was a Category 3 storm (Hurricane Katrina in 2005) which carried tropical force winds of 130 miles per hour upon arrival in the county.

Thunderstorms/ Hail/ Lightning/ Wind

Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Jefferson Davis County was last reported on May 13, 2024, at 96 knots (approximately 110mph). It should be noted that future events may exceed these historical occurrences.

Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Jefferson Davis County was 2.50 inches (last reported on March 26, 2023). It should be noted that future events may exceed this.

According to the Vaisala's flash density map, Jefferson Davis County is located in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.

Winter Storms

The extent of winter storms can be measured by the amount of snowfall received (in inches). Official long-term snow records are not kept for any areas in the *MEMA District 8 Region*. However, the greatest snowfall reported in Jackson (north of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.

Temperature Extremes/ Heat Wave

A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.

Tornado

Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Jefferson Davis County was an F4 (reported on April 12, 2020).

Biological Hazards

Pandemic

The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life.

Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019, and changed the way people view Pandemics. Jefferson Davis County had 3,709 cases of COVID and 57 deaths.

Other Natural Hazards	
Wildfire	Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by county from 2010-2023. The greatest number of fires to occur in Jefferson Davis County in any year was 135 in 2011. The greatest number of acres to burn in the county in a single year occurred in 2022 when 1021 acres were burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.
Erosion	The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Jefferson Davis County.
Climate Change	The extent Climate change will impact Jefferson Davis County is hard to estimate. It could cause more intense, frequent, and/or magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase so will property damage and possible loss of life.
Other Hazards	
Cyber Attack	The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damages depends on the demands of the cyberterrorist.
Hazard Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the county is 200 LGA released on the highway in Prentiss. It should be noted that larger events are possible. A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled. Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

In order to draw some meaningful planning conclusions on hazard risk for Jefferson Davis County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a “Priority Risk Index” (PRI). More information on the PRI and how it was calculated can be found in Section 5.16.2.

Table D.23 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating PRI values and making final determinations for the risk assessment.

TABLE D.23: SUMMARY OF PRI RESULTS FOR JEFFERSON DAVIS COUNTY

HAZARD	Category/Degree of Risk			
		Spatial	Warning	PRI

	Probability	Impact	Extent	Time	Duration	Score
Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/ Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/ High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Possible	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2

D.2.16 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Jefferson Davis County, including the PRI results and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table D.24). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of Jefferson Davis County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in *Section 6: Vulnerability Assessment* and below in *Section D.3*. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE D.24: CONCLUSIONS ON HAZARD RISK FOR JEFFERSON DAVIS COUNTY

High Risk	<i>Drought/Heat Wave</i> <i>Hurricane and Tropical Storm</i> <i>Thunderstorm/ High Wind</i> <i>Tornado</i> <i>Flood</i> <i>Lightning</i> <i>Pandemic</i>
Moderate Risk	<i>Climate Change</i> <i>Hail</i> <i>Pipeline Incident</i> <i>Hazardous Materials Incident</i> <i>Wildfire</i> <i>Dam Failure</i> <i>Winter Storm and Freeze</i>
Low Risk	<i>Expansive Soil</i> <i>Landslide</i> <i>Meth Lab Incident</i> <i>Pandemic</i> <i>Erosion</i> <i>Cyber Attack</i>

D.3 JEFFERSON DAVIS COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Jefferson Davis County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact

and expected amounts of damages caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in *Section 6: Vulnerability Assessment*.

D.3.1 Asset Inventory

Table D.25 lists the estimated number of improved properties and the total value of improvements for Jefferson Davis County and its participating jurisdictions (study area of vulnerability assessment). This data was obtained from HAZUS since digital parcel data was not available in this county.

TABLE D.25: IMPROVED PROPERTY IN JEFFERSON DAVIS COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Jefferson Davis County	5,782	\$852,147,000

Table D.26 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Jefferson Davis County. HAZUS was used to obtain the critical facilities for the county and this data was modified to reflect recent changes. In addition, **Figure D.11** shows the locations of essential facilities in Jefferson Davis County. **Table D.27** shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

TABLE D.26: CRITICAL FACILITY INVENTORY IN JEFFERSON DAVIS COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools
<i>Bassfield</i>	2	1	0	--	2
<i>Prentiss</i>	2	2	1	1	4
<i>Unincorporated Area</i>	6	0	0	--	6
Jefferson Davis County Total:	11	3	1	1	12

Table D.27 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an "X").

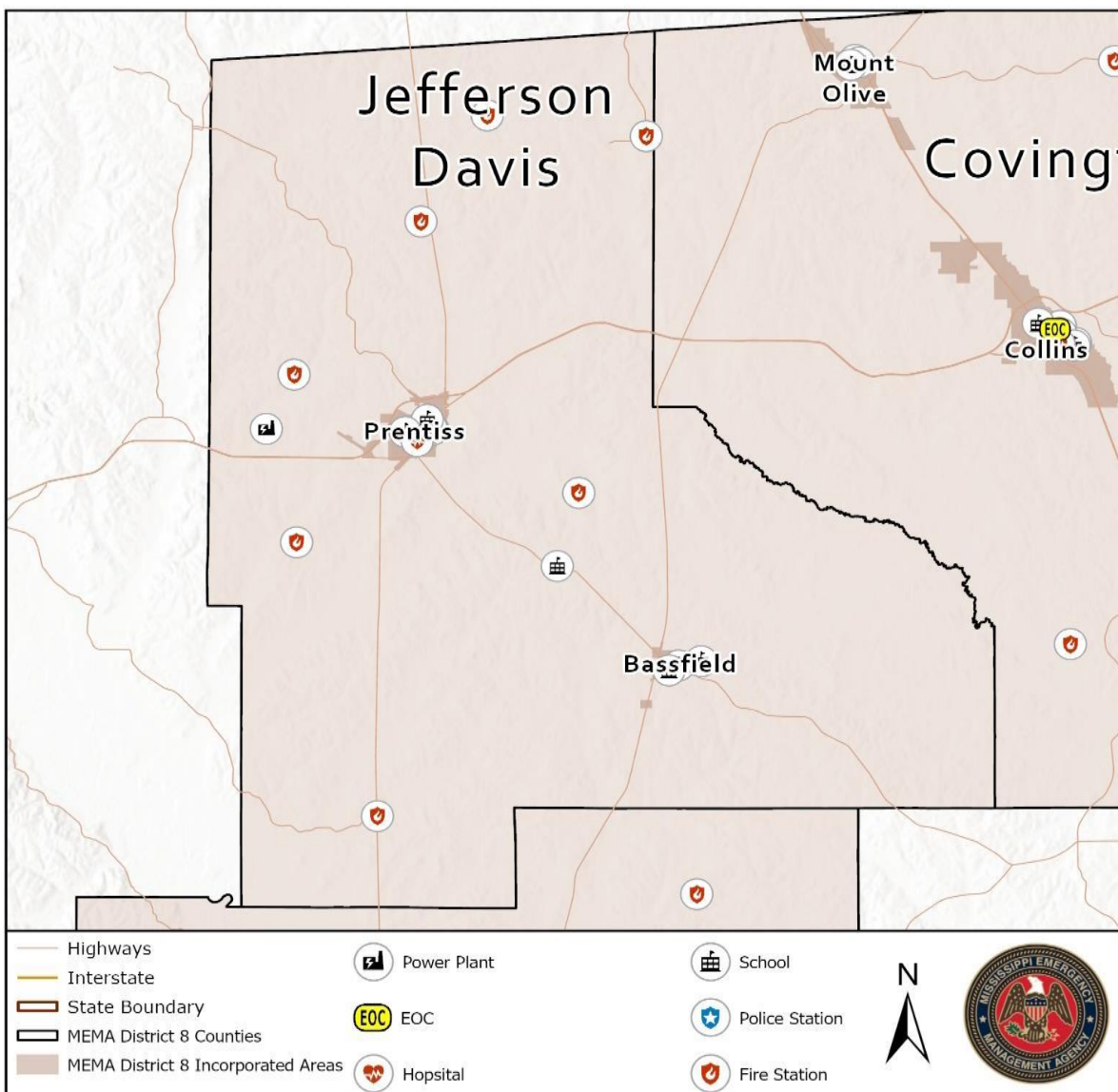
TABLE D.27: CRITICAL FACILITIES AND THEIR VULNERABILITY TO CERTAIN HAZARDS

		Other			Atmospheric					Geologic		Hydrologic		
Facility	Facility	WHP	Fixed HAZMAT	Mobile HAZMAT	Drought	Thunder-storm.	Hurricane /Tropical	Tornado	Winter Storm &	Earth-	Land-	Dam & Levee	100-Year	500-Year

Name	Type	Hazard	500-2500M Roads & Rails	500-2500M Roads & Rails		Lightning, & Hail	Storm		Freeze	quake	slide	Failure	Flood	Flood
Jefferson Davis County Critical Facilities														
Bassfield Police Dept.	Police Station	Non-burnable			X	X	X		X	X				
Bassfield VFD	Fire Station	Low			X	X	X		X	X				
G W Carver Elem & Safe Room	School	HIGH			X	X	X		X	X				
Good Hope Elem. School	School	Moderate			X	X	X	X	X	X				
Good Hope Fire Dept.	Fire Station	HIGH			X	X	X		X	X				
Jefferson Davis High School	School	HIGH			X	X	X		X	X				
Bassfield Fire Dept.	Fire Station	Non-burnable			X	X	X		X	X				
JDCS Learning Center	School	HIGH			X	X	X		X	X				
Jeff Davis CO VO Tech. & SR	School	HIGH			X	X	X		X	X				
Red House Fire Dept.	Fire Station	HIGH			X	X	X		X	X				
Oakvale VFD/ Society Hill	Fire Station	Non-burnable			X	X	X		X	X				
Clem VFD/ Williamson Mill	Fire Station	HIGH			X	X	X		X	X				
Granby Fire Dept.	Fire Station	Moderate			X	X	X		X	X				
HWY 84 West Fire Station Inc	Fire Dept.	HIGH		X	X	X	X		X	X				
HWY 84 West Fire Station	Fire Station	Low			X	X	X		X	X				
J E Johnson Elem & Safe Room	School	HIGH		X	X	X	X	X	X	X				
J E Johnson Head Start	School	HIGH		X	X	X	X	X	X	X				
Jefferson Davis CO Admin. Build.	Govt.	Non-burnable		X	X	X	X		X	X				
Jefferson Davis CO Courthouse	Govt.	Non-burnable		X	X	X	X		X	X				
Jefferson Davis CO EMA	EOC	Non-burnable		X	X	X	X	X	X	X				
Jefferson Davis CO Sheriff's Office	Police Dept.	Non-burnable		X	X	X	X		X	X				
MS Dept. of Corrections	Prison	Non-burnable		X	X	X	X		X	X				
Prentiss Christian Sch. & Safe Room	School	Moderate		X	X	X	X	X	X	X				
Prentiss City Hall	City Hall	Non-burnable		X	X	X	X	X	X	X				
Prentiss Fire Dept.	Fire Station	Non-burnable		X	X	X	X	X	X	X				
Prentiss Institute	Safe Room	Non-burnable		X	X	X	X		X	X				
			Other			Atmospheric					Geologic		Hydrologic	
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads &	Mobile HAZMAT 500-2500M Roads &	Drought	Thunder -storm, Lightning,	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood

			Rails	Rails		& Hail								
Jefferson Davis County Critical Facilities Continued														
Prentiss Reg. Extended Care	Care Facility	Non-burnable		X	X	X	X	X	X	X	X			
Prentiss Reg. Hospital	Care Facility	HIGH		X	X	X	X	X	X	X	X			
Prentiss Senior High School	School	Non-burnable		X	X	X	X	X	X	X	X			
Prentiss Fire/Police Dept.	Fire/Police Station	HIGH		X	X	X	X		X	X				
New Medinah Islamic School	School	Moderate			X	X	X		X	X				

FIGURE D.11: CRITICAL FACILITY LOCATIONS IN JEFFERSON DAVIS COUNTY



D3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Jefferson Davis County that are potentially at risk to these hazards.

Table D.28 lists the population by jurisdiction according to U.S. Census 2020 population. The total population in Jefferson Davis County according to Census data is 11,321 persons. If the decline in population continues to decline it could lead to a decline in the population vulnerability. Additional population estimates are presented above in **Section D.1**.

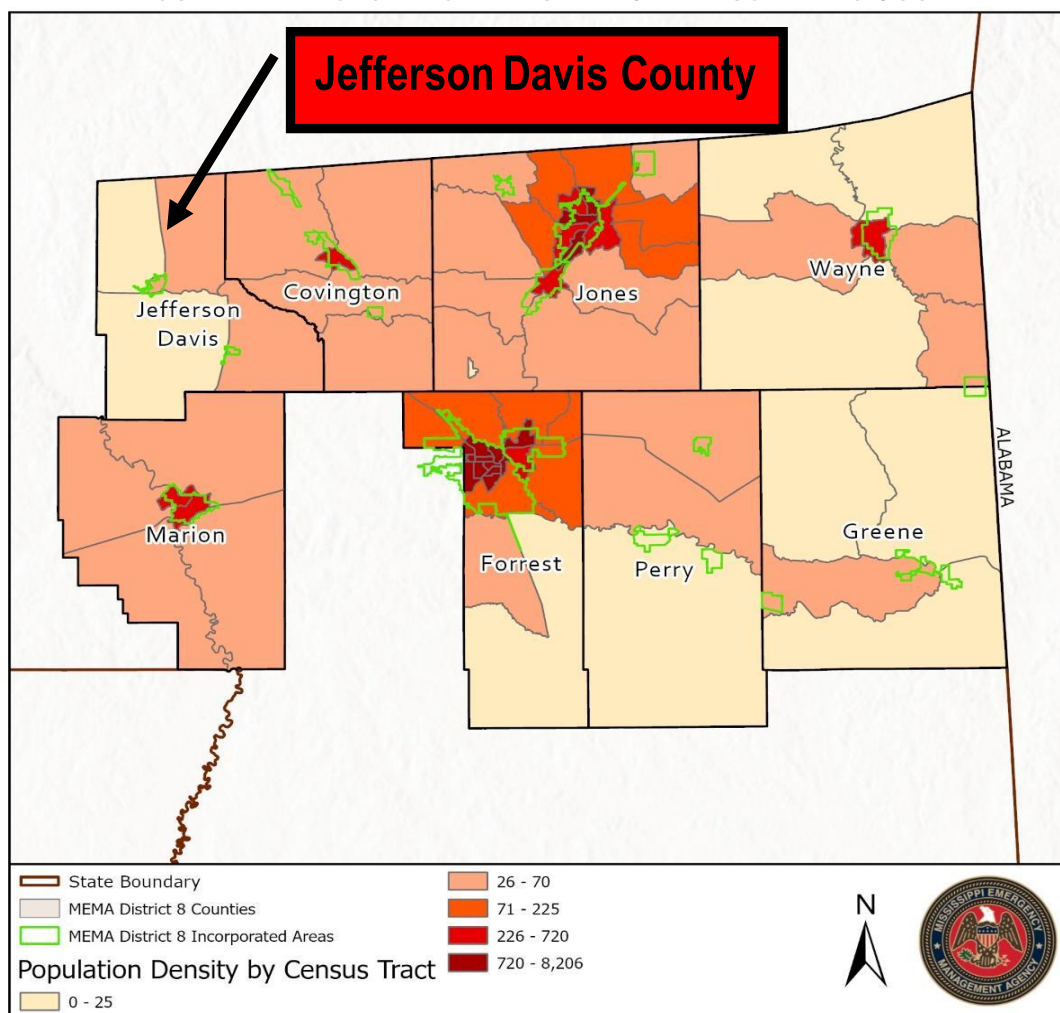
TABLE D.28: TOTAL POPULATION IN JEFFERSON DAVIS COUNTY

Jurisdiction	2010 Census	2020 Census
Jefferson Davis County Total:	12,487	11,321
<i>Bassfield</i>	254	192
<i>Prentiss</i>	1,081	976
<i>Unincorporated Area</i>	11,152	10,153

Source: US Census Bureau

In addition, **Figure D.12** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020.

FIGURE D.12: POPULATION DENSITY IN JEFFERSON DAVIS COUNTY



D.3.3 Vulnerability Assessment Results

As noted in *Section 6: Vulnerability Assessment*, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Jefferson Davis County, are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table D.23**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

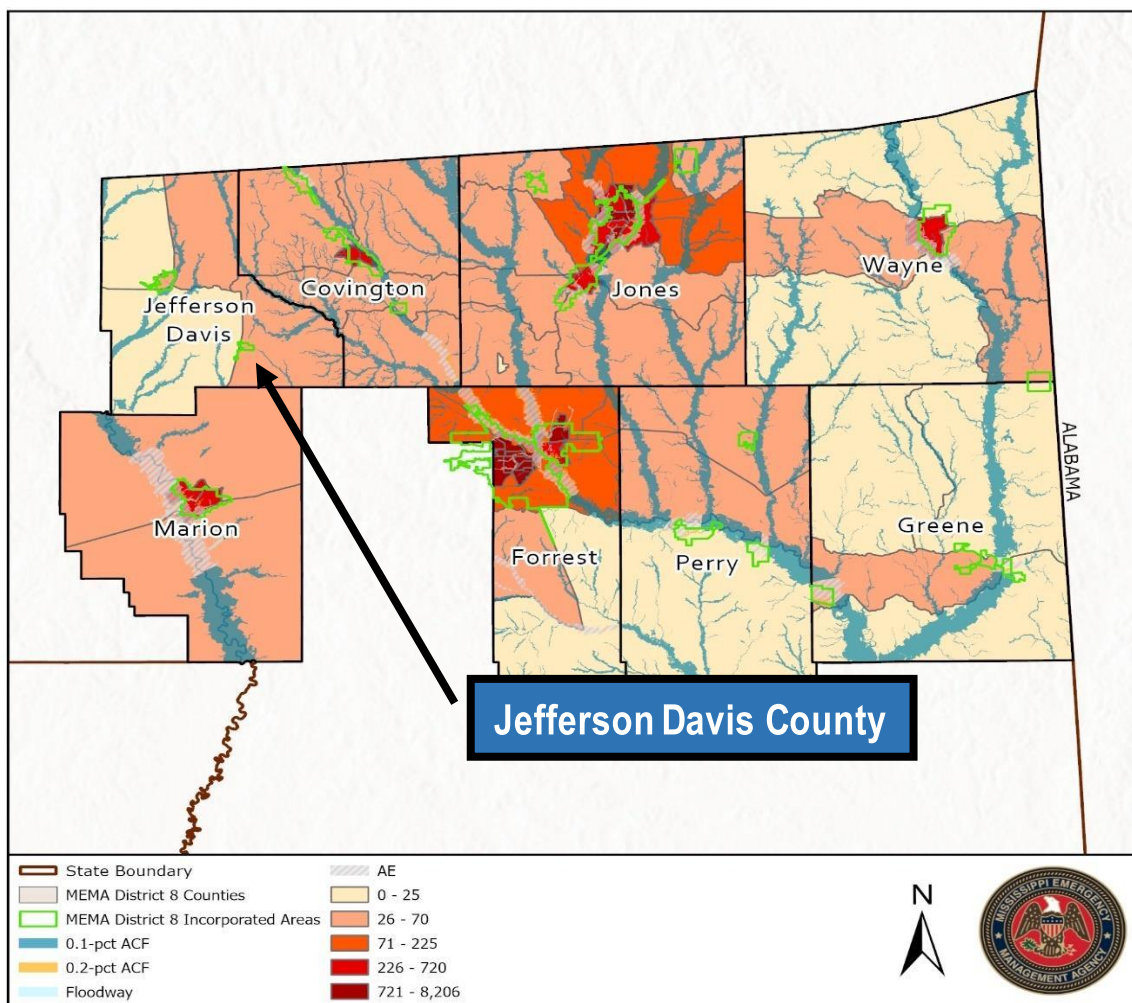
FLOOD

Historical evidence indicates that Jefferson Davis County is susceptible to flood events. A total of 32 flood events have been reported by the National Centers for Environmental Information resulting in \$1.384 million in damages.

Social Vulnerability

Since 2020 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data. **Figure D.13** is presented to gain a better understanding of at-risk population.

FIGURE D.13: POPULATION DENSITY NEAR FLOODPLAINS



Critical Facilities

The critical facility analysis revealed that there are no critical facilities located in the Jefferson Davis County 1.0-percent annual chance floodplain and 0.2-percent annual chance floodplain based on FEMAFIRM boundaries and GIS analysis. A list of specific critical facilities and their associated risk can be found in **Table D.27**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Jefferson Davis County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

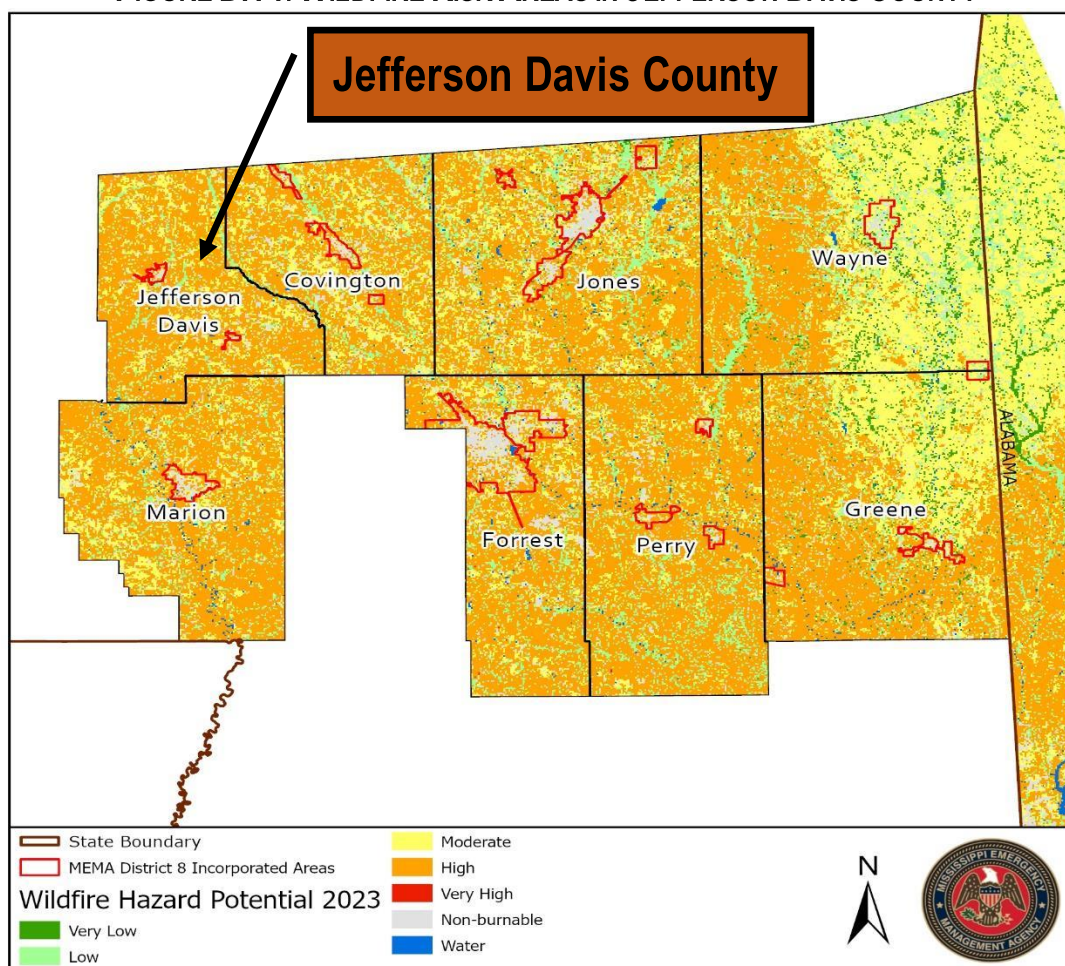
WILDFIRE

Although historical evidence indicates that Jefferson Davis County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential (WHP) data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure D.14 shows the wildfire hazard potential for Jefferson Davis County. Most of the planning areas falls within the low to high category.

FIGURE D.14: WILDFIRE RISK AREAS IN JEFFERSON DAVIS COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there are three critical facilities located in an area considered low risk valued at nearly \$26,000. There are six critical facilities located in an area considered moderate risk valued at \$8.5 M, and there is an additional nine structures located in an area considered high risk valued at nearly \$15M. It should be noted, however, that several factors could impact the spread of a wildfire putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table D.27**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Jefferson Davis County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 32 critical facilities identified for Jefferson Davis County, valued at \$54,124,051. All are vulnerable to the earthquake hazard.

An earthquake has the potential to impact all existing and future buildings, facilities, and populations in Jefferson Davis County. While Jefferson Davis County may not experience a large earthquake, localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table D.27**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Jefferson Davis County has an elevated risk to the hurricane and tropical storm hazard. Several tracks have come near or traversed through the county, as shown and discussed in *Section D.2.10*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There are an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amounts of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of 2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Jefferson Davis County, all critical facilities are considered to be at risk. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. There are 32 critical facilities identified for Jefferson Davis County, valued at \$54,124,051. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation action for especially vulnerable and/or critical facilities to mitigation against the effects of the hurricane hazard. A list of specific critical facilities can be found in **Table D.27**.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in Jefferson Davis County. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

HAZARDOUS MATERIALS INCIDENT

Although historical evidence and existing Toxic Release Inventory sites indicate that Jefferson Davis County is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS intersection analysis was used for fixed and mobile areas and parcels. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Jefferson Davis County, along with buffers, were used for analysis. However, the data revealed that there is one located in Jefferson Davis County. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis. **Figure D.15** shows the areas used for mobile toxic release buffer analysis. The mobile toxic release buffer data did not change since the last plan update.

FIGURE D.16: MOBILE HAZMAT BUFFERS IN JEFFERSON DAVIS COUNTY

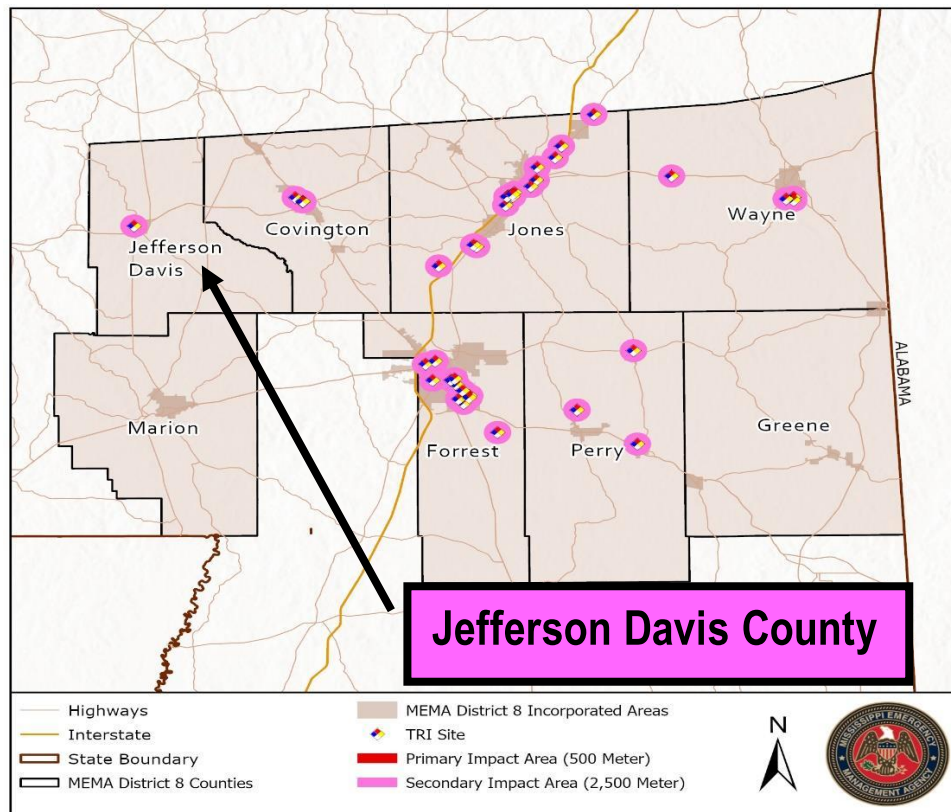
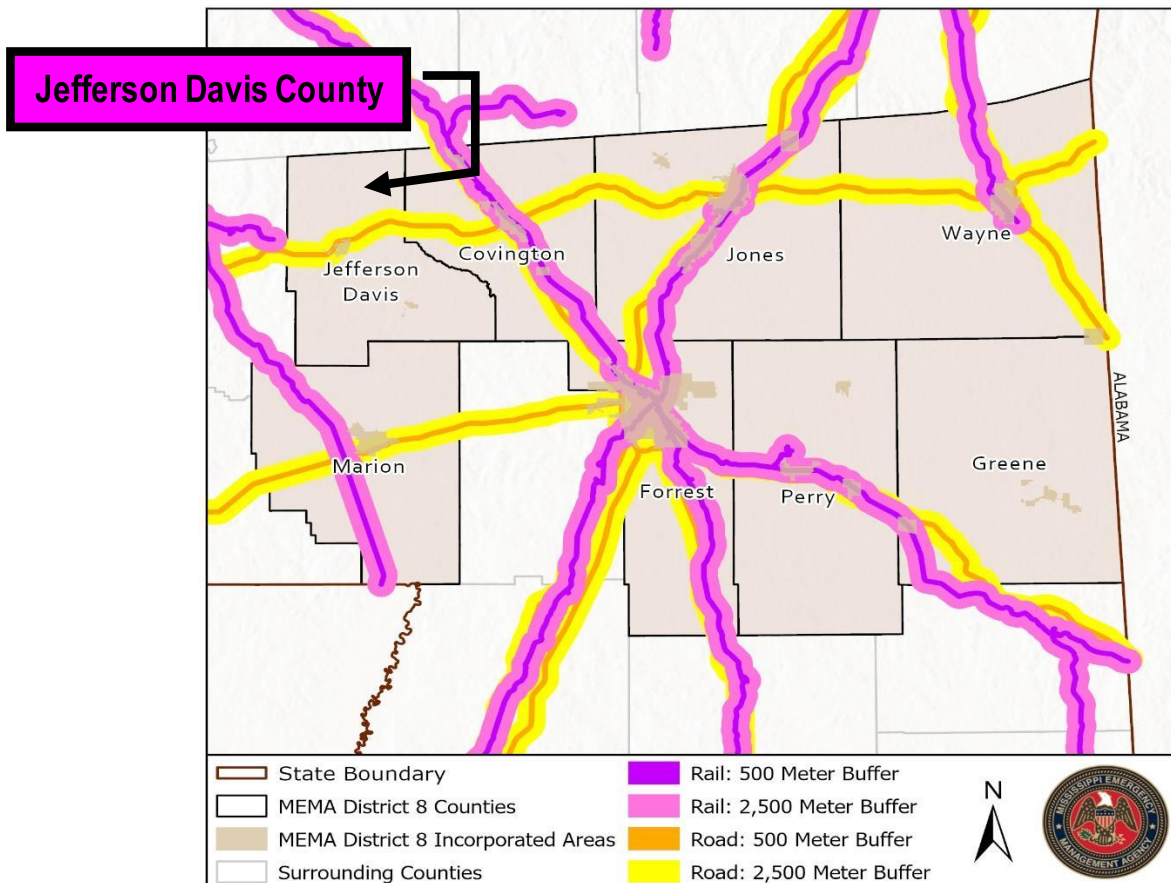


FIGURE D.16: MOBILE HAZMAT BUFFERS IN JEFFERSON DAVIS COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden to evacuate population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are no Jefferson Davis County facilities located in a HAZMAT risk zone because there is one TRI sites located in the county. A list of specific critical facilities and their associated risk can be found in **Table D.27**.

Mobile Analysis:

The critical facility analysis for transportation corridors in Jefferson Davis County revealed that there are 13 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at over \$30M. Expanding to a 2500M HAZMAT risk zone reveals there are 18 critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable valued at over \$33.8M. A list of specific critical facilities and their associated risk can be found in **Table D.27**.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Jefferson Davis County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

D.4 JEFFERSON DAVIS COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Jefferson Davis County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in *Section 7: Capability Assessment*.

D.4.1 Planning and Regulatory Capability

Table D.29 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Jefferson Davis County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE D.29: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Jefferson Davis County	Bassfield	Prentiss
Hazard Mitigation Plan	✓	✓	✓
Comprehensive Land Use Plan		✓	✓
Floodplain Management Plan			
Open Space Management Plan	✓	✓	✓
Stormwater Management Plan/Ordinance			
National Resource Protection Plan			
Flood Response Plan			
Emergency Operations Plan	✓	✓	✓
Continuity of Operations Plan	✓		
Evacuation Plan			
Disaster Recovery Plan			
Capital Improvements Plan			
Economic Development Plan	✓	✓	✓
Historic Preservation Plan			
Flood Damage Prevention Ordinance	✓		✓
Zoning Ordinance		✓	✓
Subdivision Ordinance		✓	✓
Unified Development Ordinance			
Post-Disaster Redevelopment Ordinance			
Building Codes		✓	✓
Fire Codes		✓	✓
National Flood Insurance Program (NFIP)	✓		✓
National Community Rating System	✓		✓

A more detailed discussion on the county's planning and regulatory capabilities follows.

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Jefferson Davis County has previously adopted a hazard mitigation plan. The Town of Bassfield and the Town of Prentiss were also included in this plan.

Emergency Operations Plan

Jefferson Davis County maintains an emergency operations plan through its Emergency Management Agency. The Town of Bassfield and the Town of Prentiss are each covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Jefferson Davis County has not adopted a county comprehensive land use plan. However, the Town of Bassfield adopted a community development plan in 1972 and Town of Prentiss adopted a comprehensive plan in 1973.

Zoning Ordinance

Jefferson Davis County does not have a zoning ordinance in place. However, the Town of Bassfield and Town of Prentiss have zoning ordinances that were adopted in 1972 and 1973, respectively.

Subdivision Ordinance

Jefferson Davis County does not have a subdivision ordinance in place. However, the Town of Bassfield and Town of Prentiss adopted subdivision regulations in 1972 and 1966, respectively.

Building Codes, Permitting, and Inspections

Jefferson Davis County has not adopted a building code. However, the Town of Bassfield and the Town of Prentiss have both adopted building codes.

FLOODPLAIN MANAGEMENT

Table D.30 provides NFIP policy and claim information for each participating jurisdiction in Jefferson Davis County.

TABLE D.30: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
Jefferson Davis County†	12/17/2010	12/17/2010(M)	7	\$762,600	0	\$0
<i>Bassfield*</i>	--	--	--	--	--	--
<i>Prentiss</i>	12/17/2010	12/17/2010(M)	0	\$0	2	\$4,613

†Includes unincorporated areas of county only
(M) – No Elevation Determined, All Zone A, C and X

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Jefferson Davis County and the Town of Prentiss both participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Jefferson Davis County, the Town of Bassfield, and the Town of Prentiss are all included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

D.4.2 Administrative and Technical Capability

Table D.31 provides a summary of the capability assessment results for Jefferson Davis County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE D.31: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Jefferson Davis County	Bassfield	Prentiss
Planners with knowledge of land development/ land management practices			
Engineers of professionals trained in construction practices related to buildings and/or infrastructure	✓	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards.			
Emergency Manager	✓	✓	✓
Floodplain Manager	✓	✓	✓
Land Surveyors			
Scientists familiar with the hazards of the community.	✓	✓	✓
Staff with education or expertise to assess the community's vulnerability to hazards.	✓	✓	✓
Personnel skilled in GIS and/or HAZ-US	✓	✓	✓
Resource development staff or grant writers	✓	✓	✓

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

D.4.3 Fiscal Capability

Table D.32 provides a summary of the results for Jefferson Davis County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE D.32: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Jefferson Davis County	Bassfield	Prentiss
Capital Improvement Programing	✓	✓	✓
Community Development Block Grants (CDBG)	✓	✓	✓
Special Purchase Taxes (or taxing districts)			
Gas/ Electric Utility Fees			
Water/ Sewer Fees			
Stormwater Utility Fees			
Development Impact Fees			
General Obligation, Revenue, and/or Special Tax Bonds			
Partnering Arrangements or Intergovernmental Agreements	✓	✓	✓

D.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Jefferson Davis County is more likely to shift in support of hazard mitigation efforts.

D.5 JEFFERSON DAVIS COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Jefferson Davis County to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability assessment and risk assessment. Additional Information can be found in *Section 8: Mitigation Strategy* and *Section 9: Mitigation Action Plan*.

D.5.1 Mitigation Goals

Jefferson Davis County developed five mitigation goals in coordination with the other participating *MEMA District 8 Region jurisdictions*. The regional mitigation goals are presented in **Table D.33**.

TABLE D.33: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

Goals	
Goal #1	Develop a sustainable, comprehensive mitigation program to ensure safer communities.
Goal #2	Reduce or avoid loss of life, injury, and damage to property, the economy, and the environment.
Goal #3	Enhance preparedness and effective response to hazards.
Goal #4	Strengthen and improve local mitigation capabilities.
Goal #5	Increase public awareness of hazard mitigation, hazard risk, and protective measures that can be taken to minimize potential loss and damage.

D.5.2 Mitigation Action Plan

The mitigation actions proposed by Jefferson Davis County, the Town of Bassfield, and the Town of Prentiss are listed in the following individual Mitigation Action Plans.

Jefferson Davis County Mitigation Action Plan								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status

Prevention

P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	High	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Annual County Budget	County BOS & Road Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	County is considering
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	No cost	County	Ongoing	Pending status change in action P-9

Property Protection

PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	Unknown	County	Ongoing	Implemented and ongoing
PP-6	Property Acquisitions and elevations of flood prone structures	FL	Medium	Grants, BRIC, HMGP, PDM	N/A	County	Ongoing	Ongoing
PP-7	Construct new multipurpose EOC facility to serve as EOC and safe room for emergency personnel during disaster situations.	All Hazards	High	Grants, BRIC, HMGP, PGM, Local Sources	\$3,000,000 - \$10,000,000	County	Ongoing	Ongoing

Natural Resource Protection

NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding
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Emergency Services

ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	JDCEMA	Annual Review	Ongoing
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ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, JDCEMA	Ongoing	Complemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Explore upgrade/enhancement of 911 system in Jefferson Davis County.	All	Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Planning Upgrade
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Deferred due to funding
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	Unknown	County	Ongoing	Implemented / Ongoing
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-14	Host a meeting to review Jefferson Davis County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Annual Review	Ongoing as needed
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Ongoing – contingent on funding

Structural Projects

SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
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Public Education and Awareness

PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Ongoing – contingent on funding
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented / Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Implemented / Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA	Unknown	County	Ongoing	Deferred

PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	Low or no Cost	County	Ongoing	Implemented and Ongoing
PEA-8	Develop/encourage water conservation measures during times of shortage	Drought	Medium	HMGP	N/A	County	Ongoing	Ongoing

FL = Flood

HU = Hurricane

TS = Tropical Storm

TO = Tornado

TH = Thunderstorm

BH = Biological Hazards

HW = High Winds

TT = Transportation and Technological Hazards

RH = Roadway Hazards

CH = Civil Hazards

P = Pandemic

County EMA/ JDCEMA = Jefferson Davis County Emergency Management AgencyCounty BOS = Jefferson Davis County Board of Supervisors

The Town of Bassfield Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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Prevention

P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	High	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Annual County Budget	County BOS & Road Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	County is considering
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	No cost	County	Ongoing	Pending status change in action P-9

Property Protection

PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	Unknown	County	Ongoing	Implemented and ongoing
PP-6	Property Acquisitions and elevations of flood prone structures	FL	Medium	Grants, BRIC, HMGP, PDM	N/A	County	Ongoing	Ongoing
PP-7	Construct new multipurpose EOC facility to serve as EOC and safe room for emergency personnel during disaster situations.	All Hazards	High	Grants, BRIC, HMGP, PGM, Local Sources	\$3,000,000 - \$10,000,000	County	Ongoing	Ongoing

Natural Resource Protection

NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding
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Emergency Services

ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	JDCEMA	Annual Review	Ongoing
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ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, JDCEMA	Ongoing	Complemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Explore upgrade/enhancement of 911 system in Jefferson Davis County.	All	Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Planning Upgrade
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Deferred due to funding
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	Unknown	County	Ongoing	Implemented / Ongoing
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-14	Host a meeting to review Jefferson Davis County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Annual Review	Ongoing as needed
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Ongoing – contingent on funding

Structural Projects

SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
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Public Education and Awareness

PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Ongoing – contingent on funding
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented / Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Implemented / Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant,	Unknown	County	Ongoing	Deferred

				Grants, BRIC, HMGP				
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	Low or no Cost	County	Ongoing	Implemented and Ongoing
PEA-8	Develop/encourage water conservation measures during times of shortage	Drought	Medium	HMGP	N/A	County	Ongoing	Ongoing

FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm
 BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards
 RH = Roadway Hazards CH = Civil Hazards P = Pandemic
County EMA/ JDCEMA = Jefferson Davis County Emergency Management Agency
County BOS = Jefferson Davis County Board of Supervisors

The Town of Prentiss Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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Prevention

P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	High	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	Self-funded	Annual County Budget	County BOS & Road Crews	Annual Review	Ongoing
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	County is considering
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	No cost	County	Ongoing	Ongoing
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	County is considering
P-10	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	No cost	County	Ongoing	Pending status change in action P-9

Property Protection

PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	Unknown	County	Ongoing	Implemented and ongoing
PP-6	Property Acquisitions and elevations of flood prone structures	FL	Medium	Grants, BRIC, HMGP, PDM	N/A	County	Ongoing	Ongoing
PP-7	Construct new multipurpose EOC facility to serve as EOC and safe room for emergency personnel during disaster situations.	All Hazards	High	Grants, BRIC, HMGP, PGM, Local Sources	\$3,000,000 - \$10,000,000	County	Ongoing	Ongoing

Natural Resource Protection

NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding
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Emergency Services

ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	JDCEMA	Annual Review	Ongoing
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ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, JDCEMA	Ongoing	Complemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Consider generators for local radio station service areas and /or other critical facilities.	TO, HU, TS	High	HMGP	Unknown	County EMA	Contingent on funding	Deferred due to funding
ES-7	Install warning sirens in the County.	TO, HU	High	HMGP	Unknown	County EMA	Contingent on funding	Implemented and ongoing
ES-8	Explore upgrade/enhancement of 911 system in Jefferson Davis County.	All	Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Planning Upgrade
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	County and/or EMA	Contingent on funding	Deferred due to funding
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Implemented, maps available upon request
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HGMP	Unknown	County	Ongoing	Implemented / Ongoing
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-14	Host a meeting to review Jefferson Davis County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Annual Review	Ongoing as needed
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Ongoing – contingent on funding
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing as needed
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Ongoing – contingent on funding
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented / Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Implemented / Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH,	Medium	USDA Rural Dev. CDBG, Small Muni. Grant,	Unknown	County	Ongoing	Deferred

		HW		Grants, BRIC				
PEA-7	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	Low or no Cost	County	Ongoing	Implemented and Ongoing
PEA-8	Develop/encourage water conservation measures during times of shortage	Drought	Medium	HMGP	N/A	County	Ongoing	Ongoing

FL = Flood

HU = Hurricane

TS = Tropical Storm

TO = Tornado

TH = Thunderstorm

BH = Biological Hazards

HW = High Winds

TT = Transportation and Technological Hazards

RH = Roadway Hazards

CH = Civil Hazards

P = Pandemic

County EMA/ JDCEMA = Jefferson Davis County Emergency Management AgencyCounty BOS = Jefferson Davis County Board of Supervisors

Annex E

Jones County

This annex includes jurisdiction-specific information for Jones County and its participating municipalities. It consists of the following five subsections:

- ✦ E.1 Jones County Community Profile
- ✦ E.2 Jones County Risk Assessment
- ✦ E.3 Jones County Vulnerability Assessment
- ✦ E.4 Jones County Capability Assessment
- ✦ E.5 Jones County Mitigation Strategy

E.1 JONES COUNTY COMMUNITY PROFILE

E.1.1 Geography and the Environment

Jones County is located in southeastern Mississippi. It comprises four municipalities, the City of Ellisville, the City of Laurel, the Town of Sandersville, and the Town of Soso, as well as many small unincorporated communities. An orientation map is provided as **Figure E.1**.

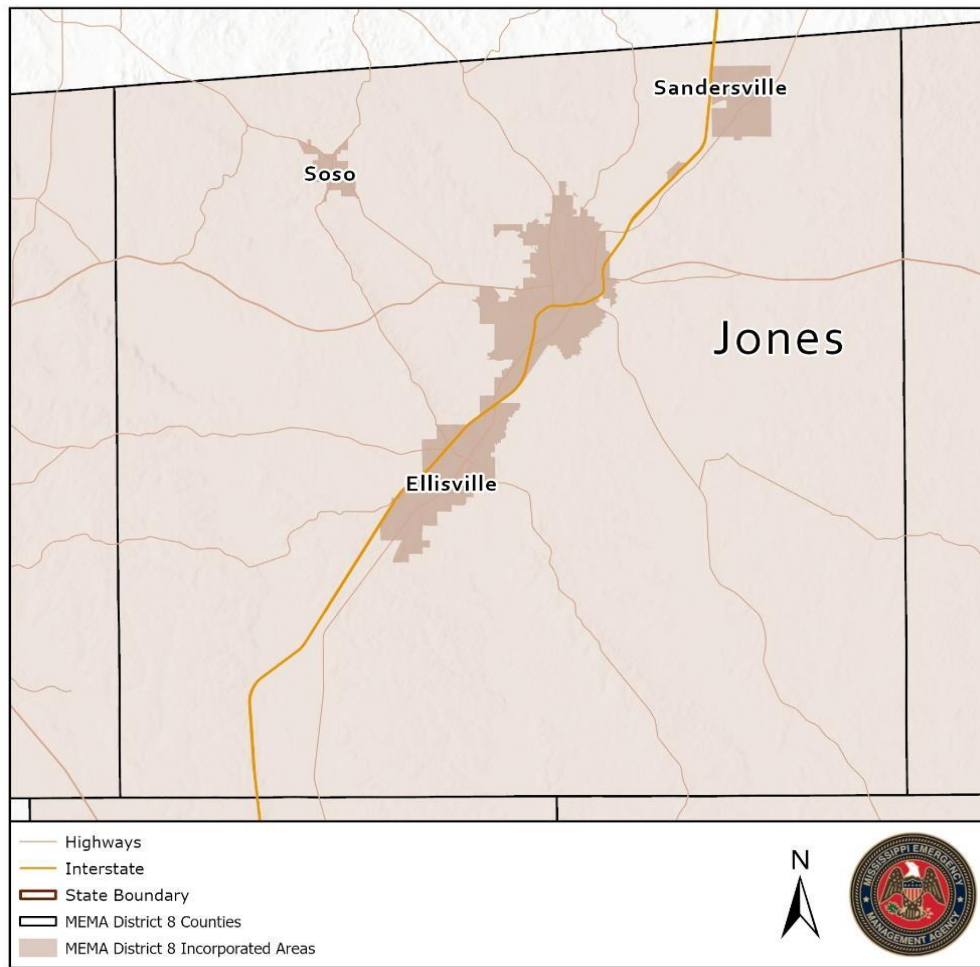
The county is made up of pine forests and streams. The total area of the county is 700 square miles, 5 square miles of which is water area.

In Jones County, the summers are long, hot, and muggy; the winters are short and cold; and it is wet and partly cloudy year-round. Over the course of the year, the temperature typically varies from 39°F to 92°F and is rarely below 25°F or above 97°F.

The hot season lasts for 5 months, from May to September, with an average daily high temperature above 89°F. The hottest day of the year is July 22, with an average high of 92°F and low of 72°F. The cool season lasts for 3 months, from December to February, with an average daily high temperature below 60°F. The coldest day of the year is January 17, with an average low of 39°F and high of 57°F.

A wet day is one with at least 0.04 inches of liquid or liquid-equivalent precipitation. The chance of wet days in Jones County varies significantly throughout the year. The wetter season lasts 6 months, from December to May, with a greater than 36% chance of a given day being a wet day. The chance of a wet day peaks at 52% on July 25. The smallest chance of a wet day is 20% on October 8. Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 52% on July 25. The least rain falls around October 5, with an average total accumulation of 3.1 inches.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	57	62	69	77	84	91	92	92	88	79	67	60
Average Lows	39	44	50	55	63	70	72	72	68	58	47	44
Average Rainfall	4.8 in.	5.1 in.	6.3 in.	5.3 in.	5 in.	4.6 in.	5.4 in.	5.2 in.	4.2 in.	3.3 in.	3.4 in.	6.4 in.

FIGURE E.1: JONES COUNTY ORIENTATION MAP

E.1.2 Population and Demographics

According to the 2020 Census, Jones County has a population of 67,246 people. The county has seen just over 0.8% decline between 2010 and 2020, and the population density is 98 people per square mile. Per the Census Reports in 2023, Jones County had a population of 66,250, which is a .1 percent decrease since 2020. The population of the county had a slight overall population decline, although Ellisville and Soso had an increase in population. If the population count continues it could lead to an overall decrease in vulnerability in the county and Sandersville while Ellisville and Soso could have an increase in their vulnerability. The household income is \$59,815, which grew 35 percent. Population counts from the US Census Bureau for 2010, and 2020 for the county and both of the participating jurisdictions are presented in **Table E.1**.

TABLE E.1: POPULATION COUNTS FOR JONES COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2023 Estimate
Jones County	67,761	67,246	-0.76%	66,250
Ellisville	4,448	4,652	4.48%	4,786
Laurel	18,540	17,161	-7.43%	16,939
Sandersville	731	636	-12.99%	609
Soso	408	418	2.45%	409

Source: US Census Bureau

Based on the 2020 Census, the median age of residents of Jones County is 36.8 years. Per 2023 estimates, the median age has increased slightly to 37.1 years. The racial characteristics of the county are presented in **Table E.2** and will remain the same as the census data has not been officially updated. Due to the population increase and decrease, the racial characteristics differ slightly. The population is 29 percent for black or African American persons, 5 percent Hispanic or Latino. Whites make up the majority of the population in the county, accounting for 64 percent of the population.

TABLE E.2: DEMOGRAPHICS OF JONES COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Jones County	64%	29%	1%	1%	5%
<i>Ellisville</i>	<i>54%</i>	<i>36%</i>	<i>0.4%</i>	<i>4%</i>	<i>6%</i>
<i>Laurel</i>	<i>25%</i>	<i>59%</i>	<i>1%</i>	<i>7%</i>	<i>8%</i>
<i>Sandersville</i>	<i>87%</i>	<i>7%</i>	<i>4%</i>	<i>1%</i>	<i>1%</i>
<i>Soso</i>	<i>63%</i>	<i>23%</i>	<i>1%</i>	<i>2%</i>	<i>11%</i>

Source: US Census Bureau

TABLE E.3: AVERAGE INCOME AND HEALTH IN JONES COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below the Poverty Level
Jones County	19%	9%	\$59,815	15%
<i>Ellisville</i>	<i>24%</i>	<i>13%</i>	<i>\$30,479</i>	<i>32%</i>
<i>Laurel</i>	<i>19%</i>	<i>13%</i>	<i>\$36,336</i>	<i>33%</i>
<i>Sandersville</i>	<i>22%</i>	<i>13%</i>	<i>\$44,219</i>	<i>24%</i>
<i>Soso</i>	<i>11%</i>	<i>16%</i>	<i>\$69,375</i>	<i>8%</i>

Source: US Census Bureau

E.1.3 Housing

According to the 2020 US Census, there are 28,488 housing units in Jones County, the majority of which are single family homes or mobile homes. Per 2023 estimates, the total number of housing units increased to 29,481 units. The median home value is \$149,500, which also increased by at least 43 percent. The overall slight increase in housing units and the high increase in property values could increase vulnerability if the trend continues. Housing information for the county and four towns is presented in **Table E.4**.

TABLE E.4: HOUSING CHARACTERISTICS OF JONES COUNTY

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2020)	Median Home Value (2020)
Jones County	28,424	\$85,000	28,488	\$149,500
<i>Ellisville</i>	<i>1,490</i>	<i>\$79,300</i>	<i>1,501</i>	<i>\$97,800</i>
<i>Laurel</i>	<i>6,726</i>	<i>\$81,600</i>	<i>7,320</i>	<i>\$111,300</i>
<i>Sandersville</i>	<i>302</i>	<i>\$49,600</i>	<i>293</i>	<i>\$100,000</i>
<i>Soso</i>	<i>174</i>	<i>\$85,300</i>	<i>182</i>	<i>\$121,400</i>

Source: US Census Bureau

E.1.4 Infrastructure

TRANSPORTATION

Jones County is served by US Interstate 59, US Highways 11 and 84, the Canadian National Railroad, and the Norfolk Southern Railway. Freight and passenger rail services are available in the county.

Jones County also enjoys the close proximity of the Jackson International Airport as well as the Hattiesburg-Laurel Regional Airport.

Rail service to the area is provided by Norfolk Southern Railroad, passenger service offered via an Amtrak station located inside the City of Laurel.

UTILITIES

Electrical power in Jones County is provided by several sources, including Dixie Electric Power Association (EPA), Mississippi Power Company, South Mississippi EPA, and Southern Pine EPA.

Water and sewer services are provided to residents by a variety of rural water associations and sewer treatment providers.

COMMUNITY FACILITIES

There are numerous buildings and community facilities located throughout Jones County. According to the data collected for the vulnerability assessment, there are 30 fire stations, 5 police stations, and 18 public schools located within the county.

There is one hospital located in Jones County. South Central Regional Medical Center is a 285-bed medical-surgical hospital located in the City of Laurel.

A portion of the De Soto National Forest is found within the southeast corner of Jones County, as well as the Bogue Homa Indian Reservation, east of Sandersville in northeastern Jones County.

E.1.5 Land Use

Many areas of Jones County are undeveloped or sparsely developed due to the county's location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region's population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

E.1.6 Employment and Industry

According to the Mississippi Employment Security Commission, in 2024, Jones County had an average annual employment of 24,760 workers in 2024 and an average unemployment rate of 2.7 percent. According to the MESCC, in 2023, the Education Services and Health Care employed the most people, with 20 percent of the workforce, followed by Manufacturing (18.9%) and Retail Trade (13.7%). The average annual wage in Jones County was \$49,451.

E.2 JONES COUNTY RISK ASSESSMENT

This subsection includes hazard profiles for each of the significant hazards identified in *Section 4: Hazard Identification* as they pertain to Jones County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in *Section 5: Hazard Profiles*.

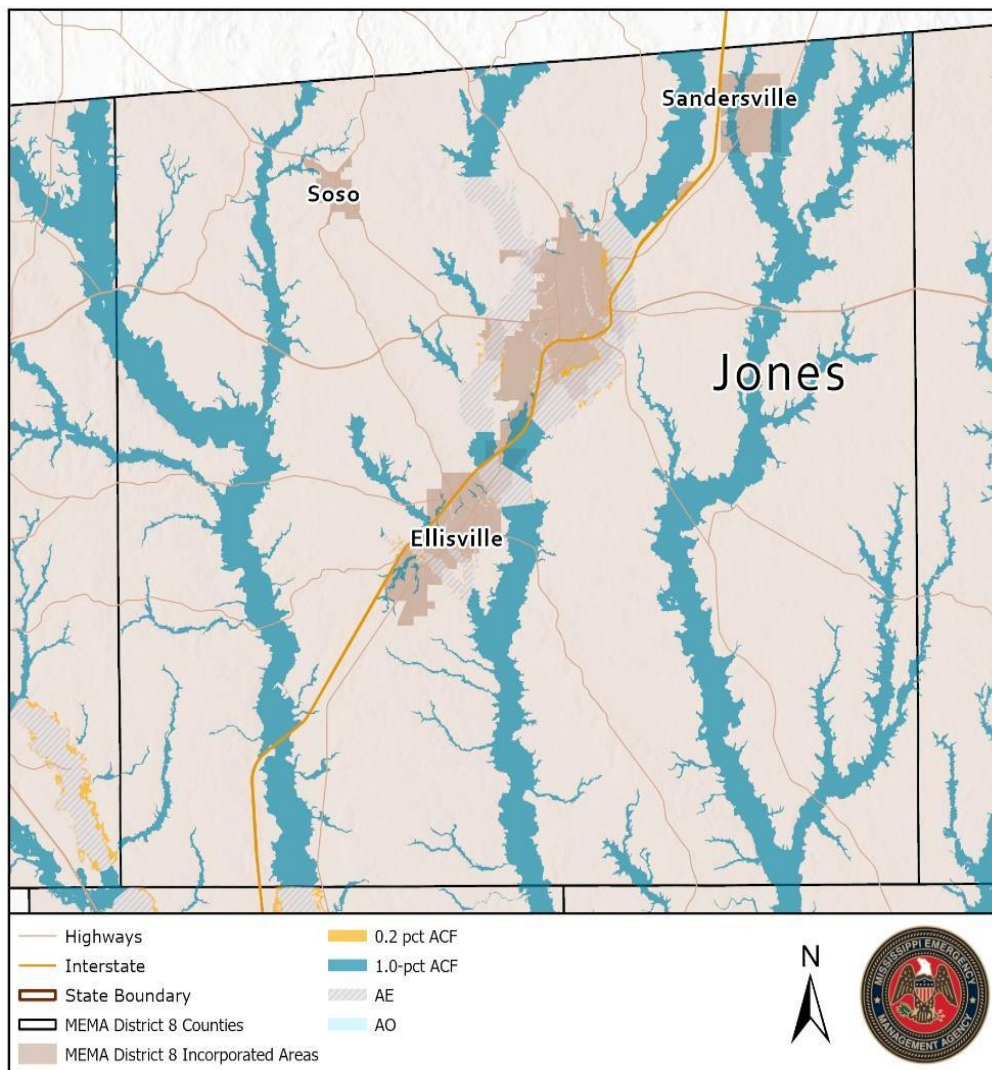
E.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Jones County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain). According to GIS analysis, of the 695 square miles that make up Jones County, there are 137 square miles of land in zones A and AE (1-percent annual chance floodplain/100-year floodplain) and 1.3 square mile of land in the 0.2-percent annual chance floodplain (500-year floodplain).

These flood zone values account for 20 percent of the total land area in Jones County. It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood-related losses often do occur outside of delineated special flood hazard areas.

FIGURE E.2: SPECIAL FLOOD HAZARD AREAS IN JONES COUNTY



HISTORICAL OCCURRENCES

Floods resulted in ten disaster declarations in Jones County in 1973, 1974, 1987, 1990, 2003, 2009, 2014, 2016, 2018, and in 2020. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National Centers for Environmental Information reported a total of 105 events in Jones County since 2000. A summary of these events is presented in **Table E.5**. These events accounted for over \$11M in property damage in the county. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table E.6 & E.7**.

TABLE E.5: SUMMARY OF FLOOD OCCURRENCES IN JONES COUNTY

LOCATION	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Ellisville</i>	11	0	0	\$88,000	\$0
<i>Laurel</i>	48	0	0	\$1,322,000	\$0
<i>Sandersville</i>	4	0	0	\$34,000	\$0
<i>Soso</i>	2	0	0	\$10,000	\$0
<i>Unincorporated Area</i>	41	0	0	\$9,306,000	\$300,000
Jones County Total:	105	0	0	\$10,760,000	\$300,000

Source: NCED/NOAA

TABLE E.6: HISTORICAL FLOOD EVENTS IN JONES COUNTY

Location	Date	Type	Deaths	Injuries	Property Damage
The City of Ellisville					
<i>Ellisville</i>	1/13/2004	Flash Flood	0	0	\$5,000
<i>Ellisville</i>	8/21/2009	Flash Flood	0	0	\$1,000
<i>Ellisville</i>	2/4/2010	Flash Flood	0	0	\$10,000
<i>Ellisville</i>	2/11/2013	Flash Flood	0	0	\$25,000
<i>Ellisville</i>	7/5/2015	Flash Flood	0	0	\$3,000
<i>Ellisville</i>	12/23/2015	Flash Flood	0	0	\$5,000
<i>Ellisville</i>	3/11/2016	Flash Flood	0	0	\$10,000
<i>Ellisville</i>	6/6/2017	Flash Flood	0	0	\$10,000
<i>Ellisville</i>	6/16/2017	Flood	0	0	\$1,000
<i>Ellisville</i>	8/9/2017	Flash Flood	0	0	\$15,000
<i>Ellisville</i>	2/11/2021	Flash Flood	0	0	\$3,000
The City of Laurel					
<i>Laurel</i>	8/11/2001	Flash Flood	0	0	\$0
<i>Laurel</i>	9/26/2002	Flash Flood	0	0	\$2,000
<i>Laurel</i>	11/27/2003	Flash Flood	0	0	\$15,000
<i>Laurel</i>	6/1/2004	Flash Flood	0	0	\$0
<i>Laurel</i>	6/28/2004	Flash Flood	0	0	\$40,000
<i>Laurel</i>	7/2/2004	Flash Flood	0	0	\$0
<i>Laurel</i>	3/27/2009	Flash Flood	0	0	\$25,000
<i>Laurel</i>	12/24/2009	Flash Flood	0	0	\$12,000
<i>Laurel</i>	4/24/2010	Flash Flood	0	0	\$5,000
<i>Laurel</i>	8/22/2010	Flash Flood	0	0	\$15,000

<i>Laurel</i>	3/9/2011	Flash Flood	0	0	\$30,000
<i>Laurel</i>	1/26/2012	Flash Flood	0	0	\$5,000
<i>Laurel</i>	7/13/2012	Flash Flood	0	0	\$0
<i>Laurel</i>	8/9/2012	Flash Flood	0	0	\$0
<i>Laurel</i>	8/29/2012	Flash Flood	0	0	\$50,000
<i>Laurel</i>	1/30/2013	Flash Flood	0	0	\$5,000
<i>Laurel</i>	6/5/2013	Flash Flood	0	0	\$0
<i>Laurel</i>	8/21/2013	Flash Flood	0	0	\$0
<i>Laurel</i>	9/21/2013	Flash Flood	0	0	\$0
<i>Laurel</i>	4/28/2014	Flash Flood	0	0	\$500,000
<i>Laurel</i>	7/4/2015	Flash Flood	0	0	\$2,000
<i>Laurel</i>	10/31/2015	Flash Flood	0	0	\$5,000
<i>Laurel</i>	12/23/2015	Flash Flood	0	0	\$5,000
<i>Laurel</i>	12/24/2015	Flash Flood	0	0	\$5,000
<i>Laurel</i>	3/10/2016	Flash Flood	0	0	\$22,000
<i>Laurel</i>	4/14/2016	Flash Flood	0	0	\$5,000
<i>Laurel</i>	5/31/2016	Flash Flood	0	0	\$7,000
<i>Laurel</i>	4/3/2017	Flash Flood	0	0	\$250,000
<i>Laurel</i>	4/30/2017	Flash Flood	0	0	\$8,000
<i>Laurel</i>	6/16/2017	Flash Flood	0	0	\$1,000
<i>Laurel</i>	6/23/2017	Flash Flood	0	0	\$7,000
<i>Laurel</i>	8/9/2017	Flash Flood	0	0	\$5,000
<i>Laurel</i>	5/30/2018	Flash Flood	0	0	\$35,000
<i>Laurel</i>	7/31/2018	Flash Flood	0	0	\$50,000
<i>Laurel</i>	8/17/2018	Flash Flood	0	0	\$10,000
<i>Laurel</i>	11/1/2018	Flash Flood	0	0	\$25,000
<i>Laurel</i>	12/27/2018	Flash Flood	0	0	\$40,000
<i>Laurel</i>	2/20/2019	Flash Flood	0	0	\$15,000
<i>Laurel</i>	7/14/2019	Flash Flood	0	0	\$5,000
<i>Laurel</i>	1/13/2020	Flash Flood	0	0	\$5,000
<i>Laurel</i>	8/28/2020	Flash Flood	0	0	\$10,000
<i>Laurel</i>	2/11/2021	Flash Flood	0	0	\$3,000
<i>Laurel</i>	3/25/2021	Flash Flood	0	0	\$5,000
<i>Laurel</i>	6/6/2021	Flash Flood	0	0	\$50,000
<i>Laurel</i>	3/18/2022	Flash Flood	0	0	\$11,000
<i>Laurel</i>	6/16/2023	Flash Flood	0	0	\$30,000
<i>Laurel</i>	7/11/2023	Flash Flood	0	0	\$1,000
<i>Laurel</i>	6/26/2024	Flood	0	0	\$1,000
The Town of Sandersville					
<i>Sandersville</i>	6/30/2010	Flash Flood	0	0	\$20,000
<i>Sandersville</i>	6/23/2017	Flash Flood	0	0	\$5,000
<i>Sandersville</i>	9/26/2018	Flash Flood	0	0	\$4,000
<i>Sandersville</i>	12/28/2018	Flash Flood	0	0	\$5,000
The Town of Soso					
<i>Soso</i>	10/31/2015	Flash Flood	0	0	\$8,000

Soso	7/14/2019	Flash Flood	0	0	\$2,000
Unincorporated Area in Jones County					
<i>Countywide</i>	3/2/2001	Flash Flood	0	0	\$12,000
<i>Countywide</i>	3/3/2001	Flash Flood	0	0	\$0
<i>Countywide</i>	6/10/2001	Flash Flood	0	0	\$20,000
<i>Countywide</i>	10/13/2001	Flash Flood	0	0	\$0
<i>Countywide</i>	12/13/2001	Flash Flood	0	0	\$0
<i>Countywide</i>	9/26/2002	Flash Flood	0	0	\$1,000
<i>Countywide</i>	2/21/2003	Flash Flood	0	0	\$5,000
<i>Ovett</i>	6/30/2003	Flash Flood	0	0	\$5,000
<i>Countywide</i>	3/31/2005	Flash Flood	0	0	\$400,000
<i>Countywide</i>	4/1/2005	Flash Flood	0	0	\$100,000
<i>Western Portion</i>	8/29/2005	Flash Flood	0	0	\$200,000
<i>Errata</i>	9/2/2008	Flash Flood	0	0	\$5,000,000
<i>Gitano</i>	4/12/2009	Flash Flood	0	0	\$500,000
<i>Tuckers</i>	2/4/2010	Flood	0	0	\$1,000
<i>Tawanta</i>	5/20/2010	Flash Flood	0	0	\$10,000
<i>Blodgett</i>	2/18/2012	Flash Flood	0	0	\$0
<i>Tuckers Crossing</i>	3/21/2012	Flash Flood	0	0	\$10,000
<i>Ovett</i>	3/22/2012	Flash Flood	0	0	\$250,000
<i>Ovett & Moselle</i>	2/10/2013	Flash Flood	0	0	\$0
<i>Hoy</i>	9/24/2013	Flash Flood	0	0	\$20,000
<i>Errata</i>	3/28/2014	Flash Flood	0	0	\$200,000
<i>Errata, Hebron, & Service</i>	10/31/2015	Flash Flood	0	0	\$14,000
<i>Hoy, Errata, Service, & Moselle</i>	3/10/2016	Flash Flood	0	0	\$239,000
<i>Reddoch</i>	3/11/2016	Flash Flood	0	0	\$7,000
<i>Moselle</i>	4/14/2016	Flash Flood	0	0	\$3,000
<i>Walters</i>	1/21/2017	Flash Flood	0	0	\$3,000
<i>Eastabuchie, Moselle, & PIB</i>	6/6/2017	Flash Flood	0	0	\$190,000
<i>Tuckers</i>	6/16/2017	Flash Flood	0	0	\$8,000
<i>Tuckers & Errata</i>	6/23/2017	Flash Flood	0	0	\$34,000
<i>Eastabuchie</i>	8/9/2017	Flash Flood	0	0	\$5,000
<i>(PIB) Pine Belt RGNL.</i>	8/16/2017	Flash Flood	0	0	\$4,000
<i>Hoy</i>	12/27/2018	Flash Flood	0	0	\$2,000,000
<i>Ovett & Macedonia</i>	1/23/2019	Flash Flood	0	0	\$3,000
<i>Hoy</i>	5/11/2019	Flash Flood	0	0	\$2,000
<i>Moselle</i>	1/13/2020	Flash Flood	0	0	\$2,000
<i>PIB & Service</i>	8/30/2021	Flash Flood	0	0	\$15,000
<i>Walters</i>	3/18/2022	Flash Flood	0	0	\$1,000
<i>Hoy</i>	7/4/2022	Flash Flood	0	0	\$5,000
<i>Moselle</i>	8/24/2022	Flash Flood	0	0	\$5,000
<i>Tuckers</i>	6/17/2023	Flood	0	0	\$31,000
<i>Hoy</i>	1/24/2024	Flood	0	0	\$1,000

TABLE E.7: EXTENT: FLOOD EVENTS IN JONES COUNTY SINCE THE LAST UPDATE

Jones County : \$175,000

Location	Date	Loss	Cause	Impact
County	1/23/2019	\$3,000	A low-pressure system moved east across the region, bringing widespread rainfall and a few strong to severe thunderstorms. Thunderstorms across the Pine Belt led to flash flooding.	- Flash flooding led to rising water which threatened a home along Ovett Moselle Rd. - Flash flooding led to water flowing across George Boutwell Road.
Laurel	2/20/2019	\$15,000	Heavy rain and thunderstorms developed as a frontal system stalled along the coast and a series of disturbances moved through the region. Some locations received 10 to over 15 inches of rain, resulting in significant flooding.	Several streets were closed due to flooding.
Hoy	5/11/2019	\$2,000	A cold front stalled across the ArkLaMiss region the day before, the remnant stationary front served as a focus for the development of widespread showers and thunderstorms on May 11th. Following several previous rounds of heavy rainfall across the region, heavy rain showers and storms produced flooding and flash flooding across mainly eastern and southeastern Mississippi.	Matthews Road off of MS Highway 15 was closed due to flash flooding.
Laurel & Soso	7/14/2019	\$7,000	Hurricane Barry made landfall in Louisiana and quickly weakened to a tropical storm as it moved inland across the region. The storm brought severe storms and flash flooding to the region on July 14th.	- Water covered Feed Mill Road in Soso. - In Laurel flash flooding occurred on Leontyne Price Boulevard between I-59 and Home Street. Home Street was flooded from Leontyne Price Boulevard to South Magnolia Street.
Laurel & Moselle	1/13/2020	\$7,000	A warm front was situated across southern Mississippi during the evening of January 13th. This, combined with a passing disturbance and anomalous moisture, supported numerous thunderstorms and heavy rainfall that produced widespread rainfall between 2 and 6 inches with the heaviest corridor right across the central portion of the forecast area.	- Some roads around Moselle were flooded and impassable. - Several roads around Laurel were flooded and impassable.
Laurel	8/28/2020	\$10,000	Hurricane Laura made landfall along the Louisiana coast near Lake Charles in the early morning hours of August 27, which led to minor flooding in the area.	Moderate street flooding caused a car to stall along 15th Avenue.
Ellisville & Laurel	2/11/2021	\$6,000	Flash flooding occurred due to heavy rain.	Multiple streets were flooded, and ditches were full over in the city of Ellisville, and multiple streets were flooded in Laurel.
Laurel	3/25/2021	\$5,000	Storms developed during the afternoon, bringing damaging winds and flash flooding to the region.	Flooding occurred east of the Interstate exchange in Laurel.
Laurel	6/6/2021	\$50,000	As an upper-level low pressure system moved over central parts of the country, a few storm systems moved across the state of Mississippi.	Street flooding occurred in Laurel, especially in the southern part of the city. A few cars were flooded.
County	8/30/2021	\$15,000	- Major hurricane Ida made landfall as a strong category four hurricane August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi. - Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding.	Heavy rainfall from Tropical Storm Ida resulted in flash flooding across Jones County. The intersection of Monroe Road and Emmons Road was underwater as well as a one eight mile stretch of RV Lindley Road.
Laurel & County	3/18/2022	\$12,000	Showers and thunderstorms developed in the warm, moist airmass south of a warm front. Flash flooding occurred as storms began to move over the same region.	- Flooding occurred in Laurel on Leontyne Price Blvd and Pendorff road. Multiple streets were flooded in town. A few vehicles stalled out from driving in flooded roads. - Flooding occurred near the intersection of Burnt Bridge Rd. and Palmer Rd. in Ellisville.
			Numerous showers and thunderstorms	Multiple streets were flooded in Laurel.

Laurel	7/4/2022	\$5,000	developed across the area on the afternoon of July 4th. Some of these storms had torrential downpours which resulted in flash flooding in portions of Jones and Rankin Counties.	
Moselle	8/24/2022	\$5,000	A low-pressure system brought rounds of showers, thunderstorms, and heavy rain to MS which led to flash flooding.	A few roads were flooded around Moselle. This resulted in widespread flooding of roads, homes, and businesses around the state.
Laurel	6/16/2023	\$30,000	An upper-level disturbance triggered a cluster of thunderstorms along a stationary front boundary. These storms intensified and grew upscale into an intense mesoscale convective system (MCS) as they moved east-southeast along an axis of increased moisture and strong instability that extended toward the Central Gulf Coast.	A few cars were submerged in the Teresa Street underpass in Laurel.
County	6/17/2023	\$1,000	Convergence of moisture along a stationary front in southern Mississippi triggered thunderstorms during the day on June 17th.	A portion of Dome House Road in the Glade community was flooded.
Laurel	7/11/2023	\$1,000	Scattered storms developed each afternoon. A few storms became strong to severe.	Multiple incidences of street flooding were observed in the Laurel area
Hoy	1/24/2024	\$1,000	With an upper-level trough of low pressure situated over Central Plains and a very moist air mass extending north through the Mississippi River Valley, training showers and thunderstorms produced heavy rain and flooding over parts of Mississippi.	Creeks and fields were flooding.
Laurel	6/26/2024	\$1,000	A weakening band of strong storms resulted in a lull in activity after morning storms across western and northern Mississippi on June 26th. By afternoon, instability increased allowing new strong, damaging thunderstorms to develop mostly across eastern Mississippi moving from west to east. Wind was the primary damaging hazard though mostly small hail and heavy rain were also present.	Heavy rainfall rates caused ponding on streets and in poor drainage areas.

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES

Recently, FEMA issued a directive that prevents states from receiving NFIP information such as rep loss or severe rep loss data directly from FEMA. The local jurisdiction should request the information directly from FEMA and share it with the State Planners. The information was requested from the local jurisdictions on multiple occasions. As a result, for continuity of information of the historical occurrences along with the corresponding damage amounts are unknown, unless the Jurisdiction requests the information directly from FEMA and shares it with the committee. The decision was made to leave the existing information in the plan if the Jurisdictions that did not provide the requested information and to add the information that was provided by the local jurisdictions to update the information.

According to FEMA flood insurance policy records as of March 2024, there have been 108 flood losses reported in Jones County through the National Flood Insurance Program (NFIP) since 1978, totaling nearly \$681,965 in claims payments. Currently, this remains the best available data. A summary of these figures for the county is provided in **Table E.8**. It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Jones County were either uninsured, denied claims payment, or not reported.

REPETITIVE LOSS PROPERTIES

No updates to this section can be provided at this time. Information normally used to update this section is not currently accessible. As a result, this information will remain the same for historical purposes.

As of May 2024, there are 20 non-mitigated repetitive loss properties located in Jones County, which accounted for 55 losses and more than \$1,070,226 in claims payments under the NFIP. The average claim amount for these properties is \$18,923. Of

the 55 properties, 16 are single family residential, 2 is other residential, and 2 are non-residential. Without mitigation these properties will likely continue to experience flood losses. **Table E.8** presents detailed information on repetitive loss properties and NFIP claims and policies for Jones County. Currently, this remains the best available data.

TABLE E.8: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSSES IN JONES COUNTY

Location	Flood Losses	Claim Payments	Repetitive Loss Properties	Number of Properties	Number of Losses	Total Payments	Average Payments
Ellisville	5	\$46,027		1	2	\$17,996	\$8,998
Laurel	75	\$398,815		15	44	\$876,069	\$18,831
Sandersville*	--	--		--	--	--	--
Soso*	--	--		--	--	--	--
Unincorporated Area	28	\$237,123		4	9	\$176,161	\$21,753
Jones County Total:	108	\$681,965		20	55	\$1,070,226	

*These communities do not participate in the National Flood Insurance Program. Therefore, no values are reported. *Source: FEMA, NFIP*

The text below describes some of the major events and associated impacts on the county. Similar impacts can be expected with flash flooding.

September 2, 2008—Persistent bands of thunderstorms produced widespread 4 to 6 inches of rain across most of central Jones County. Many roads across the county as well as around Laurel were flooded. On the north side of Laurel, several cars were submerged in a flooded street. This heavy rainfall also flooded some homes and a few apartment complexes. Minor crop damage also occurred from flooded fields and water-soaked crops.

April 12, 2009—Widespread flash flooding occurred as 4 to 6.5 inches of rain fell across the county. Many roads were flooded across the county with several washed out. A portion of Highway 29 was undermined and was closed for a period of time. Additionally, numerous streets were flooded in and around Laurel.

April 28, 2014—Heavy rainfall caused extensive flooding in and around Laurel. Multiple roads were flooded with several cars under water and stalled. Some water rescues were performed as people were trapped in their vehicles.

March 10, 2016—Numerous roads were flooded across Jones County. Flooding occurred on US Highway 11 near the Jones and Jasper County border. Water was across US Highway 11 in the Pendorff Community. A bridge collapsed along Iris Drive in Laurel. One water rescue was performed from a vehicle in this location. Three Mile Stretch Road was flooded near Ellisville. Logs floated across the road from recent logging. A dirt driveway into a trailer park along Burnt Bridge Road was washed out. This cut off several residences from the road.

April 3, 2017—Water backed up into a home on West 21st Street in Laurel. Fifteen homes were threatened by flood waters. A foot of water entered Hardee's on Highway 11. Streets were flooded in Laurel.

December 28, 2018—Flash flooding occurred on streets in Laurel. Water entered homes on Ferrell Place and Roberts Street in Laurel. Water entered a home on Triangle Drive in the Glade community and a boat rescue occurred. Water was up to the bottom of the stop sign. Water entered a home on Hoy Green Acres Circle. Five water rescues occurred in parts of the county. Three homes flooded in the Calhoun Community west of Laurel, which resulted in water rescues. Homes were also flooded on Susie B Ruffin Avenue at E. 24th Street near Laurel. A bridge was flooded on MS Highway 184 east of Laurel.

PROBABILITY OF FUTURE OCCURRENCES

Due to the unpredictable nature of this hazard, flood events will remain a threat in Jones County, and the probability of future occurrences will remain highly likely (100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood.

The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the county. For example, the areas surrounding Ellisville, Laurel, and Sandersville have more floodplain and thus a higher risk of flooding than the area surrounding Soso. Flooding is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. In the first ten years of this century (2000-2010) there were 29 flooding events, and in the previous fourteen years (2011-2024) there have been 75 flooding events. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

E.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Erosion in Jones County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Jones County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Jones County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Jones County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

If the climate continues to change as scientists predict, the higher intensity and magnitude of storms and the increasing drought and high heat days, can lead to erosion in areas that have not been impacted by erosion in the past.

E.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

According to the Mississippi Department of Environmental Quality, there are five high hazard dams in Jones County. **Figure E.3** shows the location of each of these high hazard dams and **Table E.9** lists them by name. This data has not changed since

the last plan update. According to a consensus of local government officials and the Regional Hazard Mitigation Council, a majority of these dams would not pose a major threat in a breach or failure occurrence.

FIGURE E.3: JONES COUNTY REGION HIGH HAZARD DAM LOCATIONS

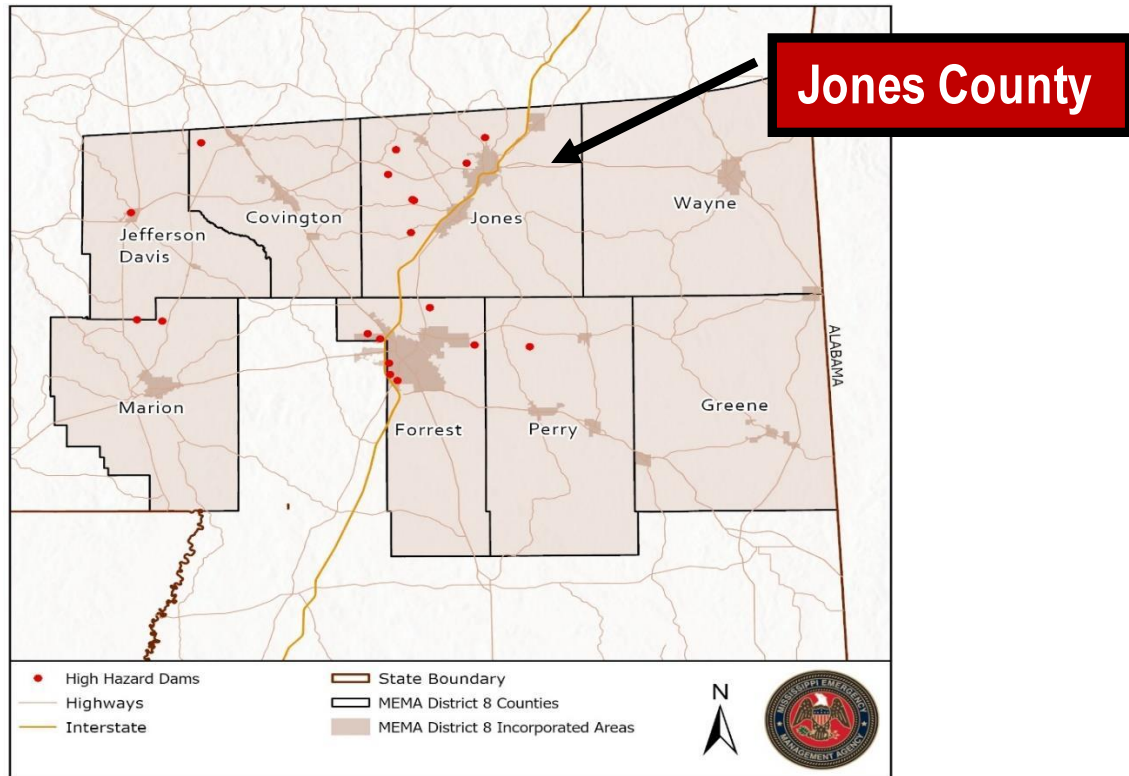


TABLE E.9: JONES COUNTY HIGH HAZARD DAMS

Hazard Potential	Dam Name
High	<i>Lake Hatten Dam</i>
High	<i>Lake Ivell Dam</i>
High	<i>Big Creek Watershed Structure 9 Dam</i>
High	<i>Big Creek Water Park Dam</i>
High	<i>Thunder Lake Dam</i>

HISTORICAL OCCURRENCES

Two dam breaches were reported in Jones County at Indian Springs Lake in 1993 and Lake Getaway in 2010. There were no reports of deaths or injuries, and the damage caused by these events was minimal. However, several breach scenarios in the county could be catastrophic.

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

E.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically

depends on the normal expected severity of local winter weather. Jones County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of thirteen recorded winter storm events in Jones County since 2002. These events resulted in over \$1.7M in damages. Detailed information on the recorded winter storm events can be found in **Table E.10**.

TABLE E.10: HISTORICAL SUMMARY OF WINTER STORM EVENTS IN JONES COUNTY

Date	Type	Injuries/ Deaths	Property Damage
1/1/2002	Heavy Snow	0/0	\$5,000
1/19/2008	Heavy Snow	0/0	\$100,000
12/11/2008	Winter Weather	0/0	\$0
12/4/2009	Heavy Snow	0/0	\$0
2/11/2010	Heavy Snow	0/0	\$800,000
1/9/2011	Ice Storm	0/0	\$30,000
2/3/2011	Ice Storm	0/0	\$400,000
1/28/2014	Heavy Snow	0/0	\$0
1/6/2017	Sleet	0/0	\$20,000
12/7/2017	Heavy Snow	0/0	\$200,000
1/16/2018	Winter Weather	0/0	\$0
2/15/2021	Ice Storm	0/0	\$150,000
1/15/2024	Winter Weather	0/0	\$20,000
Total:	13	0/0	\$1,705,000

Source: NCED/NOAA

January 1, 2002—A winter storm produced heavy snow across portions of southeast Mississippi. The heaviest snow recorded during the storm was four to four- and one-half inches. Icy bridges made traveling across the region very treacherous. As a result, several accidents occurred with two fatalities in Jones County.

January 19, 2008—This storm produced heavy snow across the region, with an average of three to four inches of snow. Some heavier amounts, between four to five inches, also fell in isolated areas. At the height of the snow, temperatures fell to near freezing, and accumulations occurred on roadways resulting in a number of traffic accidents. Additionally, some power outages occurred in the heaviest snow band due to the weight of wet snow on limbs and lines. The heaviest snow fell in the areas around Covington, Jefferson Davis, and Jones Counties.

December 11, 2008—Light sleet changed over to light snow by 630 am. Got a first report from the post office in Ellisville...which estimated one inch on the ground at 1130 am. A half inch was observed at Laurel at this time. At 140 pm one inch of snow was noted by a coop observer at Big Creek Water Park. The snow decreased to flurries after 2 pm and exited the region by 720 pm.

February 11, 2010—Up to 5 inches of snow was reported across portions of Jones County, with 5 inches reported near Ellisville.

January 9, 2011—Sleet and freezing rain began falling across the county during the morning hours. Bridges along Highway 15 north and south of Laurel, as well as along Highway 84 were iced over by early evening. Trees began snapping from ice accumulation by 8:00pm, including one tree that was down along Highway 28 at Gitano.

February 3, 2011—An ice storm developed across the area on February 3rd into the early morning hours of the 4th. While this icing event was not devastating, the impact to travel was a major issue across the region. Thousands of accidents occurred

from slick roads. As a result of the accidents, three fatalities occurred along with a handful of injuries. Overall, most areas received 0.25 to 0.5 inches of ice accumulation from freezing rain. Additionally, some areas had a mix of precipitation with sleet accumulating. Some snow did occur, but those were just across select areas and the accumulation was mainly one inch or less. A quarter inch of ice accumulated across Jones County with nearly all bridges iced over. Many accidents were reported.

January 28, 2014—Two to three inches of snow mixed with some sleet fell across the northern and northwestern portions of the county.

January 6, 2017—Up to one-half inch of sleet accumulated on Bridges, overpasses and other elevated surfaces. The highest accumulations fell over the northern portions of the county. One half an inch was reported at the big creek water park.

December 7, 2017—An average of 5 to 7 inches of heavy snow fell across Jones County, with up to 8 inches falling west of Ellisville. The accumulating snow downed trees and limbs across the county, resulting in power outages and blocking roadways. Numerous traffic accidents also occurred across the county.

January 16, 2018—Light snow fell across the county, with accumulations of up to 1.6 inches.

February 15, 2021—Freezing rain fell across the county. Accumulations of around three tenths of an inch occurred in the western part of the county, with lesser amounts in the eastern part. Ice accumulated in trees and on power lines. Numerous limbs were down along with multiple trees. Power outages occurred.

January 15, 2024—Light accumulations of freezing rain and sleet caused slick road conditions across the county, and a single car accident occurred on Interstate 59 near Exit 90 due to slick road conditions.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Jones County. According to historical information, the annual probability is possible (between 1 and 10 percent).

E.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Jones County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Jones County had drought levels (including abnormally dry) in thirteen times between the years, 2000-2024. **Table E.11** shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE E. 11: HISTORICAL DROUGHT OCCURRENCES IN JONES COUNTY

Abnormally Dry Moderate Drought Severe Drought Extreme Drought Exceptional Drought

Location	Date	Injuries/ Deaths	Property Damage	Crop Damage	Event/ Severity
Jones County	10/1/2006	0/0	\$0	\$1,000,000	D3
Jones County	4/25/2007	0/0	\$0	\$0	D2
Jones County	5/1/2007	0/0	\$0	\$700,000	D4
Jones County	6/1/2007	0/0	\$0	\$900,000	D4
Jones County	7/1/2007	0/0	\$80,000	\$0	D2
Jones County	10/1/2010	0/0	\$0	\$500,000	D2
Jones County	10/13/2015	0/0	\$0	\$1,000	D2
Jones County	10/25/2016	0/0	\$0	\$30,000	D4
Jones County	11/1/2016	0/0	\$50,000	\$0	D3
Jones County	12/1/2016	0/0	\$0	\$50,000	D3
Jones County	9/1/2023	0/0	\$0	\$0	D3
Jones County	10/1/2023	0/0	\$0	\$0	D3
Jones County	11/1/2023	0/0	\$0	\$50,000	D4
Total:	13	0/0	\$130,000	\$3,231,000	

Source: NCED/NOAA

October 2006—During a four-and-a-half-month period, from June to the middle of October, abnormally dry conditions prevailed across most of the Jackson, MS County Warning Area (CWA). Widespread drought conditions were reported across the area during this period. The U.S. Drought Monitor classified the drought as extreme (D3) over Southeast Mississippi. Drought conditions in the region peaked in intensity during early August over this area.

April to July 2007—During the month of May, the drought worsened and expanded a little as only a spattering of rain occurred across the area with the highest totals falling along and west of the Mississippi River. Actually, the area defined by severe drought (D2) only expanded by a few counties. By the end of May, crops across the state were beginning to feel the impact of the very dry conditions. At that point, some damage to crops had occurred with only small losses to yields expected. Extended drought conditions made conditions worse with more substantial crop damage/losses with no rain occurring into the month of June as most of the forecast area saw less than 40% of the normal rainfall. Historical climate sites ran some 15 to 20 inches below normal for rainfall with deficits now higher than the yearly total. With the drought conditions reaching extreme levels, area farmers and crops began feeling the effects. Many crops from corn to soybeans were affected with yields much less than normal by harvest time. The quality of the crops were affected as well due to the dry conditions.

The extreme to exceptional drought, which had gripped a large portion of the region since May, finally was reduced during the first and middle portion of July.

October 2010—Rainfall was 1 to 3 inches below normal for the month. This resulted in moderate to severe drought conditions across the county by the end of the month. Very dry conditions continued across central Mississippi during most of October. Crops were put under stress under the warm and dry conditions. The likely impact will be less crop yields for harvest time.

October 2015—The very dry conditions continued across Central Mississippi in October. The extended dry stretch resulted in an area of Severe (D2) drought developing across the area by October 13th. Approximately 25 to 50 percent of normal rainfall occurred across this area from August into mid-October. Crops were put under more stress from the dry and hot conditions.

October to December 2016—Severe (D2) drought conditions occurred in Jones County in October. This resulted in stress on crops due to the dry, hot conditions. In November, very dry conditions continued into November, which resulted in an area of severe drought (D2). This eventually turned into extreme (D3) drought across Jones County by the end of the month. Crops were put under more stress from the dry and hot conditions. Very dry conditions continued into December, which resulted in an area of severe drought (D2). Crops were put under more stress from the dry conditions. The drought eased by the middle of the month.

September to November 2023—Drought conditions in Jones County intensified from D1 (Moderate Drought) to D3 (Extreme Drought) as depicted on the U.S. Drought Monitor. Drought conditions in Jones County persisted at D3 (Extreme Drought) as depicted on the U.S. Drought Monitor through October. In December, drought conditions in Jones County persisted at D3 (Extreme Drought) as depicted on the U.S. Drought Monitor.

The combined effects of persistent above-normal temperatures and below-normal precipitation starting in early July 2023 resulted in mounting drought impacts across much of the state of Mississippi. Through the month of November, D3 (Extreme Drought), as depicted on the U.S. Drought Monitor. These conditions placed a severe stress on pastures for livestock and cropland at the end the growing season. Pine plantations and Christmas tree farms experienced severe losses especially among younger trees. In a study of over 13 million forested acres through western and central Mississippi surveyed by the Mississippi Forestry Commission, it was estimated that approximately 80,000 acres of pine trees were killed by drought stress. In the study area, this accounted for approximately 12.5 million pine trees lost. Stream flows on creeks and rivers were reduced.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

July 2005—A five-day heat wave covered the area. Temperatures were consistently above 95 degrees. The agricultural industry was hit particularly hard in the cattle and catfish sectors. Water supply issues were encountered by cities and a burn ban was implemented due to the high fire risk.

August 2005—A heat wave covering the south began in mid-August and lasted about 10 days. High temperatures were consistently over 95 degrees and surpassed 100 degrees on some days. It was the first time since August 2000 that 100-degree temperatures reached the area.

July 2006—A short heat wave impacted most of the area temperatures in the 90s to around 100 for five straight days.

August 2007—A heat wave gripped most of the area with the warmest temperatures since 2000. It lasted from August 5th to the 16th.

August 1-4, 2010—A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.

December 2016—Very dry conditions continued into December. Crops were put under more stress from the dry conditions. The drought eased by the middle of the month.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Jones County has a probability level of highly likely (100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude

Heat Wave

Based on historical occurrence information, it is assumed that all of Jones County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could have a large impact on the counties' crops, economy, and population.

E.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2023, Jones County experiences an average of 22.2 wildfires annually which burn an average of 180 acres per year. The data indicates that most of these fires are small, averaging eight acres per fire. **Table E.12** provides a summary of wildfire occurrences in Jones County since the last update, and **Table E.13** lists the number of reported wildfire occurrences in the county between the years 2010 and 2023.

TABLE E.12: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2023) *

Jones County	
Average Number of Fires per year	15.8
Average Number of Acres Burned per year	165.6
Average Number of Acres Burned per fire	10.48

Source: MS Forestry Commission

TABLE E.13: HISTORICAL WILDFIRE OCCURRENCES IN JONES COUNTY

Jones County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	48	53	22	11	30	33	21	5	7	6	5	6	20	42
Number of Acres Burned	372	400	84	157	358	164	111	30	16	75	104	47	229	373

Source: US Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Wildfire events will be an ongoing occurrence in Jones County. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due to local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to Jones County for future wildfire events is likely (a 10 and 100 percent annual probability).

If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact on wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

If the predicted increase in heavy rains occurs, it can also cause flooding and erosion, which can also make the area more susceptible to wildfires.

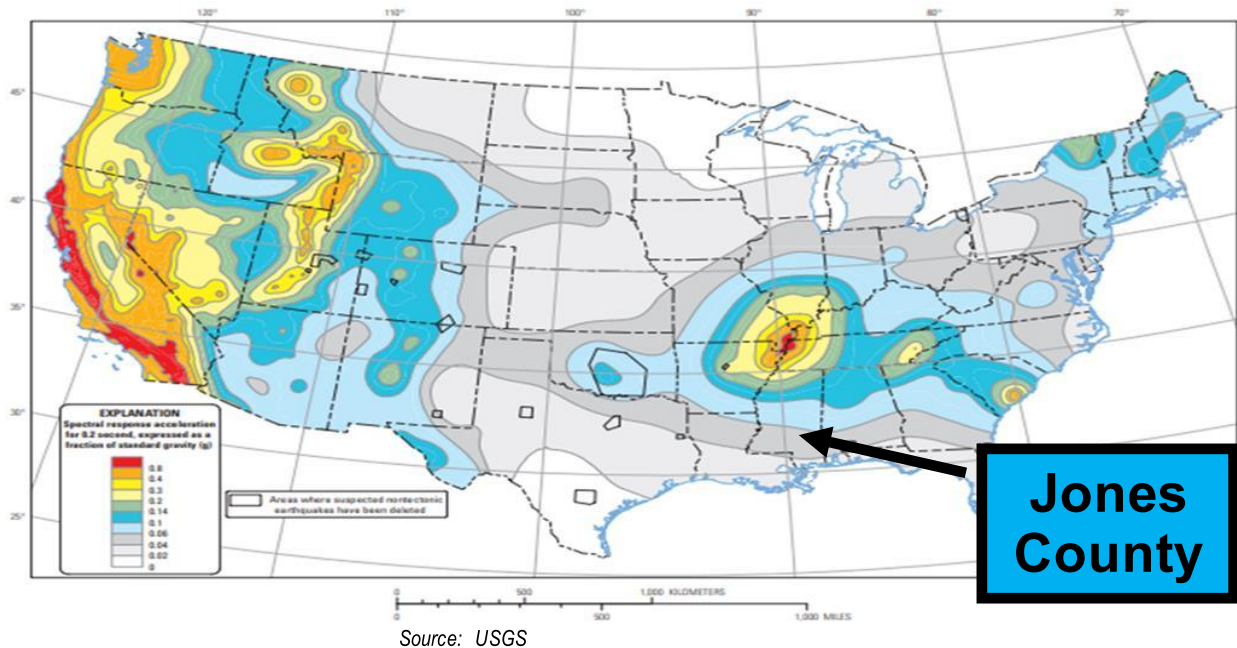
E.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure E.4 shows the intensity level associated with Jones County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake,

geomagnetic, and landslide hazards. According to this map, Jones County lies within an approximate zone of level “2” to “3” ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE E.4: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS



HISTORICAL OCCURRENCES

No earthquakes are known to have affected Jones County since 1638. **Table E.14** provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 and 2024.

TABLE E.14: SUMMARY OF SEISMIC ACTIVITY IN JONES COUNTY

Location	Date	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
Ellisville	--	0	--	--
Laurel	--	0	--	--
Sandersville	--	0	--	--
Soso	--	0	--	--
Unincorporated Area	--	0	--	--
Jones County Total:		0	--	--

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Jones County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

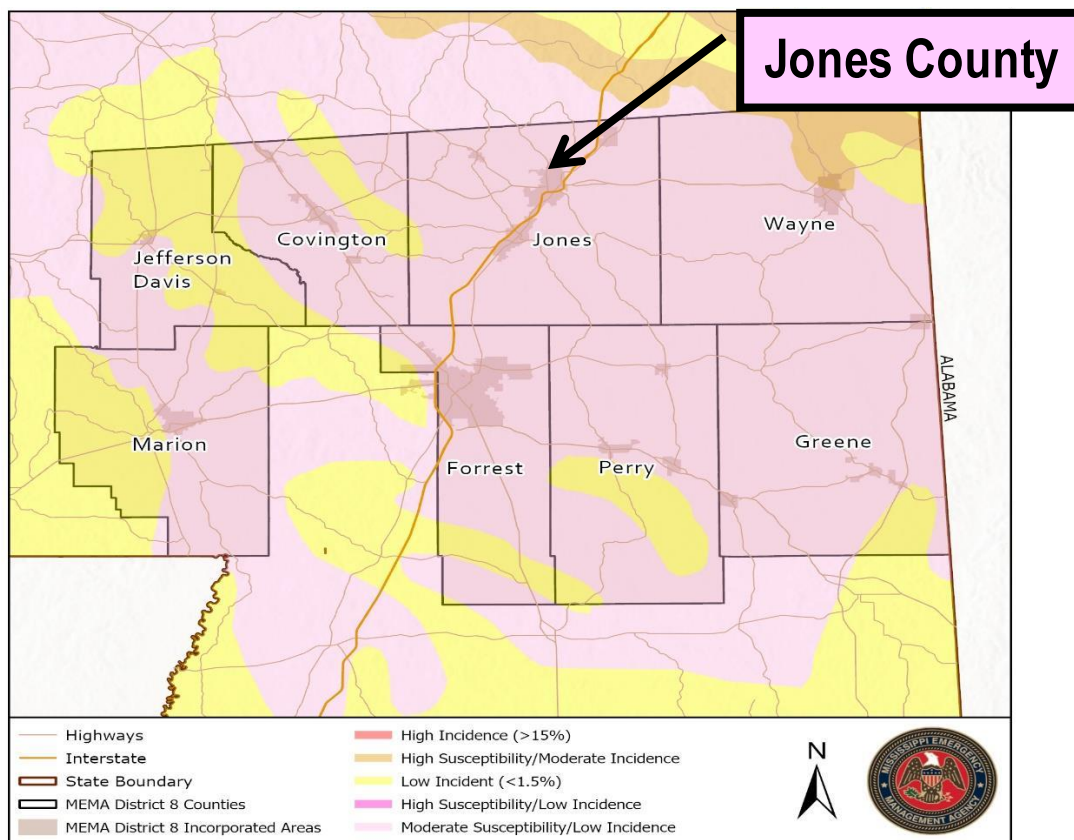
E.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. The most frequent and widespread damaging landslides in the U.S. are induced by prolonged or heavy rainfall. The majority of rainfall-induced landslides are shallow, small, and move quickly. Landslides are possible throughout Jones County.

According to **Figure E.5** below, Most county falls under a Moderate Incidence/low incidence area (light pink) with a small area of Low Incident (yellow). This indicates that less than 1.5 percent of the area is involved in land sliding. The areas in yellow are defined as low incidence and low susceptibility. The areas in light pink, however, indicate that a moderate susceptibility to land sliding activity is present. There are no changes with susceptibility to the landslide hazard since the last plan update.

FIGURE E.5: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF JONES COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Jones County. Landslide events typically occur in isolated areas.

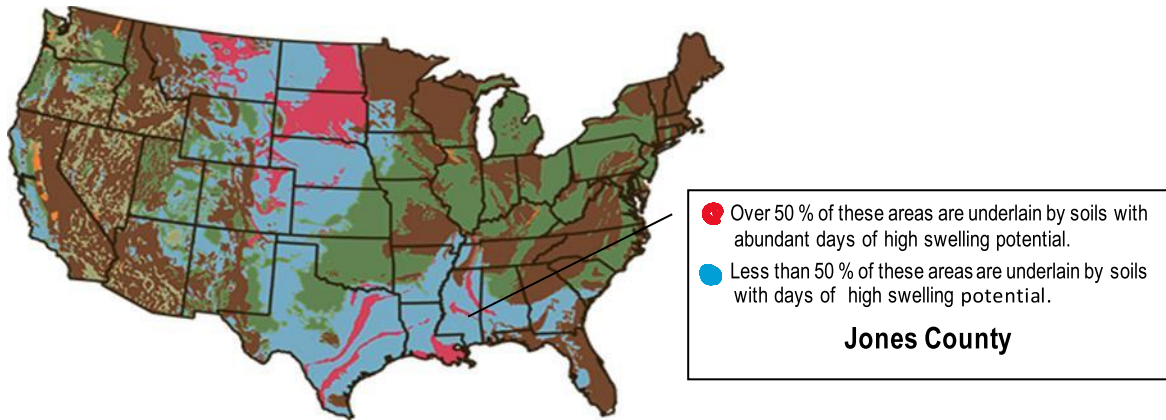
PROBABILITY OF FUTURE OCCURRENCES

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that all areas in Jones County have a low landslide incidence rate. However, nearly all areas are reported as having moderate susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Jones County have greater risk than others given factors such as steepness on slope and modification of slopes. Also, as the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

E.2.9 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Jones County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure E.6**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential.

FIGURE E.6: SWELLING CLAYS IN MISSISSIPPI

Source: USGS

HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Jones County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

E.2.10 Hurricane and Tropical Storm

LOCATION AND SPATIAL EXTENT

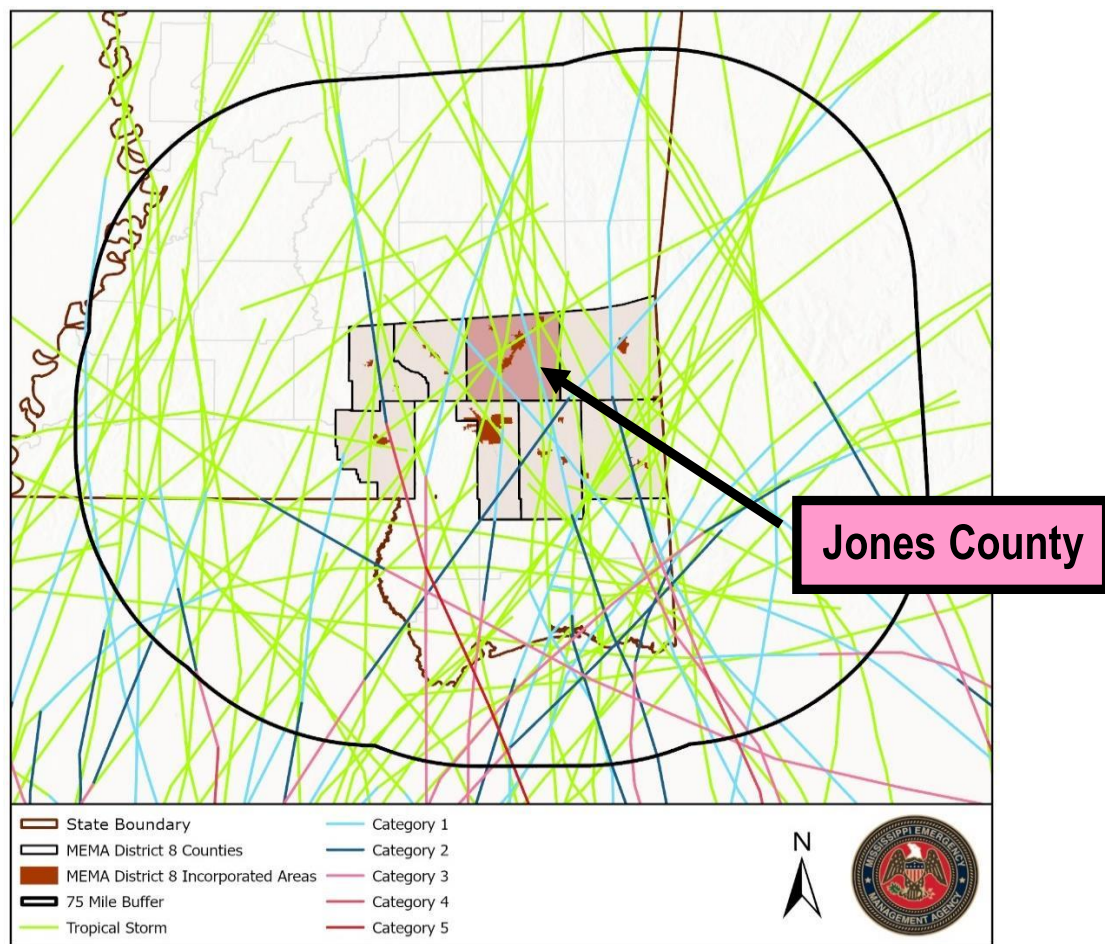
Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Jones County. All areas in Jones County are equally susceptible to hurricane and tropical storms.

HISTORICAL OCCURRENCES

According to the National Hurricane Center's historical storm track records, a total of 65 hurricanes have passed within 75 miles of Jones County since 1851. This includes 1 category 5 storm, 1 category 4 storm, 6 category 3 storms, 5 category 2 storms, 10 category 1 storms, and 41 tropical storms as shown in **Figure E.7**.

Of the recorded storm events, a total of 11 tracks passed directly through the county including Hurricanes Edith (1971), Bill (2003), and Katrina (2005). Most storms were tropical storms when they traversed the county with the exception of four Category 1 storms: Unnamed (1855), Unnamed (1609), Unnamed (1916) and Hurricane Katrina (2005). **Table E.15** provides the detail for each storm that passed through the county including date of occurrence, name (if applicable), maximum wind speed (as recorded when traversing the county) and category of the storm based on the Saffir-Simpson Scale.

FIGURE E.7: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF JONES COUNTY



Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1979 (Hurricane Frederic), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Dennis), 2005 (Hurricane Katrina), 2012 (Hurricane Isaac), and 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial damage in the area due to high winds and flooding.

TABLE E.15: HISTORICAL STORM TRACKS WITHIN 75 MILES OF JONES COUNTY (1850–2024)

Date of Occurrence	Storm Name	Maximum Wind Speed	Storm Category	Disaster Declaration	Property Damage	Crop Damage
9/16/1855	Unnamed	80 (mph)	Category 1	--	Unknown	Unknown
7/12/1872	Unnamed	46 (mph)	Tropical Storm	--	Unknown	Unknown
9/8/1883	Unnamed	63 (mph)	Tropical Storm	--	Unknown	Unknown
9/27/1906	Unnamed	75 (mph)	Category 1	--	Unknown	Unknown

6/13/1912	Unnamed	52 (mph)	Tropical Storm	--	Unknown	Unknown
7/6/1916	Unnamed	92 (mph)	Category 1	--	Unknown	Unknown
10/18/1923	Unnamed	57 (mph)	Tropical Storm	--	Unknown	Unknown
9/1/1932	Unnamed	69 (mph)	Tropical Storm	--	Unknown	Unknown
9/16/1960	Hurricane Ethel	40 (mph)	Tropical Storm	--	Unknown	Unknown
9/4/1969	Hurricane Camille	80 (mph)	Category 1	Yes, #271	Unknown	Unknown
1979	Hurricane Frederic	Unknown	Tropical Storm	Yes, # 599	Unknown	Unknown
9/25/1998	Hurricane Georges	Unknown	Tropical Storm	Yes, #1251	Unknown	Unknown
7/1/2003	Hurricane Bill	Unknown	Tropical Storm	No	\$0	\$0
9/16/2004	Hurricane Ivan	95 (mph)	Category 1	Yes, #1550	\$93,750	\$31,300
7/10/2005	Hurricane Dennis	55 (mph)	Tropical Storm	Yes, #1594	\$100,000	\$150,000
8/29/2005	Hurricane Katrina	110 (mph)	Category 3	Yes, #1604	\$750,000,000	\$80,000,000
9/1/2008	Hurricane Gustav	50 (mph)	Tropical Storm	No	\$200,000	\$0
8/29/2012	Hurricane Isaac	45 (mph)	Tropical Storm	Yes, 4081	\$50,000	\$0
10/7/2017	Hurricane Nate	40 (mph)	Tropical Storm	No	\$12,000	\$0
9/5/2018	Hurricane Gordon	35 (mph)	Depression	No	\$50,000	\$0
10/28/2020	Hurricane Zeta	43 (mph)	Tropical Storm	No	\$50,000	\$0
8/30/2021	Hurricane Ida	50 (mph)	Tropical Storm	Yes, #4626	\$75,000	\$0
Total:	22	--	--	--	\$750,630,750	\$80,181,300

Source: National Hurricane Center and NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted the county as found below:

May 7, 2005—Hurricane Dennis made landfall during the afternoon of July 10th near Navarre Beach Florida as a category 3 Hurricane. The storm moved north-northwest across Southwest Alabama and then into East-Central Mississippi and finally across Northeast Mississippi during the overnight hours. Wind gusts over tropical storm force were common across areas east of a line from Starkville to Newton to Hattiesburg. These winds caused several hundred trees to uproot or snap and took down numerous power lines. Additionally, a total of 21 homes or businesses sustained minor to major damage from fallen trees or gusty winds. Heavy rainfall was not a major issue as Dennis steadily moved across the region. Rainfall totals between 2 and 5 inches fell across Eastern Mississippi over a 12-hour period. One indirect fatality occurred in Jasper county from an automobile accident due to wet roads.

August 29, 2005—Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20. This hurricane has changed life as we know it across the Gulf Coast region which will take many years to return to normal. Wind damage to structures was widespread as many roofs were blown off or partially peeled off. Hundreds of signs were shredded or blown down. Many businesses sustained structural damage as windows were broken, roofs were blown off and walls were collapsed.

Millions of trees were uprooted and snapped. Power poles and lines were snapped and taken down from wind and trees. It was the thousands of downed trees which caused the most significant structural damage as these trees fell onto homes and businesses. Ten fatalities were caused by trees falling on homes or on people in Jones county.

This region received an enormous blow to the timber industry as a large percentage of trees were blown down or severely damaged. This timber damage will affect this region for decades. Additionally, the combination of the winds and loss of power caused significant losses to the poultry industry and other agricultural industries across this region. The agricultural industry was severely hit across this region with the biggest losses in the timber and poultry industries.

The utility companies across the region were severely hit as well. Thousands of power poles and countless miles of power lines were taken down by fallen trees and wind. The power outages across the region were widespread and lasted for a period of a few days to as long as 4 weeks. The agriculture and forestry industries of the state were severely affected by Hurricane Katrina. The timber industry was hit the hardest with timberland damaged estimated around 1.3 billion dollars. The devastating impact to this industry will be felt for decades. Another particularly hard-hit industry was the poultry industry. In the region where the hurricane passed, about 9000 chicken houses exist and hold 20-25 thousand birds apiece. Approximately, 300 of these houses were destroyed and nearly another 2400 were damaged. The combination of lost birds and damaged houses bring damage estimates between 100-120 million dollars. The region's Row Crops were hard hit as well. The main crops in this industry are cotton, rice, corn and soybeans. The damage varied and was dependent on location.

August 29, 2012—Hurricane Isaac caused multiple trees to blowdown across the county between the afternoon of the 29th and mid-day on the 30th. By late evening on the 29th, trees were blown down on 5th Avenue in Laurel, U.S. 84 near Hebron, and Mississippi Highway 29 north of Ellisville.

November 28, 2020—Tropical storm force winds from **Hurricane Zeta** blew down scattered trees across the county. A peak wind gust of 46 mph was measured at 9:25 p.m. CDT at the Hattiesburg-Laurel Regional Airport, and a peak gust of 43 mph was measured at 9:55 p.m. at Hesler-Noble Field in Laurel.

August 30, 2021—Hurricane Ida brought tropical storm force wind gusts downed numerous trees and power lines across the county. At least 25 roads were blocked by fallen trees.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 per cent). Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientists and meteorologists predict tropical cyclones will increase in frequency, magnitude, and intensity as the climate continues to change. These increases could be catastrophic to MS Coastal areas and the counties near the coast. Scientists also predict that hurricanes could increase in frequency and strength in the near future due the effects of Climate Change. This can be seen in the 2023 season with 23 named storms, 11 hurricanes, and 5 major hurricanes. This prediction makes the season the third most active season on record, behind the 2005 season with 28, and the 2020 season with a total of 30. It is expected that an above-average season next season with up to 25 named storms and 4-7 major hurricanes.

E.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Jones County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Jones County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Jones County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Jones County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in eleven disaster declarations in Jones County in 1971, 1973, 1974, 1987, 1990, 2001, 2014, 2016, 2018, 2020, and 2023. According to NCDC, there have been 272 reported thunderstorm and high wind events since 2000 in Jones County. These events caused over \$8M in damages. There were also reports of one fatality and eleven injuries. **Table E.16** summarizes this information. **Table E.17** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE E.16: SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN JONES COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
<i>Ellisville</i>	33	0	0	\$669,000	\$0
<i>Laurel</i>	31	5	0	\$2,513,600	\$0
<i>Sandersville</i>	33	1	0	\$1,376,600	\$0
<i>Soso</i>	17	0	0	\$151,500	\$0
<i>Unincorporated Area</i>	160	5	1	\$3,385,810	\$130,000
Jones County Total:	274	11	1	\$8,041,510	\$130,000

Source: NCED/NOAA

TABLE E.17: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN JONES COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
The City of Ellisville							
<i>Ellisville</i>	1/29/2001	TSTM Wind	<i>Unknown</i>	0	0	\$4,000	\$0
<i>Ellisville</i>	7/22/2003	TSTM Wind	<i>55 kts.</i>	0	0	\$55,000	\$0
<i>Ellisville</i>	8/6/2003	TSTM Wind	<i>50 kts.</i>	0	0	\$1,000	\$0
<i>Ellisville</i>	6/21/2004	TSTM Wind	<i>55 kts.</i>	0	0	\$2,000	\$0

<i>Ellisville</i>	7/2/2004	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Ellisville</i>	7/16/2004	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Ellisville</i>	4/30/2005	TSTM Wind	65 kts.	0	0	\$25,000	\$0
<i>Ellisville</i>	5/29/2005	TSTM Wind	55 kts.	0	0	\$30,000	\$0
<i>Ellisville</i>	6/23/2006	TSTM Wind	58 kts.	0	0	\$50,000	\$0
<i>Ellisville</i>	8/5/2006	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Ellisville</i>	8/15/2006	TSTM Wind	60 kts.	0	0	\$100,000	\$0
<i>Ellisville</i>	2/13/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Ellisville</i>	6/18/2007	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Ellisville</i>	10/17/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Ellisville</i>	1/29/2008	TSTM Wind	55 kts.	0	0	\$0	\$0
<i>Ellisville</i>	2/12/2008	TSTM Wind	55 kts.	0	0	\$8,000	\$0
<i>Ellisville</i>	4/4/2011	TSTM Wind	74 kts.	0	0	\$300,000	\$0
<i>Ellisville</i>	7/13/2011	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Ellisville</i>	8/10/2011	TSTM Wind	55 kts.	0	0	\$7,000	\$0
<i>Ellisville</i>	4/3/2012	TSTM Wind	50 kts.	0	0	\$6,000	\$0
<i>Ellisville</i>	7/4/2012	TSTM Wind	55 kts.	0	0	\$15,000	\$0
<i>Ellisville</i>	7/12/2012	TSTM Wind	40 kts.	0	0	\$500	\$0
<i>Ellisville</i>	6/5/2013	TSTM Wind	55 kts.	0	0	\$0	\$0
<i>Ellisville</i>	6/29/2013	TSTM Wind	50 kts.	0	0	\$1,500	\$0
<i>Ellisville</i>	9/3/2013	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Ellisville</i>	2/20/2014	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Ellisville</i>	7/5/2015	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Ellisville</i>	4/14/2016	TSTM Wind	50 kts.	0	0	\$12,000	\$0
<i>Ellisville</i>	5/12/2017	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>Ellisville</i>	5/21/2017	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Ellisville</i>	6/10/2018	TSTM Wind	39 kts.	0	0	\$2,000	\$0
<i>Ellisville</i>	5/11/2019	TSTM Wind	35 kts.	0	0	\$3,000	\$0
<i>Ellisville</i>	8/2/2020	TSTM Wind	50kts.	0	0	\$5,000	\$0

The City of Laurel

<i>Laurel</i>	1/3/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Laurel</i>	4/2/2000	TSTM Wind	<i>Unknown</i>	0	0	\$110,000	\$0
<i>Laurel</i>	7/17/2000	TSTM Wind	<i>Unknown</i>	0	1	\$15,000	\$0
<i>Laurel</i>	7/20/2000	TSTM Wind	<i>Unknown</i>	0	0	\$3,000	\$0
<i>Laurel</i>	7/22/2000	TSTM Wind	<i>Unknown</i>	0	0	\$4,000	\$0
<i>Laurel</i>	8/10/2000	TSTM Wind	<i>Unknown</i>	0	0	\$55,000	\$0
<i>Laurel</i>	12/13/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Laurel</i>	1/19/2001	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Laurel</i>	3/12/2001	TSTM Wind	<i>Unknown</i>	0	1	\$100,000	\$0
<i>Laurel</i>	5/31/2001	TSTM Wind	<i>Unknown</i>	0	0	\$40,000	\$0
<i>Laurel</i>	6/27/2001	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Laurel</i>	7/12/2001	TSTM Wind	<i>Unknown</i>	0	0	\$25,000	\$0
<i>Laurel</i>	12/13/2001	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Laurel</i>	3/20/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Laurel</i>	5/17/2002	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Laurel</i>	7/8/2002	TSTM Wind	<i>Unknown</i>	0	0	\$500	\$0

Laurel	7/25/2002	TSTM Wind	Unknown	0	0	\$2,000	\$0
Laurel	8/2/2002	TSTM Wind	Unknown	0	0	\$10,000	\$0
Laurel	12/24/2002	TSTM Wind	60 kts.	0	0	\$3,500	\$0
Laurel	4/6/2003	TSTM Wind	55 kts.	0	0	\$30,000	\$0
Laurel	5/17/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Laurel	7/11/2003	TSTM Wind	55 kts.	0	0	\$10,000	\$0
Laurel	7/22/2003	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Laurel	5/1/2004	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Laurel	7/2/2004	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Laurel	7/15/2004	TSTM Wind	58 kts.	0	0	\$3,000	\$0
Laurel	1/13/2005	TSTM Wind	58 kts.	0	0	\$15,000	\$0
Laurel	3/31/2005	TSTM Wind	60 kts.	0	0	\$20,000	\$0
Laurel	11/15/2005	TSTM Wind	55 kts.	0	0	\$15,000	\$0
Laurel	5/9/2006	TSTM Wind	57 kts.	0	0	\$60,000	\$0
Laurel	6/23/2006	TSTM Wind	60 kts.	0	0	\$70,000	\$0
Laurel	8/9/2006	TSTM Wind	60 kts.	0	0	\$400,000	\$0
Laurel	2/25/2007	TSTM Wind	53 kts.	0	0	\$12,000	\$0
Laurel	6/19/2007	TSTM Wind	53 kts.	0	0	\$70,000	\$0
Laurel	8/1/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
Laurel	1/29/2008	TSTM Wind	55 kts.	0	1	\$50,000	\$0
Laurel	8/7/2008	TSTM Wind	60 kts.	0	0	\$0	\$0
Laurel	5/10/2009	TSTM Wind	60 kts.	0	0	\$200,000	\$0
Laurel	5/2/2010	TSTM Wind	55 kts.	0	0	\$300,000	\$0
Laurel	11/30/2010	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Laurel	4/4/2011	TSTM Wind	56 kts.	0	0	\$30,000	\$0
Laurel	4/26/2011	TSTM Wind	50 kts.	0	0	\$0	\$0
Laurel	6/7/2011	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Laurel	6/28/2011	TSTM Wind	43 kts.	0	0	\$5,000	\$0
Laurel	5/12/2012	TSTM Wind	50 kts.	0	0	\$50,000	\$0
Laurel	5/30/2012	TSTM Wind	50 kts.	0	0	\$40,000	\$0
Laurel	7/18/2012	TSTM Wind	35 kts.	0	0	\$100	\$0
Laurel	9/4/2012	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Laurel	12/20/2012	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Laurel	1/30/2013	TSTM Wind	50 kts.	0	0	\$20,000	\$0
Laurel	7/18/2013	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Laurel	10/13/2014	TSTM Wind	52 kts.	0	0	\$3,000	\$0
Laurel	5/20/2015	TSTM Wind	55 kts.	0	0	\$10,000	\$0
Laurel	5/24/2015	TSTM Wind	52 kts.	0	0	\$30,000	\$0
Laurel	6/24/2015	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Laurel	2/15/2016	TSTM Wind	50 kts.	0	0	\$14,000	\$0
Laurel	5/31/2016	TSTM Wind	50 kts.	0	0	\$7,000	\$0
Laurel	8/5/2016	TSTM Wind	39 kts.	0	1	\$500	\$0
Laurel	4/3/2017	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Laurel	4/30/2017	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Laurel	4/3/2018	TSTM Wind	50 kts.	0	0	\$20,000	\$0
Laurel	4/6/2018	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Laurel	5/16/2018	TSTM Wind	50 kts.	0	0	\$20,000	\$0

<i>Laurel</i>	5/30/2018	TSTM Wind	52 kts.	0	0	\$30,000	\$0
<i>Laurel</i>	7/31/2018	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Laurel</i>	6/25/2019	TSTM Wind	43 kts.	0	1	\$2,000	\$0
<i>Laurel</i>	5/22/2020	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Laurel</i>	6/5/2020	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Laurel</i>	6/25/2020	TSTM Wind	54 kts.	0	0	\$10,000	\$0
<i>Laurel</i>	12/13/2020	TSTM Wind	40 kts.	0	0	\$1,500	\$0
<i>Laurel</i>	5/4/2021	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Laurel</i>	3/18/2022	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Laurel</i>	4/13/2022	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Laurel</i>	4/16/2022	TSTM Wind	50 kts.	0	0	\$7,000	\$0
<i>Laurel</i>	6/10/2022	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Laurel</i>	1/3/2023	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Laurel</i>	6/18/2023	TSTM Wind	65 kts.	0	0	\$250,000	\$0
<i>Laurel</i>	5/9/2024	TSTM Wind	56 kts.	0	0	\$1,000	\$0
<i>Laurel</i>	5/14/2024	TSTM Wind	55 kts.	0	0	\$25,000	\$0
<i>Laurel</i>	6/5/2024	TSTM Wind	52 kts.	0	0	\$200,000	\$0
<i>Laurel Airport</i>	7/17/2024	TSTM Wind	42 kts.	0	0	\$500	\$0
The Town of Sandersville							
<i>Sandersville</i>	7/20/2000	TSTM Wind	<i>Unknown</i>	0	0	\$5,000	\$0
<i>Sandersville</i>	8/10/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Sandersville</i>	3/2/2001	TSTM Wind	<i>Unknown</i>	0	0	\$25,000	\$0
<i>Sandersville</i>	7/22/2003	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Sandersville</i>	6/22/2004	TSTM Wind	35 kts.	0	0	\$1,000	\$0
<i>Sandersville</i>	7/15/2004	TSTM Wind	60 kts.	0	0	\$5,000	\$0
<i>Sandersville</i>	5/20/2005	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Sandersville</i>	6/9/2005	TSTM Wind	55 kts.	0	0	\$8,000	\$0
<i>Sandersville</i>	5/10/2006	TSTM Wind	55 kts.	0	0	\$20,000	\$0
<i>Sandersville</i>	7/28/2006	TSTM Wind	65 kts.	0	0	\$70,000	\$0
<i>Sandersville</i>	7/30/2006	TSTM Wind	58 kts.	0	0	\$350,000	\$0
<i>Sandersville</i>	1/10/2008	TSTM Wind	78 kts.	0	0	\$350,000	\$0
<i>Sandersville</i>	12/10/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Sandersville</i>	5/6/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Sandersville</i>	5/15/2009	TSTM Wind	50 kts.	0	0	\$1,600	\$0
<i>Sandersville</i>	5/18/2010	TSTM Wind	60 kts.	0	0	\$60,000	\$0
<i>Sandersville</i>	8/3/2010	TSTM Wind	52 kts.	0	0	\$25,000	\$0
<i>Sandersville</i>	4/11/2011	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Sandersville</i>	6/13/2011	TSTM Wind	50 kts.	0	0	\$100,000	\$0
<i>Sandersville</i>	6/22/2011	TSTM Wind	50 kts.	0	0	\$25,000	\$0
<i>Sandersville</i>	6/11/2012	TSTM Wind	53 kts.	0	0	\$10,000	\$0
<i>Sandersville</i>	11/16/2014	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Sandersville</i>	2/23/2016	TSTM Wind	53 kts.	0	0	\$2,000	\$0
<i>Sandersville</i>	6/17/2016	TSTM Wind	55 kts.	0	1	\$75,000	\$0
<i>Sandersville</i>	9/26/2016	TSTM Wind	45 kts.	0	0	\$9,000	\$0
<i>Sandersville</i>	6/23/2017	TSTM Wind	39 kts.	0	0	\$5,000	\$0
<i>Sandersville</i>	10/4/2019	TSTM Wind	48 kts.	0	0	\$25,000	\$0

Sandersville	6/5/2020	TSTM Wind	52 kts.	0	0	\$1,000	\$0
Sandersville	6/10/2023	TSTM Wind	55 kts.	0	0	\$2,000	\$0
Sandersville	7/30/2023	TSTM Wind	53 kts.	0	0	\$80,000	\$0
Sandersville	5/13/2024	TSTM Wind	55 kts.	0	0	\$5,000	\$0
Sandersville	6/5/2024	TSTM Wind	52 kts.	0	0	\$0	\$0
Sandersville	6/26/2024	TSTM Wind	52 kts.	0	0	\$1,000	\$0
The Town of Soso							
Soso	8/25/2000	TSTM Wind	Unknown	0	0	\$2,000	\$0
Soso	1/19/2001	TSTM Wind	Unknown	0	0	\$1,000	\$0
Soso	3/12/2001	TSTM Wind	Unknown	0	0	\$8,000	\$0
Soso	5/17/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
Soso	7/7/2002	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Soso	7/12/2002	TSTM Wind	Unknown	0	0	\$1,500	\$0
Soso	7/7/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
Soso	3/3/2008	TSTM Wind	60 kts.	0	0	\$30,000	\$0
Soso	4/2/2012	TSTM Wind	50 kts.	0	0	\$7,000	\$0
Soso	4/28/2014	TSTM Wind	60 kts.	0	0	\$50,000	\$0
Soso	7/22/2014	TSTM Wind	54 kts.	0	0	\$5,000	\$0
Soso	3/18/2015	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Soso	2/15/2016	TSTM Wind	50 kts.	0	0	\$4,000	\$0
Soso	4/3/2017	TSTM Wind	52 kts.	0	0	\$25,000	\$0
Soso	4/13/2019	TSTM Wind	52 kts.	0	0	\$8,000	\$0
Soso	5/25/2022	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Soso	6/5/2024	TSTM Wind	52 kts.	0	0	\$5,000	\$0
Unincorporated Area in Jones County							
Countywide	4/1/2000	TSTM Wind	Unknown	0	0	\$2,000	\$0
Countywide	7/16/2000	TSTM Wind	Unknown	0	0	\$4,000	\$0
Countywide	7/20/2000	TSTM Wind	Unknown	0	0	\$10,000	\$0
Countywide	10/6/2000	TSTM Wind	Unknown	0	0	\$15,000	\$0
Countywide	2/16/2001	TSTM Wind	Unknown	0	0	\$5,000	\$0
Ovett	3/2/2001	TSTM Wind	Unknown	0	0	\$5,000	\$0
Eastabuchie	3/12/2001	TSTM Wind	Unknown	0	0	\$5,000	\$0
Countywide	8/20/2001	TSTM Wind	Unknown	0	0	\$20,000	\$0
Ovett	1/19/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
Countywide	7/1/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
Hebron	7/2/2002	TSTM Wind	Unknown	0	0	\$2,000	\$0
Countywide	8/25/2002	TSTM Wind	Unknown	0	0	\$2,000	\$0
Moselle	12/24/2002	TSTM Wind	58 kts.	0	0	\$2,000	\$0
Countywide	5/17/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Countywide	7/22/2003	TSTM Wind	53 kts.	0	0	\$15,000	\$0
Countywide	7/30/2003	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Moselle	8/3/2003	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Ovett	8/20/2003	TSTM Wind	52 kts.	0	0	\$10,000	\$0
Countywide	11/18/2003	TSTM Wind	55 kts.	0	0	\$10,000	\$0
Countywide	6/27/2004	TSTM Wind	53 kts.	0	0	\$5,000	\$0

<i>Tuckers Crossing</i>	7/15/2004	TSTM Wind	55 kts.	0	0	\$2,000	\$0
<i>Countywide</i>	7/16/2004	TSTM Wind	53 kts.	0	0	\$1,000	\$0
<i>Pine Belt RGNL (PIB)</i>	4/30/2005	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>County</i>	3/9/2006	Strong Wind	45 kts.	0	0	\$60,000	\$0
<i>Moselle</i>	5/8/2006	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>Ovett</i>	8/9/2006	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Hebron</i>	4/14/2007	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Countywide</i>	6/9/2007	Strong Wind	39 kts.	0	0	\$10	\$0
<i>Moselle</i>	6/19/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Moselle & Myrick</i>	7/10/2007	TSTM Wind	60 kts.	0	0	\$60,000	\$0
<i>Countywide</i>	7/14/2007	Strong Wind	39 kts.	0	0	\$3,000	\$0
<i>Reddoch</i>	1/10/2008	TSTM Wind	65 kts.	0	0	\$200,000	\$100,000
<i>Moselle</i>	1/31/2008	TSTM Wind	54 kts.	0	0	\$20,000	\$0
<i>Moselle, PIB, & Ovett</i>	2/12/2008	TSTM Wind	70 kts.	0	0	\$12,000	\$15,000
<i>Service</i>	3/3/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Moselle & Blodgett</i>	5/3/2008	TSTM Wind	65 kts.	0	0	\$35,000	\$0
<i>Countywide</i>	5/22/2008	Strong Wind	41 kts.	0	0	\$100	\$0
<i>Tawanta</i>	8/7/2008	TSTM Wind	55 kts.	0	0	\$0	\$0
<i>Pine Belt RGNL (PIB)</i>	8/12/2008	TSTM Wind	53 kts.	0	0	\$2,000	\$0
<i>Hebron & Tuckers</i>	11/24/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Tuckers Crossing</i>	3/26/2009	TSTM Wind	65 kts.	0	0	\$80,000	\$0
<i>Tuckers</i>	4/2/2009	TSTM Wind	50 kts.	0	0	\$1,500	\$0
<i>Moselle</i>	4/12/2009	TSTM Wind	61 kts.	0	0	\$0	\$0
<i>Reddock & Hebron</i>	5/3/2009	TSTM Wind	70 kts.	1	0	\$335,000	\$0
<i>Countywide</i>	7/28/2009	Strong Wind	43 kts.	0	0	\$2,500	\$0
<i>Hebron & Oak Bowley</i>	8/21/2009	TSTM Wind	56 kts.	0	0	\$0	\$0
<i>Oak Bowley & Tuckers</i>	12/9/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Ovett, & Moselle</i>	5/20/2010	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Lanham</i>	6/1/2010	TSTM Wind	58 kts.	0	0	\$40,000	\$0
<i>Hoy</i>	6/5/2010	TSTM Wind	60 kts.	0	0	\$40,000	\$0
<i>Tuckers & Errata</i>	8/3/2010	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Tawanta</i>	8/22/2010	TSTM Wind	60 kts.	0	0	\$10,000	\$0
<i>Hoy</i>	10/12/2010	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Tuckers</i>	11/30/2010	TSTM Wind	65 kts.	0	0	\$50,000	\$0
<i>Countywide</i>	12/12/2010	Strong Wind	40 kts.	0	0	\$25,000	\$0
<i>Tawanta</i>	4/4/2011	TSTM Wind	70 kts.	0	0	\$150,000	\$0
<i>Moselle & Lanham</i>	4/15/2011	TSTM Wind	52 kts.	0	0	\$4,000	\$0
<i>Moselle</i>	5/13/2011	TSTM Wind	50 kts.	0	0	\$30,000	\$10,000
<i>PIB</i>	6/7/2011	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Reddoch</i>	7/4/2011	TSTM Wind	60 kts.	0	0	\$20,000	\$0
<i>Moselle</i>	7/12/2011	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Countywide</i>	9/3/2011	Strong Wind	35 kts.	0	0	\$15,000	\$0
<i>Service</i>	9/4/2011	TSTM Wind	45 kts.	0	0	\$500	\$0
<i>Countywide</i>	2/23/2012	Strong Wind	43 kts.	0	0	\$10,000	\$0
<i>Countywide</i>	3/20/2012	Strong Wind	40 kts.	0	0	\$10,000	\$0
<i>Countywide</i>	3/21/2012	Strong Wind	43 kts.	0	0	\$1,000	\$0
<i>Reddoch</i>	4/3/2012	TSTM Wind	50 kts.	0	0	\$4,000	\$0

Oak Bowery	5/31/2012	TSTM Wind	55 kts.	0	0	\$40,000	\$0
Oak Bowery	7/7/2012	TSTM Wind	40 kts.	0	0	\$5,000	\$0
Tawanta & Moselle	8/6/2012	TSTM Wind	50 kts.	0	0	\$15,000	\$0
PIB	8/9/2012	TSTM Wind	50 kts.	0	0	\$4,000	\$0
Countywide	8/18/2012	Strong Wind	43 kts.	0	0	\$2,000	\$0
Countywide	8/28/2012	Strong Wind	40 kts.	0	0	\$5,000	\$0
Lanham	9/4/2012	TSTM Wind	50 kts.	0	0	\$2,000	\$0
PIB	4/11/2013	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Service	6/5/2013	TSTM Wind	50 kts.	0	0	\$0	\$0
Tuckers	6/29/2013	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Hoy	8/12/2013	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Hoy	9/24/2013	TSTM Wind	40 kts.	0	0	\$1,000	\$0
Countywide	12/21/2013	Strong Wind	40 kts.	0	0	\$6,000	\$0
County	4/28/2014	TSTM Wind	60 kts.	0	0	\$38,000	\$0
Errata	6/22/2014	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Blodgett	6/28/2014	TSTM Wind	54 kts.	0	0	\$5,000	\$0
Hebron	7/22/2014	TSTM Wind	53 kts.	0	0	\$5,000	\$0
Service	10/2/2014	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Tuckers	11/16/2014	TSTM Wind	50 kts.	0	0	\$0	\$0
Twanta & Lanham	12/23/2014	TSTM Wind	52 kts.	0	0	\$2,200	\$0
Errata	3/18/2015	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Myrick	5/31/2015	TSTM Wind	50 kts.	0	0	\$15,000	\$0
Myrick	6/24/2015	TSTM Wind	45 kts.	0	0	\$2,000	\$0
Twanta	7/4/2015	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Hoy	7/18/2015	TSTM Wind	39 kts.	0	0	\$1,000	\$0
PIB & Ovett	7/30/2015	TSTM Wind	40 kts.	0	0	\$14,000	\$0
Countywide	2/2/2016	Strong Wind	35 kts.	0	0	\$20,000	\$0
Blodgett	2/15/2016	TSTM Wind	50 kts.	0	0	\$4,000	\$0
Errata	2/23/2016	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Moselle	3/17/2016	TSTM Wind	58 kts.	0	0	\$100,000	\$0
Countywide	4/27/2016	Strong Wind	35 kts.	0	0	\$5,000	\$0
Lanham	7/6/2016	TSTM Wind	50 kts.	0	0	\$15,000	\$0
County	7/13/2016	TSTM Wind	50 kts.	0	0	\$9,000	\$0
Service	9/25/2016	TSTM Wind	46 kts.	0	0	\$10,000	\$0
Countywide	11/18/2016	Strong Wind	34 kts.	0	0	\$3,000	\$0
Tuckers	11/30/2016	TSTM Wind	45 kts.	0	0	\$5,000	\$0
Hoy & Blodgett	1/2/2017	TSTM Wind	50 kts.	0	0	\$18,000	\$0
County	1/21/2017	TSTM Wind	55 kts.	0	0	\$27,000	\$0
Tuckers	3/27/2017	TSTM Wind	50 kts.	0	0	\$75,000	\$0
Lanham	4/22/2017	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Oak Bowery	5/21/2017	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Myrick	6/13/2017	TSTM Wind	50 kts.	0	0	\$8,000	\$0
County	6/16/2017	TSTM Wind	65 kts.	0	0	\$204,000	\$0
Countywide	6/22/2017	Strong Wind	35 kts.	0	0	\$13,000	\$0
County	6/30/2017	TSTM Wind	43 kts.	0	0	\$29,000	\$0
Walters	8/9/2017	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Countywide	10/7/2017	Strong Wind	35 kts.	0	0	\$5,000	\$0

<i>Moselle</i>	4/14/2018	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>Service</i>	5/17/2018	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Lanham</i>	5/20/2018	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Moselle & Lanham</i>	6/9/2018	TSTM Wind	50 kts.	0	0	\$11,000	\$0
<i>Eastabuchie</i>	7/19/2018	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>County</i>	7/31/2018	TSTM Wind	50 kts.	0	0	\$21,000	\$0
<i>Hoy</i>	8/7/2018	TSTM Wind	39 kts.	0	0	\$2,000	\$0
<i>Tawanta</i>	11/1/2018	TSTM Wind	56 kts.	0	0	\$20,000	\$0
<i>Hoy</i>	12/27/2018	TSTM Wind	48 kts.	0	1	\$200,000	\$0
<i>County</i>	1/19/2019	TSTM Wind	60 kts.	0	0	\$36,000	\$0
<i>PIB</i>	1/23/2019	TSTM Wind	55 kts.	0	0	\$20,000	\$0
<i>Tuckers</i>	3/3/2019	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Countywide</i>	3/10/2019	Strong Wind	39 kts.	0	0	\$8,000	\$0
<i>Moselle</i>	4/18/2019	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Gitano & Errata</i>	5/11/2019	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>PIB</i>	6/7/2019	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Hoy</i>	6/25/2019	TSTM Wind	43 kts.	0	1	\$50,000	\$0
<i>Moselle & PIB</i>	7/14/2019	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Moselle</i>	9/9/2019	TSTM Wind	55 kts.	0	1	\$15,000	\$0
<i>Countywide</i>	10/26/2019	Strong Wind	50 kts.	0	0	\$50,000	\$0
<i>Reddoch</i>	4/22/2020	TSTM Wind	87 kts.	0	0	\$50,000	\$0
<i>Hoy</i>	4/23/2020	TSTM Wind	50kts.	0	0	\$15,000	\$0
<i>Myrick</i>	8/2/2020	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Hoy</i>	3/31/2021	TSTM Wind	52 kts.	0	0	\$7,000	\$0
<i>Ovett</i>	5/4/2021	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Mill Creek</i>	6/13/2021	TSTM Wind	53 kts.	0	0	\$30,000	\$0
<i>Myrick</i>	7/13/2021	TSTM Wind	48 kts.	0	0	\$20,000	\$0
<i>Walters</i>	1/9/2022	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Hoy & Moselle</i>	3/18/2022	TSTM Wind	50 kts.	0	0	\$1,500	\$0
<i>Walters</i>	4/5/2022	TSTM Wind	55 kts.	0	0	\$2,000	\$0
<i>Hoy & Errata</i>	4/17/2022	TSTM Wind	78 kts.	0	0	\$30,000	\$0
<i>Moselle</i>	5/21/2022	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Tawamta & PIB</i>	5/25/2022	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Service</i>	6/10/2022	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>Tuckers</i>	7/21/2022	TSTM Wind	40 kts.	0	0	\$1,000	\$0
<i>Mill Creek</i>	11/29/2022	TSTM Wind	55 kts.	0	0	\$1,000	\$0
<i>PIB</i>	1/3/2023	TSTM Wind	52 kts.	0	0	\$15,000	\$0
<i>Tuckers</i>	5/11/2023	TSTM Wind	52 kts.	0	0	\$1,000	\$0
<i>Gitano</i>	6/10/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Moselle</i>	6/14/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>County</i>	6/16/2023	TSTM Wind	65 kts.	0	0	\$254,000	\$0
<i>Tuckers</i>	6/17/2023	TSTM Wind	55 kts.	0	0	\$17,000	\$0
<i>Union Line</i>	6/25/2023	TSTM Wind	65 kts.	0	2	\$150,000	\$0
<i>Moselle</i>	7/5/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Ovett</i>	7/12/2023	TSTM Wind	53 kts.	0	0	\$3,000	\$0
<i>Tuckers</i>	7/22/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>County</i>	7/30/2023	TSTM Wind	50 kts.	0	0	\$22,000	\$0

Moselle	1/9/2024	TSTM Wind	50 kts.	0	0	\$0	\$5,000
County	4/3/2024	Strong Wind	43 kts.	0	0	\$50,000	\$0
Hoy	4/10/2024	TSTM Wind	55 kts.	0	0	\$5,000	\$0
Hesler FLD	7/17/2024	TSTM Wind	42 kts.	0	0	\$500	\$0
Service	8/28/2024	TSTM Wind	45 kts.	0	0	\$1,000	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 112 recorded hailstorm events have affected Jones County since 2000. **Table E.18** is a summary of the hail events in Jones County. **Table E.19** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$3.5 million in property damages. Hail ranged in diameter from 0.75 inches to 2.75 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value.

Lightning

According to the National Centers for Environmental Information, there have been 21 recorded lightning events in Jones County since 2008. These events resulted in almost \$1M in damages as listed in summary **Table E.18**. However, it is likely that more lightning events have in fact impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported. Detailed information on historical lightning events can be found in **Table E.19**.

TABLE E.18: SUMMARY OF HAIL AND LIGHTNING OCCURRENCES IN JONES DAVIS COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
Ellisville	13	0	1	\$217,000	\$0
Laurel	32	0	0	\$265,500	\$0
Sandersville	15	0	0	\$27,000	\$0
Soso	7	0	0	\$950,000	\$0
Unincorporated Area	66	0	1	\$2,958,500	\$3,000
County Total:	133	0	2	\$4,417,000	\$3,000

Source: NCED/NOAA

Fog

According to the Natural Centers for Environmental Information, there has been 1 dense fog incident in Jones County. The event resulted in approximately \$750,000 in damages and 21 injuries, due to a 20-vehicle crash that was caused by the fog. It is possible that more fog related incidents could occur as the climate continues to change. According to NCDC/NOAA:

February 21, 2024—Dense fog and smoke combined to reduce visibility to near-zero in parts of the area on the morning of February 21st. A 20-vehicle crash occurred near the intersection of US Highway 84 and Ben Pitts Road, including multiple 18-wheeler trucks and a loaded log truck which spilled its contents across the roadway. The crash resulted in 21 injuries and a road closure which lasted for several hours.

TABLE E.19: HISTORICAL HAIL AND LIGHTNING OCCURRENCES IN JONES COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Ellisville							
Ellisville	11/29/2001	Hail	1.75 in.	0	0	\$20,000	\$0

Ellisville	3/12/2003	Hail	1 in.	0	0	\$1,000	\$0
Ellisville	3/13/2003	Hail	0.75 in.	0	0	\$1,000	\$0
Ellisville	4/22/2005	Hail	1.75 in.	0	0	\$100,000	\$0
Ellisville	2/3/2006	Hail	1 in.	0	0	\$0	\$0
Ellisville	7/28/2006	Hail	0.75 in.	0	0	\$0	\$0
Ellisville	3/21/2012	Lightning	--	0	0	\$50,000	\$0
Ellisville	7/31/2012	Lightning	--	0	1	\$0	\$0
Ellisville	8/9/2012	Lightning	--	0	0	\$25,000	\$0
Ellisville	2/10/2013	Hail	0.88 in.	0	0	\$0	\$0
Ellisville	3/23/2013	Hail	1 in.	0	0	\$0	\$0
Ellisville	3/3/2016	Hail	0.75 in.	0	0	\$0	\$0
Ellisville	8/2/2020	Hail	2 in.	0	0	\$20,000	\$0
City of Laurel							
Laurel	4/1/2000	Hail	1.75 in.	0	0	\$25,000	\$0
Laurel	7/17/2000	Hail	0.75 in.	0	0	\$0	\$0
Laurel	8/10/2000	Hail	0.75 in.	0	0	\$0	\$0
Laurel	8/31/2000	Hail	0.88 in.	0	0	\$0	\$0
Laurel	7/7/2002	Hail	0.75 in.	0	0	\$0	\$0
Laurel	7/15/2002	Hail	1 in.	0	0	\$500	\$0
Laurel	11/15/2002	Hail	0.75 in.	0	0	\$0	\$0
Laurel	4/6/2003	Hail	1.75 in.	0	0	\$5,000	\$0
Laurel	4/6/2003	Hail	1 in.	0	0	\$1,000	\$0
Laurel	5/14/2003	Hail	0.75 in.	0	0	\$1,000	\$0
Laurel	3/22/2005	Hail	0.75 in.	0	0	\$0	\$0
Laurel	4/22/2005	Hail	1 in.	0	0	\$0	\$0
Laurel	4/26/2005	Hail	0.75 in.	0	0	\$0	\$0
Laurel	5/9/2006	Hail	0.88 in.	0	0	\$0	\$0
Laurel	6/23/2006	Hail	0.75 in.	0	0	\$0	\$0
Laurel	4/14/2007	Hail	0.88 in.	0	0	\$0	\$0
Laurel	8/7/2008	Hail	0.88 in.	0	0	\$0	\$0
Laurel	12/10/2008	Hail	1 in.	0	0	\$0	\$0
Laurel	5/10/2009	Hail	0.88 in.	0	0	\$0	\$0
Laurel	3/12/2010	Hail	1 in.	0	0	\$0	\$0
Laurel	7/4/2011	Hail	1 in.	0	0	\$5,000	\$0
Laurel	4/3/2012	Lightning	--	0	0	\$75,000	\$0
Laurel	7/13/2012	Lightning	--	0	0	\$5,000	\$0
Laurel	8/6/2012	Lightning	--	0	0	\$10,000	\$0
Laurel	8/9/2012	Lightning	--	0	0	\$15,000	\$0
Laurel	2/20/2014	Lightning	--	0	0	\$20,000	\$0
Laurel	6/30/2015	Hail	0.88 in.	0	0	\$0	\$0
Laurel	5/16/2018	Hail	1 in.	0	0	\$0	\$0
Laurel	12/16/2019	Hail	1.25 in.	0	0	\$3,000	\$0
Laurel	1/3/2023	Hail	1 in.	0	0	\$0	\$0
Laurel	4/3/2023	Hail	1 in.	0	0	\$100,000	\$0
Laurel	6/19/2023	Hail	0.88 in.	0	0	\$0	\$0

Town of Sandersville

Sandersville	3/14/2003	Hail	0.75 in.	0	0	\$1,000	\$0
Sandersville	4/25/2003	Hail	0.75 in.	0	0	\$1,000	\$0
Sandersville	7/15/2004	Hail	1 in.	0	0	\$0	\$0
Sandersville	3/30/2005	Hail	0.88 in.	0	0	\$0	\$0
Sandersville	4/26/2005	Hail	1 in.	0	0	\$0	\$0
Sandersville	4/11/2008	Hail	0.75 in.	0	0	\$0	\$0
Sandersville	6/1/2008	Hail	1 in.	0	0	\$0	\$0
Sandersville	5/20/2010	Hail	1.25 in.	0	0	\$0	\$0
Sandersville	8/3/2010	Hail	1 in.	0	0	\$0	\$0
Sandersville	6/13/2011	Hail	1 in.	0	0	\$25,000	\$0
Sandersville	3/31/2016	Hail	1 in.	0	0	\$0	\$0
Sandersville	4/14/2016	Hail	1 in.	0	0	\$0	\$0
Sandersville	5/24/2020	Hail	1 in.	0	0	\$0	\$0
Sandersville	3/31/2021	Hail	1 in.	0	0	\$0	\$0
Sandersville	6/26/2024	Hail	1 in.	0	0	\$0	\$0

Town of Soso

Soso	4/6/2005	Hail	1 in.	0	0	\$0	\$0
Soso	4/22/2005	Hail	0.75 in.	0	0	\$0	\$0
Soso	4/22/2005	Hail	2.75 in.	0	0	\$800,000	\$0
Soso	2/3/2006	Hail	1 in.	0	0	\$0	\$0
Soso	5/9/2006	Hail	1 in.	0	0	\$0	\$0
Soso	4/28/2014	Hail	1 in.	0	0	\$0	\$0
Soso	3/26/2023	Hail	1 in.	0	0	\$150,000	\$0

Unincorporated Area in Jones County

Hebron	1/9/2000	Hail	0.88 in.	0	0	\$0	\$0
Ovett	3/3/2000	Hail	1 in.	0	0	\$0	\$0
Ovett	3/1/2001	Hail	0.88 in.	0	0	\$0	\$0
Moselle	3/12/2002	Hail	0.75 in.	0	0	\$0	\$0
Eastabuchie	3/6/2003	Hail	0.88 in.	0	0	\$1,000	\$0
Moselle	4/25/2003	Hail	1 in.	0	0	\$1,000	\$0
Oak Boweryy	3/26/2005	Hail	1.75 in.	0	0	\$20,000	\$0
Ovett	3/30/2005	Hail	1.75 in.	0	0	\$10,000	\$0
Moselle	3/31/2005	Hail	1 in.	0	0	\$15,000	\$0
Ovett	3/31/2005	Hail	1.75 in.	0	0	\$0	\$0
Moselle	4/22/2005	Hail	0.75 in.	0	0	\$0	\$0
Hebron	3/20/2006	Hail	1 in.	0	0	\$0	\$0
Moselle	5/8/2006	Hail	1.50 in.	0	0	\$50,000	\$0
Ovett	4/14/2007	Hail	1 in.	0	0	\$0	\$0
Moselle	1/10/2008	Hail	1.75 in.	0	0	\$70,000	\$0
Ovett	1/10/2008	Hail	0.75 in.	0	0	\$0	\$0
Tuckers Crossing	2/12/2008	Hail	0.75 in.	0	0	\$0	\$0
Moselle	3/3/2008	Hail	1 in.	0	0	\$0	\$0
Ovett	3/3/2008	Lightning	--	0	0	\$10,000	\$0

Blodgett	4/4/2008	Hail	1 in.	0	0	\$0	\$0
Reddoch	12/10/2008	Hail	1.75 in.	0	0	\$0	\$0
Service	3/27/2009	Hail	1 in.	0	0	\$0	\$0
Ovett	3/27/2009	Hail	0.88 in.	0	0	\$0	\$0
Eastabuchie	5/5/2009	Hail	0.88 in.	0	0	\$0	\$0
Tuckers	12/9/2009	Hail	1.25 in.	0	0	\$0	\$0
Oak Bowery	3/12/2010	Hail	1 in.	0	1	\$0	\$0
Oak Bowery	3/12/2010	Hail	1.75 in.	0	0	\$4,000	\$0
Tawanta	5/20/2010	Hail	1 in.	0	0	\$0	\$0
PIB	5/20/2010	Lightning	--	0	0	\$100,000	\$0
Reddoch	5/20/2010	Lightning	--	0	0	\$80,000	\$0
Lanham	6/1/2010	Hail	1.25 in.	0	0	\$0	\$0
Ovett	4/15/2011	Hail	1 in.	0	0	\$0	\$0
Tawamta	5/13/2011	Hail	1.75 in.	0	0	\$50,000	\$0
Servoce	3/21/2012	Hail	1 in.	0	0	\$0	\$0
Hoy	4/5/2012	Hail	1 in.	0	0	\$0	\$0
Hoy	7/31/2012	Hail	1 in.	0	0	\$0	\$0
Hoy	7/31/2012	Hail	1.75 in.	0	0	\$10,000	\$0
Lanham	9/4/2012	Hail	1 in.	0	0	\$0	\$0
Gitano	3/18/2013	Hail	1.75 in.	0	0	\$500,000	\$0
Service	8/12/2013	Lightning	--	0	0	\$5,000	\$0
Gitano	12/23/2014	Hail	1 in.	0	0	\$0	\$0
Myrick	3/26/2015	Hail	0.75 in.	0	0	\$0	\$0
Errata	8/21/2015	Lightning	--	0	0	\$50,000	\$0
Tawanta	3/17/2016	Hail	1.75 in.	0	0	\$6,000	\$0
PIB	4/14/2016	Hail	1 in.	0	0	\$0	\$0
Tuckers	8/4/2016	Hail	0.75 in.	0	0	\$0	\$0
Ovett	9/25/2016	Hail	0.75 in.	0	0	\$0	\$0
Lanham	4/14/2018	Lightning	--	0	0	\$5,000	\$0
Moselle	6/9/2018	Hail	0.75 in.	0	0	\$1,000	\$0
Moselle	6/9/2018	Lightning	--	0	0	\$50,000	\$1,000
Servoce	6/30/2018	Hail	0.88 in.	0	0	\$500	\$2,000
Oak Bowery	7/31/2018	Lightning	--	0	0	\$300,000	\$0
Hoy	8/10/2018	Lightning	--	0	1	\$0	\$0
Tawanta	12/27/2018	Lightning	--	0	0	\$30,000	\$0
Hoy	4/7/2019	Lightning	--	0	0	\$50,000	\$0
Service	3/4/2020	Hail	2.50 in.	0	0	\$500,000	\$0
Moselle	4/17/2022	Hail	1 in.	0	0	\$10,000	\$0
Myrick	8/16/2022	Hail	1.25 in.	0	0	\$100,000	\$0
Service and Hoy	1/3/2023	Hail	1 in.	0	0	\$0	\$0
Hoy	4/3/2023	Hail	1.25 in.	0	0	\$200,000	\$0
Hoy	6/16/2023	Lightning	--	0	0	\$5,000	\$0
Ovett and Mill Creek	6/18/2023	Hail	1 in.	0	0	\$100,000	\$0
Twanta	6/19/2023	Hail	1.5 in.	0	0	\$200,000	\$0
Walters	12/10/2023	Hail	1 in.	0	0	\$250,000	\$0
Errata	2/12/2024	Hail	1 in.	0	0	\$150,000	\$0
Service	5/10/2024	Lightning	--	0	0	\$25,000	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Jones County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there was not a high number of historical lightning events reported in Jones County via NCEI data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala’s U.S. National Lightning Detection Network (NLDN®), Jones County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer. Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Fog

Though there are not a high number of historical events in Jones County that include dense fog, it is possible that fog events could worsen as the climate continues to change which could increase events due to low visibility (1-100 percent of annual probability). Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county with more crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

E.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Jones County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that Jones County is uniformly exposed to this hazard.

HISTORICAL OCCURRENCES

Tornadoes resulted in six disaster declarations in Jones County in 1971, 1973, 1987, 1990, 2001, and 2014. According to the National Centers for Environmental Information, there have been a total of 46 recorded tornado events in Jones County since 2000 (Table E.20), resulting in over \$40 million in property damages. In addition, 6 fatalities and 119 injuries were reported. The magnitude of these tornadoes ranges from F0 to EF4 in intensity, although an F5 event is possible. Detailed information on historic tornado events can be found in Table E.21.

TABLE E.20: SUMMARY OF TORNADO OCCURRENCES IN JONES COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
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<i>Ellisville</i>	4	0	0	\$16,000	\$0
<i>Laurel</i>	5	0	2	\$4,275,000	\$0
<i>Sandersville</i>	1	0	0	\$5,000	\$0
<i>Soso</i>	2	0	0	\$175,000	\$0
<i>Unincorporated Area</i>	34	6	117	\$31,490,000	\$4,450,000
Jones County Total:	46	6	119	\$35,961,000	\$4,450,000

Source: NCED/NOAA

TABLE E.21: HISTORICAL TORNADO IMPACTS IN JONES COUNTY

Location	Date	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Ellisville						
<i>Ellisville</i>	2/16/2001	F0	0	0	\$1,000	\$0
<i>Ellisville</i>	1/13/2001	F0	0	0	\$0	\$0
<i>Ellisville</i>	11/27/2003	F1	0	0	\$5,000	\$0
<i>Ellisville</i>	2/20/2014	EF0	0	0	\$10,000	\$0
City of Laurel						
<i>Laurel</i>	6/13/2001	F0	0	0	\$0	\$0
<i>Laurel</i>	10/13/2001	F0	0	0	\$25,000	\$0
<i>Laurel</i>	3/15/2002	F1	0	0	\$3,250,000	\$0
<i>Laurel</i>	11/15/2006	F1	0	0	\$0	\$0
<i>Laurel</i>	12/16/2019	EF3	0	2	\$1,000,000	\$0
Town of Sandersville						
<i>Sandersville</i>	9/2/2008	EF0	0	0	\$5,000	\$0
Town of Soso						
<i>Soso</i>	3/20/2006	F1	0	0	\$100,000	\$0
<i>Soso</i>	1/5/2007	F1	0	0	\$75,000	\$0
Unincorporated Area in Jones County						
<i>Moselle</i>	5/17/2003	F1	0	0	\$30,000	\$0
<i>Moselle</i>	3/22/2005	F1	0	0	\$800,000	\$0
<i>Hebron</i>	3/20/2006	F0	0	0	\$20,000	\$0
<i>Tuckers Crossing</i>	11/15/2006	F3	0	1	\$1,700,000	\$0
<i>Oak Bowery</i>	4/14/2007	EF0	0	0	\$0	\$0
<i>Service</i>	12/20/2007	EF2	0	2	\$450,000	\$0
<i>Hebron</i>	9/2/2008	EF0	0	0	\$80,000	\$0
<i>Walters</i>	12/10/2008	EF1	0	0	\$250,000	\$0
<i>Reddoch</i>	3/26/2009	EF2	0	0	\$800,000	\$150,000
<i>PIB</i>	5/20/2010	EF0	0	0	\$40,000	\$0
<i>Truckers Crossing</i>	11/20/2010	EF0	0	0	\$70,000	\$0
<i>Service</i>	4/26/2011	EF1	0	0	\$180,000	\$0

Hebron	11/16/2011	EF1	0	0	\$50,000	\$0
Service	11/16/2011	EF2	0	15	\$400,000	\$0
Reddoch	3/21/2012	EF0	0	0	\$25,000	\$0
Myrick	12/9/2012	EF0	0	0	\$1,000	\$0
Ovett	12/25/2012	EF1	0	0	\$50,000	\$0
PIB	2/20/2014	EF1	0	0	\$400,000	\$0
Gitano	4/7/2014	EF0	0	0	\$10,000,000	\$0
Errata	4/28/2014	EF3	0	15	1,500,000	\$300,000
Mill Creek	11/16/2014	EF1	0	0	\$45,000	\$0
Service	12/23/2014	EF2	2	0	\$2,200,000	\$0
Lanham	7/22/2016	EF0	0	0	\$45,000	\$0
Gitano	1/22/2018	EF0	0	0	\$15,000	\$0
Hebron	4/12/2020	EF4	4	80	\$11,800,000	\$3,000,000
Gitano	4/12/2020	EF1	0	0	\$20,000	\$1,000,000
Service	4/23/2020	EF2	0	0	\$300,000	\$0
Hebron	4/5/2022	EF0	0	0	\$1,000	\$0
Lanham	4/5/2022	EF1	0	0	\$50,000	\$0
Oak Bowery	4/13/2022	EF1	0	0	\$75,000	\$0
Hoy	4/17/2022	EF1	0	0	\$3,000	\$0
Ovett	12/14/2022	EF1	0	0	\$20,000	\$0
Errata	1/3/2023	EF1	0	0	\$50,000	\$0

Source: NCED/NOAA

Anecdotes are available from NCEI for the tornadoes that have impacted that area as found below:

On February 28, 1987—A 1.25 mile-wide F4 tornado in Glade (unincorporated Jones County) was recorded as the second widest tornado on record in Mississippi. This tornado resulted in 6 deaths, 250 injuries, and \$55,563,194 in damages.

March 15, 2002—A tornado formed about three miles northwest of Laurel or between the cities of Laurel and Soso in northwest Jones County. The tornado moved northeast 1 mile, before dissipating two miles northwest of Laurel. West Jones County High School and Middle School sustained significant, structural damage. Most of the roof had collapsed, along with other structural damage which made the facility inhabitable. Damage costs to the school alone exceeded 2.5 million dollars, per one county official. One home and one mobile home were also destroyed. Otherwise, ten to twelve homes sustained major damage along with several trees that were uprooted by the tornado.

November 15, 2006—This strong tornado touched down near the Glade and Tuckers Crossing Communities and tracked east northeast to near the Mill Creek Community before entering Wayne County near Highway 84. Around 25 homes suffered significant damage. The most intense damage was along a path from near the intersection of Highway 15 and Orange Drive northeast to the area along Township Road. Two metal high tension electric power truss towers were destroyed, hundreds of trees were snapped and uprooted, at least two mobile homes were destroyed, a travel trailer being used for post-Katrina housing was annihilated, and several houses suffered significant structural damage.

Northeast of this area, the path continued all the way to the county line with Wayne County, but damage was generally less, F 0 to occasionally F1, and limited to tree damage. The one exception was near the Mill Creek community, where a storage building was destroyed, and a couple of homes suffered roof damage. The total path length across Jones and Wayne Counties was 17 miles.

March 26, 2009—This tornado touched down along Mason Creek Rd about 6 miles west of Soso. Several trees were snapped and uprooted and some minor roof damage occurred to a few homes. The tornado intensified as it crossed Summerland Road. Here the tornado widened to 500 yds and reached peak intensity, especially within a narrow corridor which lasted about 3/4 of a mile. One well-constructed home suffered major damage with half of the roof torn off and other wall sections of that side the

house ripped out and thrown into the back yard. Two well-built storage buildings were destroyed with the contents thrown into a field. Additionally, a weekly built barn was destroyed with tin thrown along the path. Numerous trees were snapped and uprooted in this area with splintered trees within the most intense core. One large tree in this location was uprooted and actually thrown and rolled a small distance. The tornado continued to track just east of north across several more roads, including Highway 28 and 503, uprooting and snapping numerous trees. On the east side of Highway 28, a mobile home was pushed off its foundation and the person inside was injured. The tornado continued to weaken as it crossed Highway 503 and damaged more trees and caused minor damage to several mobile homes and heavily damaged a couple sheds. The maximum winds were around 125 mph.

April 7, 2014—This tornado touched down just to the west of Sunset-Williamsburg Rd. Several trees were snapped at this location. The tornado moved northeast where it crossed Sunset Rd and Rock Hill Rd. Snapped & uprooted trees were the main damage. As the tornado neared and crossed Highway 49, the intensity increased to a high-end EF-1.

Multiple power lines were downed along with numerous trees, two homes had minor damage along Rock Hill Rd. A home had a portion of the roof removed along Highway 49. As the tornado crossed Byrd Town Rd, more high-end tree damage occurred with some minor damage to a home and a couple mobile homes. Several sheds and carports were destroyed here as well. The tornado increased in intensity to a low-end EF-2 as it crossed George Speed Rd. Here significant tree damage was noted with hundreds of snapped or uprooted pines and hardwoods. A few homes had minor damage as they were on the edges of the tornadic circulation. The tornado weakened some as it moved just north of Jones Chapel Rd and across Highway 532. The tornado increased and reached peak intensity, EF-2 (125 mph), as it crossed Vester Pickering Rd. Three mobile homes were destroyed with one well-built brick home having the roof entirely removed. Heavy tree damage was noted here with power poles and power lines down. Just to the north of Hot Coffee, a large church was heavily damaged with part of the roof removed and some outer brick fallen off the outer wall. Five other brick buildings had minor/major roof damage along with the windows blown out. Dozens of trees were snapped and uprooted here and along Highway 35.

The tornado continued to the northeast toward the Leaf River where more trees were snapped and downed. The tornado dissipated just inside Jones County where some trees were damaged. The total path length was 16.5 miles. The maximum winds were around 125 mph.

April 28, 2014—This tornado developed just to the west of Interstate 59 southwest of Sandersville. The tornado crossed the interstate into areas along Dogwood Trail and Magnolia Roads, snapping hundreds of trees and heavily damaging houses and mobile homes. The tornado then turned more to the east, continuing to cause heavy tree damage and destroying a mobile home. As the tornado moved near the intersection of Pleasant Grove and Davenport Road, it reached its maximum intensity in Jones County. It destroyed a wood frame home, leaving only some interior walls standing, and destroyed hundreds of trees, including leaving some denuded and partially debarked. After this point, the tornado weakened somewhat, crossed Dallas-Brownlee Road, and then moved into Wayne County. The total path length was almost 11 miles. Maximum winds were around 145 mph.

December 23, 2014—This tornado started along Maxey Rd and tracked northeast for a little over 5 miles. Initially the damage was light with only a tree, or two snapped and large limbs broken. As the tornado crossed State Highway 28, its width and intensity increased. Here, several large pine trees were uprooted and snapped along with a few portions of wooden fence torn down. Along Gardner Rd, more trees were damaged along with some minor roof damage to some homes. A large barn had most of the roof removed with the tin scattered along the path. Similar tree damage occurred as the tornado crossed Hines Rd, Tim Holifield Rd and Service Rd. The tornado reached peak intensity as it crossed Mullican Rd. Here three homes sustained moderate roof damage with dozens of trees snapped/uprooted. A mobile home at this location was destroyed and unrecognizable with the undercarriage thrown a considerable distance. Two fatalities occurred in the mobile home. Next to the mobile home was a small wood frame home on a slab. This structure was removed off the foundation. A large wooden storage shed was totally destroyed at this location. Peak winds here were at 125 mph. From this point, the tornado narrowed and weakened as it moved northeast and tracked across Bush Dairy Rd and then State Highway 15 where it eventually lifted.

December 16, 2019—This tornado touched down over the Hesler-Noble Airfield and quickly moved northeast across Hillcrest Drive and into downtown Laurel. Through town, the tornado produced a continuous path of snapped and uprooted trees, broken tree limbs, and minor structural damage to homes and businesses. As it crossed North 16th Avenue, it produced more

significant damage to several businesses and a hotel, including briefly lifting the roof of the Super 8, collapsing portions of a small strip mall and standalone office building, and causing damage to the exterior and roofing of the Piggly Wiggly. A semi-truck and flatbed trailer carrying automobiles were also overturned in this area. The tornado continued to damage or blow down trees as it passed through the neighborhoods and the warehouse district of downtown, with several trees falling onto and damaging homes and cars. The Nora Davis Magnet School sustained heavy roof damage and a nearby home lost its entire roof and carport as the tornado crossed Interstate 59 and moved east of Laurel. It was in this area that the most intense damage occurred and was rated at EF3. A few electrical transmission trusses were collapsed, and the Wade Services manufacturing plant took a direct hit and experienced a total collapse of its structures. The tornado remained east of US Highway 11 as it crossed through Erata and Sandersville, causing a continuous path and uprooted trees. It briefly passed through the far northwestern corner of Wayne County northwest of Eucutta and then crossed into southern Clarke County near County Road 230. Damage to many trees and a few homes occurred as it continued northeast across US Highway 45 and into Alabama where MS Highway 18 meets the state line near Hinton, Alabama. Two mobile homes in southern Clarke County were rolled and severely damaged, and two single family homes in the county experienced severe roof damage. Residents in both mobile homes received advance warning of the tornado and were able to shelter in another location before it hit. The tornado continued into Alabama before it dissipated. Two very minor injuries occurred in Sandersville during the tornado from debris. A third injury occurred three days later on the 19th when a man was cleaning up after the tornado. A cracked tree fell on him and broke his jaw. Maximum winds were 140 mph. Total path length was 51.48 miles in Mississippi but 61.34 miles total.

April 12, 2020—This violent, deadly tornado traveled 68 miles through parts of five counties including southeastern Jefferson Davis, central Covington, northwestern Jones, southeastern Jasper, and western Clarke counties. Locations impacted by this tornado include Bassfield, the areas between Collins and Seminary, Soso, Moss, Heidelberg, and Pachuta. This tornado is preliminarily rated EF4 with an estimated peak wind of 190 MPH east of Bassfield in southwestern Jefferson Davis County. Additional EF4 damage was noted near Soso in Jones County and at Moss in Jasper County. The maximum path width was 2.25 miles in the vicinity of Hughes Road west of Seminary in western Covington County. At this width, the tornado ranks 3rd widest in the official NOAA United States tornado database behind the El Reno, OK tornado of 2013 (2.6 mi) and the Hallam, NE tornado of 2004 (2.5 mi). This tornado now ranks as the widest on record in the state of Mississippi, surpassing the Yazoo City, MS tornado of 2010 (1.75 mi). Eight lives were lost in this tornado, and there was an undetermined number of additional injuries. Additional details on the damage path and area of most significant damage follow.

The tornado began south of Bassfield along Bassfield Cemetery Road, uprooting trees and resulting in relatively minor structural damage. As it proceeded northeastward, the diameter of the wind field steadily increased and the percentage of snapped trees in the center of the vortex increased considerably as the tornado approached MS Highway 42. At this location, two homes sustained major roof damage. Tornado intensity then began to increase quickly, with EF3 damage as it crossed Hosey Mikell Road, completely demolishing a mobile home and scattering the debris field over 300 yards downwind. Tree damage also ramped up significantly beyond this location, with low end EF4 damage in a narrow swath of nearly complete tree destruction along the center of the tornado vortex and increasing instances of debarking of trees as the tornado moved across Pitts Lane and Reese Road.

Outside of this most intense corridor of tornadic winds, EF1 and EF2 damage to trees and structures was occurring over a wide area, up one mile wide. In addition, both ground surveys and aerial photography indicated the presence of multiple vortices at times. Intense damage continued as the tornado crossed the intersection of Graves Key Road and Harper Road, where a cinder block small business building was destroyed, with much of the slab swept clean. Four fatalities occurred at this location. Nearby, a mobile home was completely destroyed, with the undercarriage wrapped around the small set of trees that remained standing downwind. Debarking of some trees was again noted and continued along the tornado path across Claude Booth Road. The tornado reached its peak intensity as it moved across a field north of Graves Key Road. At this location, the foundation of a wood frame and metal roof cabin was swept clean. A truck parked at this cabin was tossed approximately 300 yards downwind, and trees that remained standing at this site were partially debarked. Though the path of the intense tornado vortex through the field surrounding this cabin was clearly visible, significant scouring was not noted.

The tornado continued to remain violent and grow in size, nearly 1.5 miles wide, as it crossed Good Hope Road and continued to track toward the Bouie River. Here, a large swath of extreme tree damage was noted as the whole forest was leveled. An intense core of the tornado was evident by debarking of trees along a well-defined center line or sub-vortex feature.

Extreme debarking was noted around Willie Fortenberry Road. In this general area, several farmers reported roughly 60 cattle were killed by the tornado. The tornado grew larger as it entered Covington County and peaked in width in the vicinity of Hughes

Road. Maximum width was measured at 2.25 miles. The incredible expansive tree damage continued along the path with millions of trees damaged. Several dozen structures were damaged or destroyed between McGowen Circle to US 49. Numerous chicken houses (23-30) were destroyed here as well. A section of Cold Springs Road looked to see another sub-vortex and it was here another area of EF4 damage occurred to a home.

As the tornado crossed US 49, the width decreased to 1.7 miles, but it remained quite strong with mid to upper end EF3 damage noted. Extreme tree damage persisted in large swaths along the path. In addition, a few dozen structures were damaged between US 49 and MS Highway 588. This consisted of varying degrees of damage from EF1 to EF3 levels. The tornado entered northwestern Jones County near the Centerville community where several homes had shingles blown off or parts of the decking exposed. A mobile home along Tommy Pickering Road was thrown and separated from the frame, with the highest winds in the EF2 range. As the storm moved northeast across US 84, trees were uprooted and snapped. Several homes on both sides of the highway had decking exposed or shingles blown off. At least one mobile home was destroyed along US 84. The tornado intensified to an EF3 causing significant damage to multiple homes along Danny Hillburn Road, where large sections of roofing was removed. Between US 84 and MS Highway 29, several mobile homes were completely destroyed and at least one separated from the frame. Several homes had one or more exterior walls collapsed or large sections of the roof removed. The tornado continued to cause widespread destruction as it moved into the town of Soso. Several homes and churches received significant damage. Large swaths of trees were snapped and uprooted along MS Highway 29. Near the center of town, a fire station was heavily damaged when the overhead doors collapsed, and portions of the roof were removed. Numerous homes had roofing removed and exposed decking. The worst damage occurred along MS Highway 28 where a convenience store was destroyed, and several other cinder block structures were heavily damaged when the storm intensified to low end EF-4. The tornado continued to mow down large swaths of trees and caused major uplift and loss of roofing to numerous homes as it moved northeast toward MS Highway 15. Along Mathews Road numerous mobile homes and several outbuildings were completely destroyed.

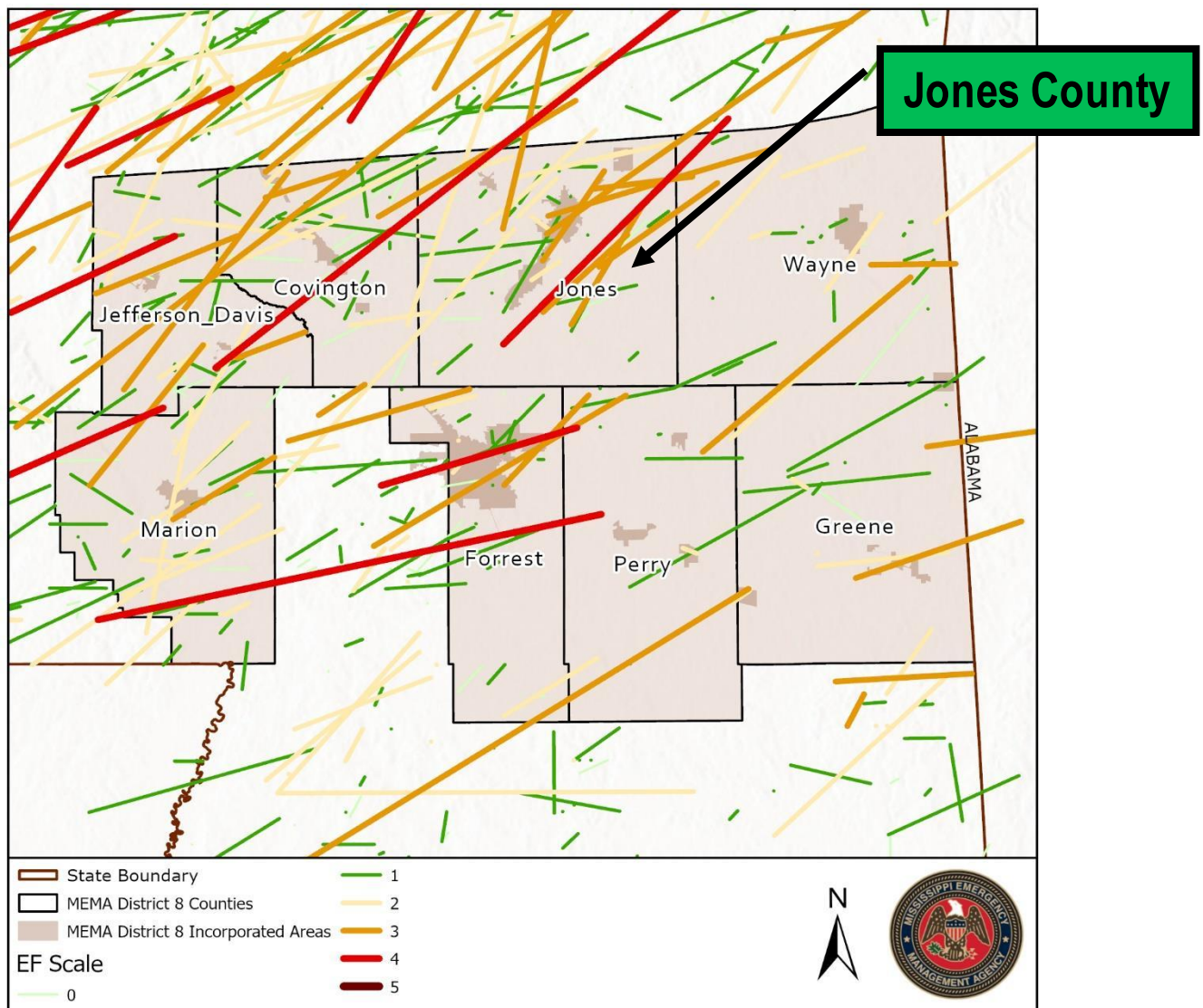
The tornado intensified to a low end EF4 as it moved into the Moss community, where winds near 175 mph resulted in widespread devastation. Nearly every structure in the community was damaged with the most significant damage occurring along or near MS Highway 537. About half of the First Baptist Church of Moss was completely leveled. Numerous homes were destroyed or had major roofing loss or uplifted. A small pick-up truck was thrown several hundred yards and completely destroyed. In addition, multiple mobile homes were completely demolished.

As the storm tracked toward I-59 a few miles west of Heidelberg, hundreds of trees were mowed down, outbuildings were destroyed. Several homes and mobile homes had metal roofing peeled back or decking exposed. Large swaths of trees were snapped for several miles including some along I-59 between the Heidelberg and Vossburg exits.

Swaths of tree damage continued into the Barnett community. In the town of Pachuta there was scattered tree damage, and the metal roofing was peeled off of a church. About two miles north of Pachuta, the damage became sporadic, and the tornado lifted in a wooded area along County Road 130.

The total path length was 67.43 miles. The maximum estimated wind speed of the tornado was 190mph, while the maximum wind speed in Jones County was 167mph.

FIGURE E. 8: TORNADOE PATHS THROUGH JONES COUNTY



PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Jones County. The probability of future tornado occurrences affecting Jones County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises due to climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

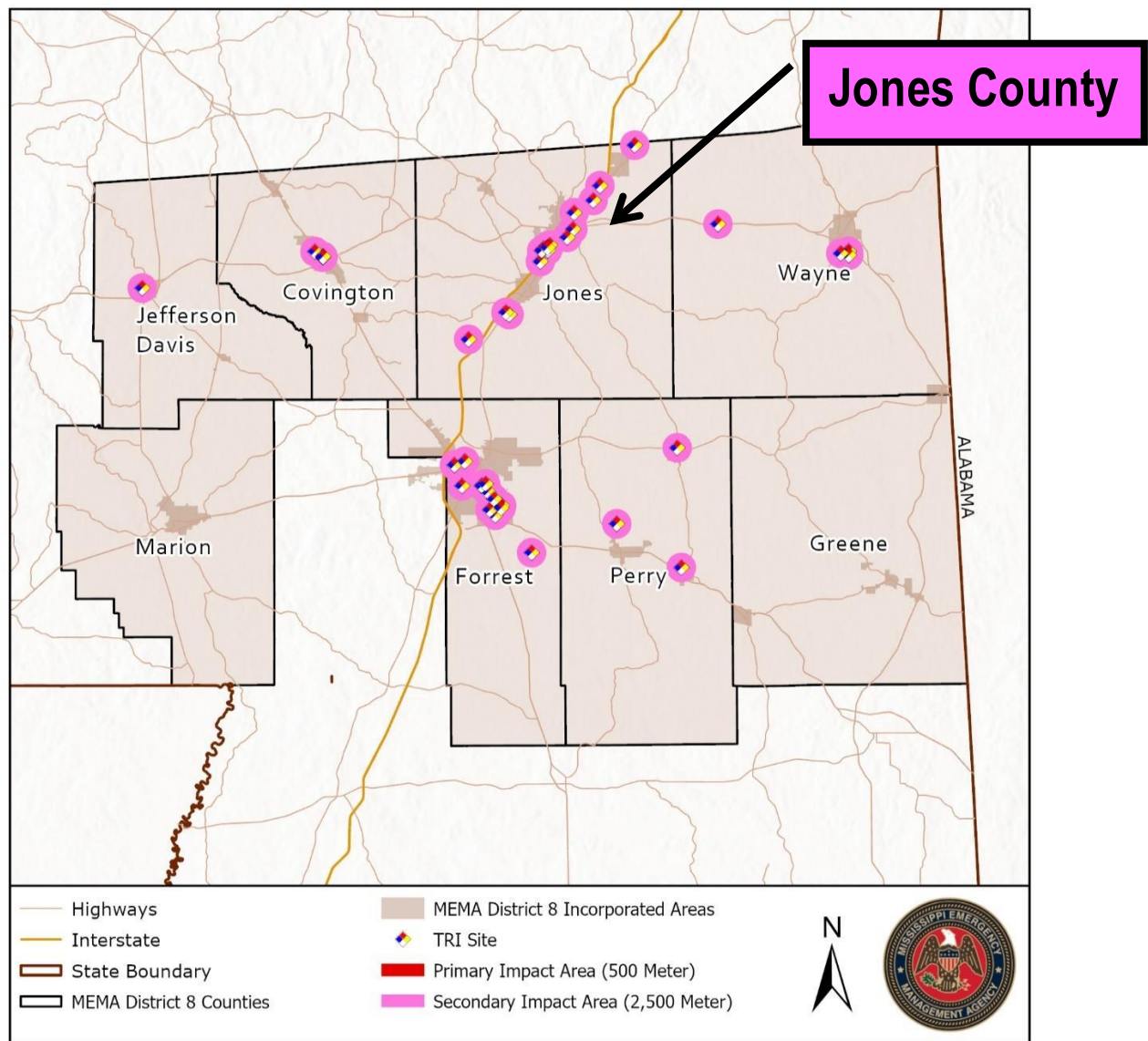
E.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Jones County has twelve TRI sites. These sites are shown in **Figure E.9**.

FIGURE E.9: TOXIC RELEASE INVENTORY (TRI) SITES IN JONES COUNTY

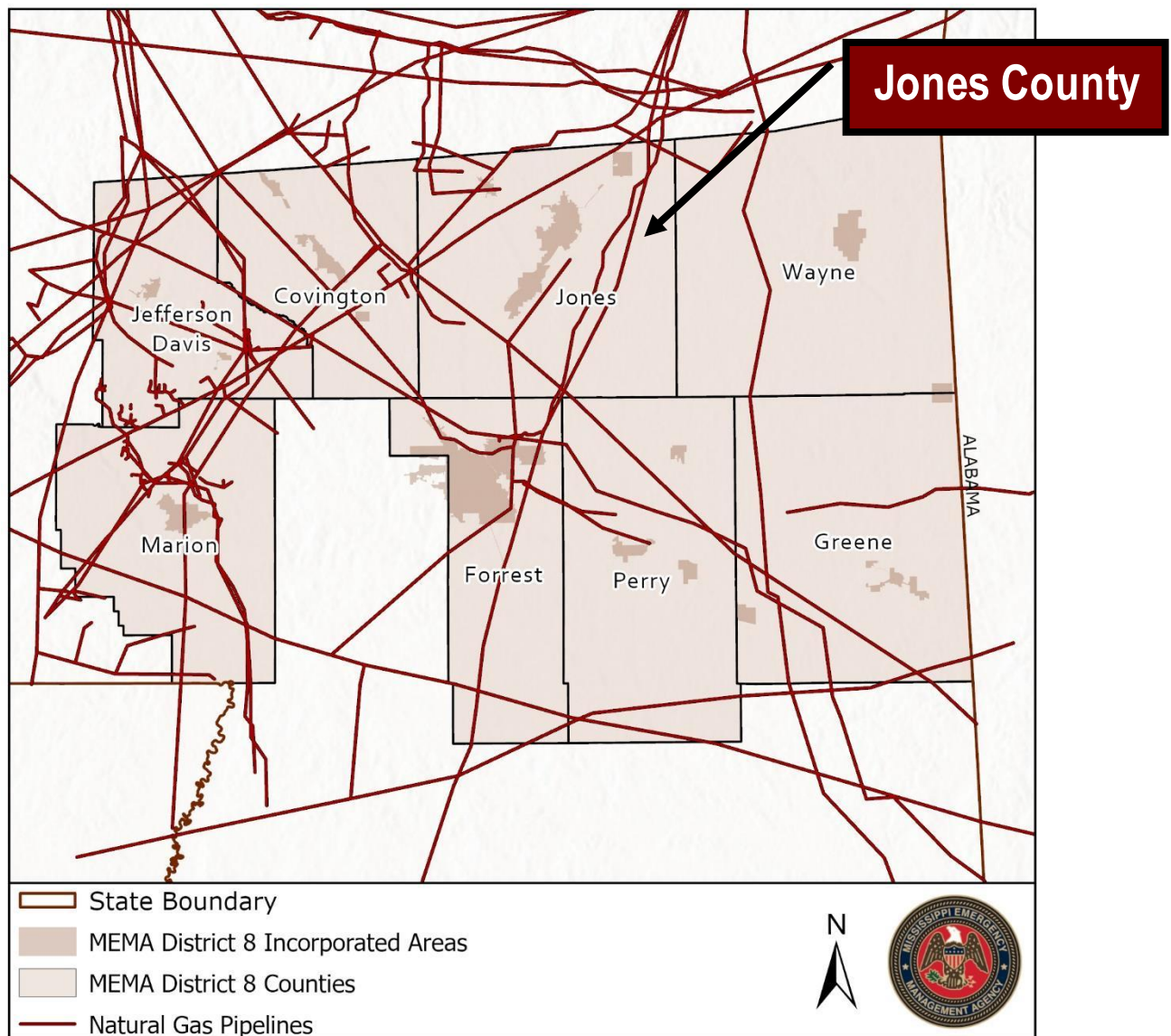


In addition to “fixed” hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

There are two distinct types of pipelines that are used in the transport of potentially hazardous materials, gas lines and hazardous liquid lines. **Figure E.10** shows the trunk lines for each of these material types but does not show the gathering or distribution pipelines. Natural gas pipelines are in red/maroon. This data has not changed since the last plan update.

FIGURE E.10: PIPELINES IN JONES COUNTY



Meth Labs

One of the greatest concerns about meth labs is that they are clandestine in nature. Additionally, once a meth lab has been identified, police authorities generally attempt to eliminate the site as quickly as possible. Therefore, it is nearly impossible to identify specific locations for meth labs and instead, the entire planning area is considered to be at risk to this hazard.

HISTORICAL OCCURRENCES

Hazardous Materials

There has been a total of 54 recorded HAZMAT incidents in Jones County since 1971), resulting in over \$102,000 in property damages. In addition, one death was reported. **Table E.22** presents detailed information on historic HAZMAT incidents in Jones County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

TABLE E.22: HAZMAT INCIDENTS IN JONES COUNTY

Location	Date	Report Number	Mode	Serious Incident	Deaths/Injuries	Damages	Quantity Released
The City of Ellisville							
<i>Ellisville</i>	6/6/1974	I-1974060418	Highway	No	0/0	\$0	0
<i>Ellisville</i>	1/20/1981	I-1981020390	Highway	No	0/0	\$0	55 LGA
<i>Ellisville</i>	3/3/2018	I-2018040085	Highway	Yes	0/0	\$138,000	4,000 SLB
The City of Laurel							
<i>Laurel</i>	7/15/1971	I-1971070159	Highway	No	0/0	\$0	0
<i>Laurel</i>	8/29/1971	I-1971090106	Highway	No	0/0	\$0	0
<i>Laurel</i>	9/15/1971	I-1971090227	Highway	No	0/0	\$0	0
<i>Laurel</i>	9/27/1971	I-1971100060	Highway	No	0/0	\$0	0
<i>Laurel</i>	11/10/1971	I-1971110207	Highway	No	0/0	\$0	0
<i>Laurel</i>	11/20/1971	I-1971120155	Other	No	0/0	\$0	0
<i>Laurel</i>	6/5/1974	I-1974070384	Highway	No	0/0	\$0	0
<i>Laurel</i>	4/14/1975	I-1975050292	Highway	No	0/0	\$0	0
<i>Laurel</i>	8/27/1975	I-1975090380	Highway	No	0/0	\$0	0
<i>Laurel</i>	4/24/1976	I-1976050157	Rail	No	0/0	\$0	1 LGA
<i>Laurel</i>	5/21/1978	I-1978060527	Highway	Yes	0/0	\$0	150 LGA
<i>Laurel</i>	6/12/1979	I-1979070592	Highway	No	0/0	\$0	0
<i>Laurel</i>	12/21/1979	I-1980010323	Highway	No	0/0	\$0	0
<i>Laurel</i>	4/30/1980	I-1980050562	Highway	No	0/0	\$0	650 LGA
<i>Laurel</i>	6/16/1980	I-1980071410	Highway	No	0/0	\$0	0
<i>Laurel</i>	4/29/1981	I-1981060090	Highway	No	0/0	\$0	112 LGA
<i>Laurel</i>	11/3/1981	I-1981110551	Highway	No	0/0	\$0	10 LGA
<i>Laurel</i>	6/5/1984	I-1984060045	Highway	Yes	0/0	\$0	1,305 SLB
<i>Laurel</i>	1/15/1988	I-1988020089	Highway	No	0/0	\$0	0.016 LGA
<i>Laurel</i>	11/10/1988	I-1988120082	Highway	No	0/0	\$0	0.007 LGA
<i>Laurel</i>	4/23/1990	I-1990050072	Highway	No	0/0	\$100	2.5 LGA
<i>Laurel</i>	8/3/1992	I-1992080645	Highway	Yes	0/0	\$88,300	630 LGA
<i>Laurel</i>	8/13/1992	I-1992080915	Highway	No	0/0	\$7	1 LGA
<i>Laurel</i>	11/19/1992	I-1992120046	Highway	No	0/0	\$0	1 LGA
<i>Laurel</i>	11/29/1992	I-1993010032	Highway	No	0/0	\$4,210	0.25 LGA
<i>Laurel</i>	6/23/1993	I-1993070937	Highway	No	0/0	\$0	25 LGA
<i>Laurel</i>	5/13/1994	I-1994060271	Highway	No	0/0	\$0	0.03125LGA
<i>Laurel</i>	7/25/1994	I-1994071528	Highway	No	0/0	\$615	55 LGA
<i>Laurel</i>	11/12/1994	I-1994120079	Highway	No	0/0	\$90	1 LGA
<i>Laurel</i>	4/18/1995	I-1995050030	Highway	No	0/0	\$750	0.03125 LGA
<i>Laurel</i>	1/26/1999	I-1999040931	Highway	No	0/0	\$0	1 LGA
<i>Laurel</i>	11/30/1999	I-1999121599	Highway	No	0/0	\$25	1 LGA
<i>Laurel</i>	11/21/2003	I-2004050459	Highway	Yes	0/0	\$884	700 LGA
<i>Laurel</i>	9/18/2007	I-2007100845	Highway	No	0/0	\$0	0.015625 LGA
<i>Laurel</i>	6/28/2008	I-2008080089	Highway	No	0/0	\$1,040	10 LGA
<i>Laurel</i>	9/8/2010	I-2010090316	Highway	No	0/0	\$0	0.25 LGA
<i>Laurel</i>	8/16/2012	X-2013040015	Highway	No	0/0	\$0	0.25 LGA

<i>Laurel</i>	12/4/2015	E-2016010015	Highway	No	0/0	\$0	0.5 LGA
<i>Laurel</i>	8/15/2017	E-2017080732	Highway	No	0/0	\$0	2 LGA
<i>Laurel</i>	4/24/2020	E-2020050098	Highway	No	0/0	\$0	1 LGA
<i>Laurel</i>	5/13/2021	E-2021060336	Highway	No	0/0	\$130,010	5 LGA
<i>Laurel</i>	6/27/2022	E-2022070940	Highway	No	0/0	\$0	15 LGA
<i>Laurel</i>	11/29/2023	E-2023120088	Highway	No	0/0	\$5,000	20 LGA
The Town of Sandersville							
<i>Sandersville</i>	5/10/1977	I-1977060053	Highway	No	0/0	\$0	1 LGA
<i>Sandersville</i>	3/24/1989	I-1989040045	Highway	Yes	0/0	\$0	6,960 LGA
<i>Sandersville</i>	8/31/1999	I-1999100303	Highway	No	0/0	\$400	40 LGA
<i>Sandersville</i>	11/17/2002	I-2002120544	Highway	No	0/0	\$0	3 LGA
The Town of Soso							
<i>None Reported</i>	--	--	--	--	--	--	--
Unincorporated Area in Jones County							
<i>Sand Hill</i>	5/1/1978	I-1978051074	Highway	Yes	0/0	\$0	550 LGA
<i>Moselle</i>	6/14/1978	I-1978061581	Highway	Yes	0/0	\$0	1,000 LGA
<i>Ovett</i>	1/22/1988	I-1988020220	Highway	Yes	1/0	\$0	200 LGA
<i>Ovett</i>	8/26/1989	I-1989090177	Highway	Yes	0/0	\$0	392 LGA
<i>Moselle</i>	11/30/1994	I-1995010081	Highway	No	0/0	\$505	0.125 LGA
<i>Moselle</i>	5/19/1995	I-1995060890	Highway	No	0/0	\$525	0.03125 LGA
<i>Sharon</i>	12/22/1997	I-1998010684	Highway	No	0/0	\$0	20 LGA
<i>Moselle</i>	9/21/1998	I-1998100283	Highway	No	0/0	\$420	1 LGA
<i>Moselle</i>	10/2/1998	I-1998100613	Highway	No	0/0	\$800	15 LGA
<i>Moselle</i>	1/20/1999	I-1999020002	Highway	No	0/0	\$2,810	0.5 LGA
<i>Moselle</i>	8/21/2000	I-2000090177	Highway	No	0/0	\$380	1 LGA
<i>Moselle</i>	8/26/2002	I-2002090623	Highway	No	0/0	\$475	8 LGA
<i>Union</i>	7/29/2004	I-2004080718	Highway	No	0/0	\$0	5000 SLB
<i>Moselle</i>	12/2/2020	X-2020120350	Rail	Yes	0/0	\$1,025,000	20 LGA
Total:	64	--	--		1/0	1,400,346	

Pipelines

Between 2019 and 2024, there have been no pipeline incidents in Jones County.

Meth Labs

Meth lab incidents have occurred at various times throughout the Jones County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

Given the location of twelve toxic release inventory sites in Jones County and several roadway and rail incidents, it is possible that a hazardous material incident may occur in the county (between one percent and ten percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Since there are twelve TRI sites and a significant record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and curvy, mountain roadways.

Pipelines

Although there have been no pipeline incidents, there are 577 miles of gas and hazardous liquid lines in the county, and it is anticipated that there will be future pipeline incidents in Jones County. These incidents are considered possible.

Meth Labs

Meth lab incidents will likely continue to occur throughout Jones County. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

E.2.14 Cyber Attacks

A **cyber-attack** is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. A **cyberterrorism event** can impact one or more of Jones County's and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The **cyberterrorism hazard** is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. **Targets of cyberterrorism** can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in Jones County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact on Jones County. As such, the county will continue to be compelled to respond to acts of cyberterrorism in the future. The nature of these attacks is projected to evolve in sophistication over time. Jones County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations.

The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer daily intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

E.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. Jones County chose to analyze this hazard given the economic and social impacts of the COVID-19 Pandemic. The Covid Virus mutated several times which caused reinfection of some individuals and the closure of several businesses and schools for several months.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be closed, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted to the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused by a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Like other pandemics, this pandemic had two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. Similarity to the then recent, 1957 Asian Flu, may have provided some lingering immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and

those with chronic respiratory, cardiac, neurological, or immunity conditions. Worldwide, it is estimated that 43 million to 89 million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spread quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Jones County had 26,729 cases of COVID and 316 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immuno-compromised, have certain disabilities, or have underlying health conditions.

In addition to the above pandemics, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Jones County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemics can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154,pdf/SNSPlan.pdf>

E.2.15 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its “How-to” guidance document titled Understanding Your Risks:

Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table E.23 describes the extent of each natural hazard identified for Jones County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE E.23: EXTENT OF JONES COUNTY HAZARDS

HAZARD	DESCRIPTION
Tectonic Hazards	
Earthquake	Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Jones County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, USGS data shows Jones County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.
Mass-Movements	
Landslide	As noted above in the landslide profile, there is no extensive history of landslides in Jones County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout the county. There is also susceptibility throughout the county.
Expansive Soils	As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Jones County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Jones County.
Hydraulic Hazards	
Drought	Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Jones County has received this ranking several times over the reporting period.
Floods	Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 19.9 percent of the total land area in Jones County. Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at Tallahala Creek Laurel in 1919. Water reached a discharge of 38,300 cubic feet per second and the stream gauge height was recorded at 26.00 feet.
Dam Failure	Dam Failure extent is defined using the Mississippi Division of Environmental Quality criteria. Five dams are classified as high hazard in the county.
Meteorological Hazards	
Hurricane and Tropical Storms	Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Jones County was a Category 3 storm (Hurricane Katrina in 2005) which carried tropical force winds of 130 miles per hour upon arrival in the county.
Thunderstorms/ Hail/ Lightning/ Wind	Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Jones County was last reported on April 17, 2020, at 78 knots (approximately 90 mph). It should be noted that future events may exceed these historical occurrences. Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Jones County was 2.75 inches (last reported on March 22, 2005). It should be noted that future events may exceed this. According to the Vaisala's flash density map, Jones County is in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.
Winter Storms	The extent of winter storms can be measured by the amount of snowfall received (in inches). Official long-term snow records are not kept for any areas in the MEMA District 8 Region. However, the greatest snowfall reported in Jackson (north of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.
Temperature	A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into triple digits across much of the region. Across

Extremes/ Heat Wave	the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.
Tornado	Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Jones County was an EF4 (reported on April 12, 2020).
Biological Hazards	
Pandemic	The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life. Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spread quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019, changing the way people view Pandemics. Jones County had 26,729 cases of COVID and 316 deaths
Other Natural Hazards	
Wildfire	Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by each county from 2010-2023. The greatest number of fires occurring in Jones County in any year was 53 in 2011. The greatest number of acres burned in the county in a single year occurred in 2011 when 400 acres were burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.
Erosion	The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Jones County.
Climate Change	The extent Climate change will impact Jones County is hard to estimate. It could cause more intense, frequent, and/or magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase so will property damage and possible loss of life.
Other Hazards	
Cyber Attack	The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damage depends on the whims and demands of the cyberterrorist and their willingness to honor their bargains, even if demands are possible to meet.
Hazard Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the county is 6,960 LGA released on the highway in Sandersville, an unincorporated community. It should be noted that larger events are possible. A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled. Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

To draw some meaningful planning conclusions on hazard risk for Jones County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a “*Priority Risk Index*” (*PRI*). More information on the *PRI* and how it was calculated can be found in *Section 5.16.2*.

Table E.24 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the *PRI*. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating *PRI* values and making final determinations for the risk assessment.

TABLE E.24: SUMMARY OF PRI RESULTS FOR JONES COUNTY

	Category/Degree of Risk
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HAZARD	Probability	Impact	Spatial Extent	Warning Time	Duration	PRI Score
Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/ Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/ High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Possible	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2

E.2.17 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Jones County, including the PRI results and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table E.25). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of Jones County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in Section 6: *Vulnerability Assessment* and below in Section E.3. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE E.25: CONCLUSIONS ON HAZARD RISK FOR JONES COUNTY

High Risk	<i>Drought/Heat Wave Hurricane and Tropical Storm Thunderstorm/ High Wind Tornado Flood Lightning Pandemic</i>
Moderate Risk	<i>Climate Change Hail Pipeline Incident Hazardous Materials Incident Wildfire Dam Failure Winter Storm and Freeze</i>
Low Risk	<i>Expansive Soil Landslide Meth Lab Incident Pandemic Erosion Cyber Attack</i>

E.3 JONES COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Jones County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact and expected amount of damages caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in Section 6: Vulnerability Assessment.

E.3.1 Asset Inventory

Table E.26 lists the number of parcels and the total assessed value of improvements for Jones County and its participating jurisdictions (study area of vulnerability assessment).

TABLE E.26: IMPROVED PROPERTY IN JONES COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Jones County	41,590	\$2,814,125,428

Table E.27 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Jones County. HAZUS was used to obtain the critical facilities for the county and this data was modified to reflect recent changes. In addition, **Figure E.11** shows the locations of essential facilities in Jones County. **Table E.28**, near the end of this section, shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

TABLE E.27: CRITICAL FACILITY INVENTORY IN JONES COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools	Houses of Worship
<i>Ellisville</i>	3	1	0	0	2	
<i>Laurel</i>	5	2	1	1	9	
<i>Sandersville</i>	1	1	0	0	0	
<i>Soso</i>	1	1	0	0	0	
<i>Unincorporated Area</i>	20	--	0	0	7	
Jones County Total:	30	5	1	1	18	141

Table E.28 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an "X").

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP	Fixed HAZMA T 500-	Mobile HAZMAT 500-2500M	Drought	Thunder storm, Lightning,	Hurricane /Tropical	Tornado	Winter Storm &	Earth quake	Land-slide	Dam & Levee	100-Year	500-Year

		Hazard	2500M Roads & Rails	Roads & Rails		& Hail	Storm		Freeze			Failure	Flood	Flood
Jones County Critical Facilities														
EOC	EOC	Non-burnable	X	X	X	X	X	X	X	X				X
Court House District 1	Govt.	Non-burnable		X	X	X	X		X	X				
Court House District 2	Govt.	Non-burnable	X	X	X	X	X	X	X	X				
Beat 1 Barn	Public Works	HIGH			X	X	X		X	X				
Beat 2 Barn	Public Works	HIGH			X	X	X		X	X				
Beat 3 Barn	Public Works	Non-burnable		X	X	X	X		X	X				
Beat 4 Barn	Public Works	LOW		X	X	X	X		X	X				
Beat 5 Barn	Public Works	Non-burnable	X	X	X	X	X	X	X	X				
Jones Co. Maintenance Office	Public Works	Non-burnable		X	X	X	X		X	X				
Adult Deten. Facility	Deten. Facility	Non-burnable		X	X	X	X		X	X				
Juvenile Deten. Facility	Deten. Facility	Non-burnable		X	X	X	X		X	X				
Safe Room / Shelter	Safe Room	Moderate	X	X	X	X	X	X	X	X				
Sheriff's Department	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
South Central Regional Medical Center	Care Facility	Non-burnable	X	X	X	X	X		X	X				
Hebron VFD	Fire Station	LOW		X	X	X	X		X	X				
Pleasant Ridge VFD	Fire Station	HIGH		X	X	X	X		X	X				
Soso VFD	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Calhoun VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Sharon VFD	Fire Station	HIGH			X	X	X		X	X				
Shady Grove VFD	Fire Station	HIGH			X	X	X		X	X				
Sandersville VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Ruston VFD	Fire Station	HIGH			X	X	X		X	X				
Powers VFD	Fire Station	Non-burnable	X	X	X	X	X		X	X				
M & M VFD	Fire Station	Non-burnable			X	X	X		X	X				
Glade VFD	Fire Station	Moderate			X	X	X		X	X				
Ovett VFD	Fire Station	Moderate			X	X	X		X	X				
Johnson VFD	Fire Station	LOW		X	X	X	X		X	X				
Union VFD	Fire Station	HIGH		X	X	X	X		X	X				
Moselle VFD	Fire Station	HIGH		X	X	X	X		X	X				
			Other			Atmospheric					Geologic	Hydrologic		

Facility Name	Facility Type	WHP Hazard	Fixed HAZMA T 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
Southwest Jones VFD	Fire Station	LOW			X	X	X		X	X				
Boggy VFD	Fire Station	LOW			X	X	X	X	X	X				
Ellisville State School	School	Non-burnable		X	X	X	X		X	X			X	
East Jones Elem. School	School	HIGH	X	X	X	X	X		X	X				
Glade Elem. School	School	LOW			X	X	X		X	X				
Moselle Elem. School	School	HIGH		X	X	X	X		X	X				
North Jones Elem. School	School	LOW		X	X	X	X		X	X				
South Jones Elem. School	School	LOW		X	X	X	X		X	X			X	
West Jones Elem. School	School	Non-burnable		X	X	X	X		X	X				
Northeast Jones High School	School	HIGH	X	X	X	X	X		X	X				
South Jones High School	School	Non-burnable		X	X	X	X	X	X	X				
West Jones High School	School	Moderate		X	X	X	X		X	X				
A P Fathree Voc. Tech	School	Moderate	X	X	X	X	X		X	X				
Jones Co. Learning Center	School	Moderate	X	X	X	X	X		X	X				
Laurel City Hall	Govt.	Non-burnable	X	X	X	X	X	X	X	X				
Laurel City Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				X
Laurel Fire Department #1	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Laurel Fire Department #2	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Laurel Fire Department #4	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Laurel Fire Department #5	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Laurel Fire Department #6	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				X
Public Works Facility	Govt.	LOW	X	X	X	X	X		X	X				
Water Department	Public Works	Non-burnable	X	X	X	X	X	X	X	X				X
Laurel High School	School	Non-burnable	X	X	X	X	X		X	X				
Laurel Educ. Center	School	LOW	X	X	X	X	X		X	X				
Oak Park Elem. School	School	Non-burnable	X	X	X	X	X	X	X	X				
Nora Davis Elem. School	School	Non-burnable	X	X	X	X	X	X	X	X				
Laurel Upper Elem. School	School	LOW	X	X	X	X	X		X	X				
South Jones VFD	Fire Station	LOW			X	X	X		X	X				
			Other		Atmospheric					Geologic		Hydrologic		

Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
Laurel Magnet School of the Arts	School	Non-burnable	X	X	X	X	X		X	X			X	
Laurel Vocational Complex	School	Non-burnable	X	X	X	X	X		X	X				
Laurel Middle School	School	LOW	X	X	X	X	X		X	X				
Immaculate Conception School	School	Non-burnable	X	X	X	X	X		X	X				
Laurel Christian School	School	HIGH	X	X	X	X	X		X	X				
ST Johns Day School	School	Non-burnable	X	X	X	X	X		X	X				
Hesler-Noble Field	General Aviation	LOW	X	X	X	X	X		X	X				
Hattie. -Laurel Regional Airport	General Aviation	LOW	X	X	X	X	X		X	X				
Ellisville City Hall	Govt.	Non-burnable		X	X	X	X		X	X				
Ellisville Police Dept	Police Station	Non-burnable		X	X	X	X		X	X				
Ellisville Fire Department #1	Fire Station	Non-burnable		X	X	X	X		X	X				
Ellisville Fire Department #2	Fire Station	Non-burnable		X	X	X	X		X	X				
Ellisville Fire Department #3	Fire Station	Non-burnable		X	X	X	X		X	X				
Public Works	Govt.	HIGH		X	X	X	X		X	X			X	
Sewer Department	Waste-water	Moderate	X	X	X	X	X		X	X			X	
Sandersville Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				X
Public Works	Govt.	HIGH		X	X	X	X		X	X			X	
Sewer Department	Waste-water	Moderate	X	X	X	X	X		X	X			X	
Water Department	Public Works	Non-burnable	X	X	X	X	X	X	X	X				X
Soso Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				X
Public Works	Govt.	HIGH		X	X	X	X		X	X			X	
Sewer Department	Waste-water	Moderate	X	X	X	X	X		X	X			X	
Water Department	Public Works	Non-burnable	X	X	X	X	X	X	X	X				X
Agape Church of Jones County	House of Worship			X	X	X	X		X	X				
Antioch United Methodist Church	House of Worship			X	X	X	X		X	X				
Audubon Drive Bible Church	House of Worship			X	X	X	X		X	X				
Berean Baptist Church	House of Worship			X	X	X	X		X	X				
Bethlehem Baptist Church	House of Worship			X	X	X	X		X	X				
		Other			Atmospheric					Geologic	Hydrologic			

Facility Name	Facility Type	WHP Hazard	Fixed HAZMA T 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
Bethlehem Community Church	House of Worship			X	X	X	X		X	X				
Big Creek Baptist Church	House of Worship			X	X	X	X		X	X				
Calvary Baptist Church	House of Worship			X	X	X	X		X	X				
Center Point Christian Church	House of Worship			X	X	X	X		X	X				
Centerville Baptist Church	House of Worship			X	X	X	X		X	X				
Christian Valley Missionary Baptist Church	House of Worship			X	X	X	X		X	X				
Christian Life Church	House of Worship			X	X	X	X		X	X				
Church of Christ	House of Worship			X	X	X	X		X	X				
Ignite Church	House of Worship			X	X	X	X		X	X				
Church of the Harvest	House of Worship			X	X	X	X		X	X				
County Line Baptist Church	House of Worship			X	X	X	X		X	X				
Covenant Presbyterian Church	House of Worship			X	X	X	X		X	X				
Crosspointe Community Church	House of Worship			X	X	X	X		X	X				
Dudley United Methodist Church	House of Worship			X	X	X	X		X	X				
East Laurel Church of Christ	House of Worship			X	X	X	X		X	X				
East Laurel Pentecostal Jesus Name Church	House of Worship			X	X	X	X		X	X				
Eastview Baptist Church	House of Worship			X	X	X	X		X	X				
Ellisville Church of Christ	House of Worship			X	X	X	X		X	X				
Ellisville First Assembly of God	House of Worship			X	X	X	X		X	X				
Ellisville First Methodist Church	House of Worship			X	X	X	X		X	X				
Ellisville Presbyterian Church	House of Worship			X	X	X	X		X	X				
Emmanuel Baptist Church	House of Worship			X	X	X	X		X	X				
Evangel Temple	House of Worship			X	X	X	X		X	X				
Fairfield Baptist Church	House of Worship			X	X	X	X		X	X				
Fairfield Methodist Church	House of Worship			X	X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		

Facility Name	Facility Type	WHP Hazard	Fixed HAZMA T 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
Faith Arena	House of Worship			X	X	X	X		X	X				
Faith Community Church	House of Worship			X	X	X	X		X	X				
Faith Sanctuary of Praise Baptist Church	House of Worship			X	X	X	X		X	X				
Fellowship Baptist Church	House of Worship			X	X	X	X		X	X				
First Baptist Church (Laurel)	House of Worship			X	X	X	X		X	X				
First Baptist Church (Ellisville)	House of Worship			X	X	X	X		X	X				
First Baptist Church Calhoun	House of Worship			X	X	X	X		X	X				
First Baptist Church Myrick	House of Worship			X	X	X	X		X	X				
First Baptist Church of Sharon	House of Worship			X	X	X	X		X	X				
First Baptist Church-Shady Grove	House of Worship			X	X	X	X		X	X				
First Church of Nazarene Laurel	House of Worship			X	X	X	X		X	X				
First United Methodist Church (Laurel)	House of Worship			X	X	X	X		X	X				
First-Trinity Presbyterian Church	House of Worship			X	X	X	X		X	X				
Franklin United Methodist Church	House of Worship			X	X	X	X		X	X				
Freedom Baptist Church	House of Worship			X	X	X	X		X	X				
Fresh Oil Ministry	House of Worship			X	X	X	X		X	X				
Friendship Baptist Church (Johnson Community)	House of Worship			X	X	X	X		X	X				
Friendship Missionary Baptist Church	House of Worship			X	X	X	X		X	X				
Gitano United Methodist Church	House of Worship			X	X	X	X		X	X				
Glade Baptist Church	House of Worship			X	X	X	X		X	X				
Goodwill Missionary Baptist Church	House of Worship			X	X	X	X		X	X				
Grace Baptist Church	House of Worship			X	X	X	X		X	X				
Grace Covenant Church	House of Worship			X	X	X	X		X	X				
Greater Jerusalem MB Church	House of Worship			X	X	X	X		X	X				
Hebron Baptist Church	House of Worship			X	X	X	X		X	X				
Highland Baptist Church	House of Worship			X	X	X	X		X	X				
		Other			Atmospheric					Geologic		Hydrologic		

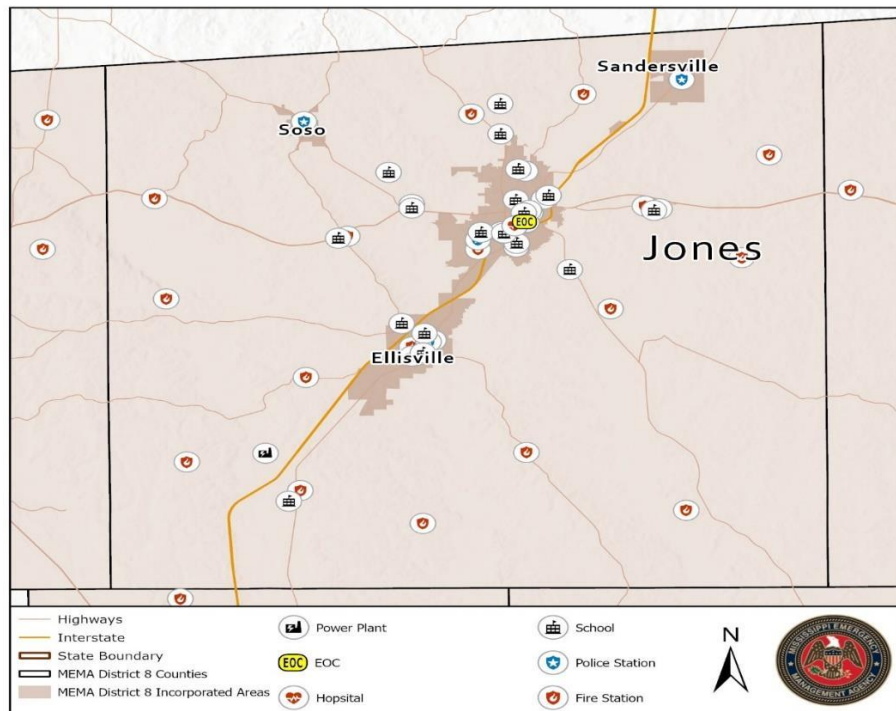
Facility Name	Facility Type	WHP Hazard	Fixed HAZMA T 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
Iglesia Adventista del Séptimo Día Hispana de Laurel - Bethel	House of Worship			X	X	X	X		X	X				
Iglesia El Faro	House of Worship			X	X	X	X		X	X				
Ignite Church	House of Worship			X	X	X	X		X	X				
Immaculate Conception Church	House of Worship			X	X	X	X		X	X				
Indian Springs Baptist Church	House of Worship			X	X	X	X		X	X				
Jesus Name Church-Ellisville	House of Worship			X	X	X	X		X	X				
Jesus Name Home Church (Crestwood Academy)	House of Worship			X	X	X	X		X	X				
Journey Church Northeast campus	House of Worship			X	X	X	X		X	X				
Journey Church North Laurel campus	House of Worship			X	X	X	X		X	X				
Keys Temple Church of God	House of Worship			X	X	X	X		X	X				
Kingston Assembly of God	House of Worship			X	X	X	X		X	X				
Kingston United Methodist Church	House of Worship			X	X	X	X		X	X				
Lake Congregational Methodist Church	House of Worship			X	X	X	X		X	X				
Laurel Seventh Day Adventist Church	House of Worship			X	X	X	X		X	X				
Lawn Haven Baptist Church	House of Worship			X	X	X	X		X	X				
Life Church	House of Worship			X	X	X	X		X	X				
Lighthouse Church	House of Worship			X	X	X	X		X	X				
Lowery Creek Baptist Church	House of Worship			X	X	X	X		X	X				
Magnolia Baptist Church	House of Worship			X	X	X	X		X	X				
Mallalieu United Methodist Church	House of Worship			X	X	X	X		X	X				
Mill Creek Church	House of Worship			X	X	X	X		X	X				
Mill Creek Church of God	House of Worship			X	X	X	X		X	X				
Morning Star Baptist Church	House of Worship			X	X	X	X		X	X				
Moselle Memorial Baptist Church	House of Worship			X	X	X	X		X	X				
		Other			Atmospheric					Geologic	Hydrologic			

Facility Name	Facility Type	WHP Hazard	Fixed HAZMA T 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
Mt Bethel MB Church	House of Worship			X	X	X	X		X	X				
Mt Moriah Missionary Baptist Church	House of Worship			X	X	X	X		X	X				
Mt Olive Baptist Church	House of Worship			X	X	X	X		X	X				
Mt Vernon Congregational Church	House of Worship			X	X	X	X		X	X				
Mt Williams Church	House of Worship			X	X	X	X		X	X				
New Bethany Baptist Church	House of Worship			X	X	X	X		X	X				
New Fellowship Baptist Church	House of Worship			X	X	X	X		X	X				
New Hope Baptist Church	House of Worship			X	X	X	X		X	X				
New Jerusalem Full Gospel Church	House of Worship			X	X	X	X		X	X				
New Testament Interdenominational	House of Worship			X	X	X	X		X	X				
Oak Grove Baptist Church	House of Worship			X	X	X	X		X	X				
Oakland Grove Baptist Church	House of Worship			X	X	X	X		X	X				
Open Door Baptist Church	House of Worship			X	X	X	X		X	X				
Park Haven Baptist Church	House of Worship			X	X	X	X		X	X				
Parkview Baptist Church	House of Worship			X	X	X	X		X	X				
Pecan Grove First Baptist Church	House of Worship			X	X	X	X		X	X				
Pine Grove MB Church	House of Worship			X	X	X	X		X	X				
Pineview Baptist Church (Excellence Learning Academy)	House of Worship			X	X	X	X		X	X				
Plainway Baptist Church	House of Worship			X	X	X	X		X	X				
Pleasant Grove Baptist Church	House of Worship			X	X	X	X		X	X				
Pleasant Grove Missionary Baptist Church	House of Worship			X	X	X	X		X	X				
Pleasant Home Baptist Church	House of Worship			X	X	X	X		X	X				
Pleasant Ridge Baptist Church	House of Worship			X	X	X	X		X	X				
Pleasant Ridge Baptist Church (The Ridge) Ellisville	House of Worship			X	X	X	X		X	X				
Pleasant Valley Missionary Church	House of Worship			X	X	X	X		X	X				
Praise Tabernacle Church	House of Worship			X	X	X	X		X	X				
		Other			Atmospheric					Geologic	Hydrologic			

Facility Name	Facility Type	WHP Hazard	Fixed HAZMA T 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
Prince of Peace Lutheran Church (YWCO)	House of Worship			X	X	X	X		X	X				
Providence Baptist Church	House of Worship			X	X	X	X		X	X				
Restoration Life Christian Center / Iglesia Misionera Pentecoste Pan Divida Inc.	House of Worship			X	X	X	X		X	X				
Riverside Baptist Church	House of Worship			X	X	X	X		X	X				
Salem Heights Baptist Church	House of Worship			X	X	X	X		X	X				
Salvation in Christ Church	House of Worship			X	X	X	X		X	X				
Sand Hill Baptist Church	House of Worship			X	X	X	X		X	X				
Second Baptist Missionary Church	House of Worship			X	X	X	X		X	X				
Shelton Baptist Church	House of Worship			X	X	X	X		X	X				
Skyview Congregational Methodist Church	House of Worship			X	X	X	X		X	X				
Soso First Baptist Church	House of Worship			X	X	X	X		X	X				
Soso Seventh Day Adventist Church	House of Worship			X	X	X	X		X	X				
Spring Hill Baptist Church	House of Worship			X	X	X	X		X	X				
St Elmo Baptist Church	House of Worship			X	X	X	X		X	X				
St John Baptist Church	House of Worship			X	X	X	X		X	X				
St Johns Episcopal Church	House of Worship			X	X	X	X		X	X				
St Paul United Methodist Church	House of Worship			X	X	X	X		X	X				
Sunlight Baptist Church	House of Worship			X	X	X	X		X	X				
Sweet Hope Baptist Church	House of Worship			X	X	X	X		X	X				
Temple Baptist Church	House of Worship			X	X	X	X		X	X				
The Church of Christian Unity	House of Worship			X	X	X	X		X	X				
The Church of Jesus Christ of Latter-Day Saints	House of Worship			X	X	X	X		X	X				
The Glory House Global Outreach Center	House of Worship			X	X	X	X		X	X				
The Pentecostal Church of God	House of Worship			X	X	X	X		X	X				
		Other			Atmospheric					Geologic	Hydrologic			

Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT T 500- 2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder storm, Lightning & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Jones County Critical Facilities Continued														
The Rock Church	House of Worship			X	X	X	X		X	X				
Trinity Baptist Church	House of Worship			X	X	X	X		X	X				
Tuckers Crossing Baptist Church	House of Worship			X	X	X	X		X	X				
United Missionary Baptist Church	House of Worship			X	X	X	X		X	X				
Unity Baptist Church	House of Worship			X	X	X	X		X	X				
Victory Hill Baptist Church & Ministries	House of Worship			X	X	X	X		X	X				
Welcome Home Jesus Name Church	House of Worship			X	X	X	X		X	X				
West Ellisville Baptist Church	House of Worship			X	X	X	X		X	X				
West Laurel Baptist Church	House of Worship			X	X	X	X		X	X				
West Laurel United Methodist Church	House of Worship			X	X	X	X		X	X				
Westminster Presbyterian Church	House of Worship			X	X	X	X		X	X				
White Oak Baptist Church	House of Worship			X	X	X	X		X	X				

FIGURE E.11: CRITICAL FACILITY LOCATIONS IN JONES COUNTY



E.3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Jones County that are potentially at risk to these hazards.

Table E.29 lists the population by jurisdiction according to U.S. Census 2020 population estimates. census block level, limited the total population in Jones County according to Census data is 67,246 persons. There was a slight overall decline in population in Jones county. If the population decline continues, it could lead to a decline in the population vulnerability. Additional population estimates are presented above in **Section E.1**.

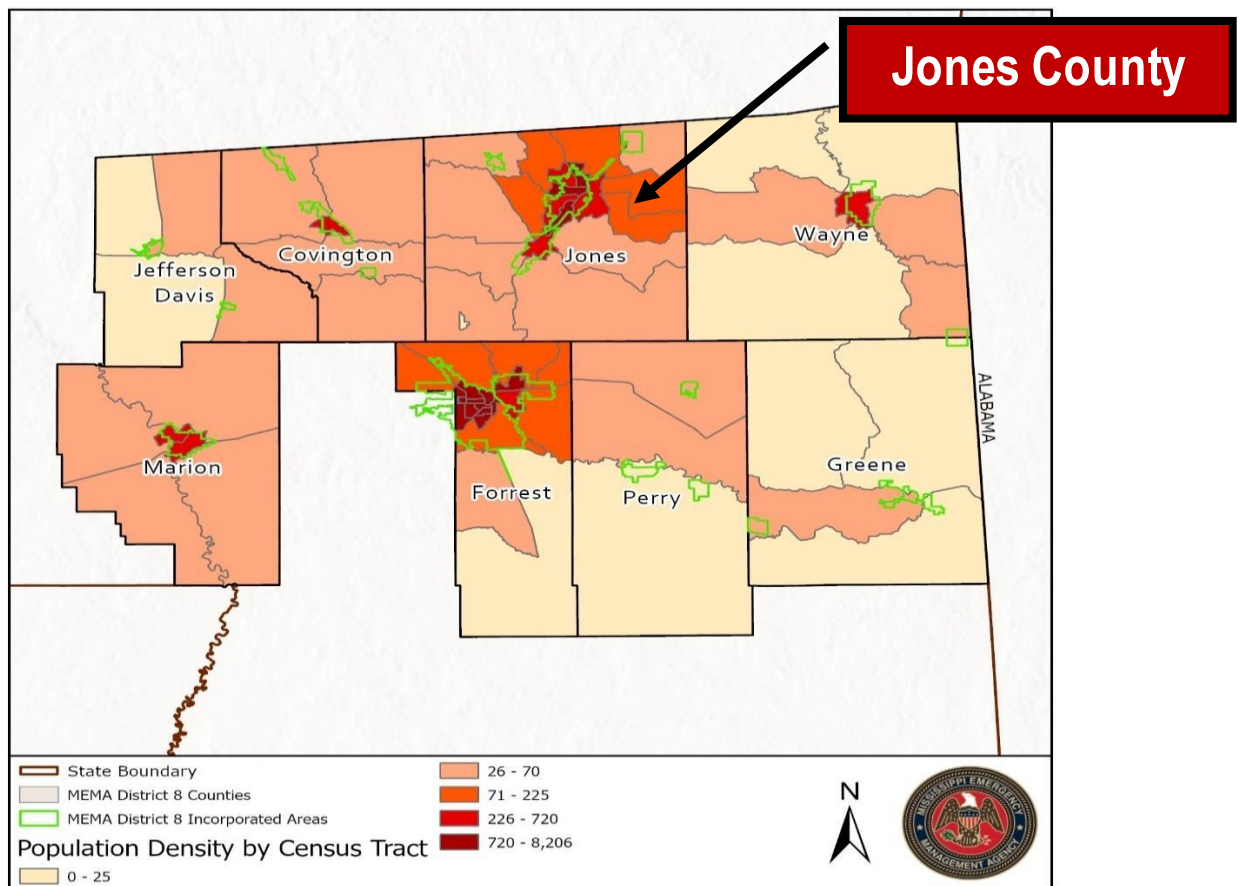
TABLE E.29: TOTAL POPULATION IN Jones COUNTY

Jurisdiction	2010 Census	2020 Census
Jones County Total:	67,761	67,246
<i>Ellisville</i>	4,448	4,652
<i>Laurel</i>	18,540	17,161
<i>Sandersville</i>	731	636
<i>Soso</i>	408	418
<i>Unincorporated Area</i>	44,174	44,379

Source: US Census Bureau

In addition, **Figure E.12** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020.

FIGURE E.12: POPULATION DENSITY IN JONES COUNTY



E.3.3 Vulnerability Assessment Results

As noted in *Section 6: Vulnerability Assessment*, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Jones County, are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table E.28**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

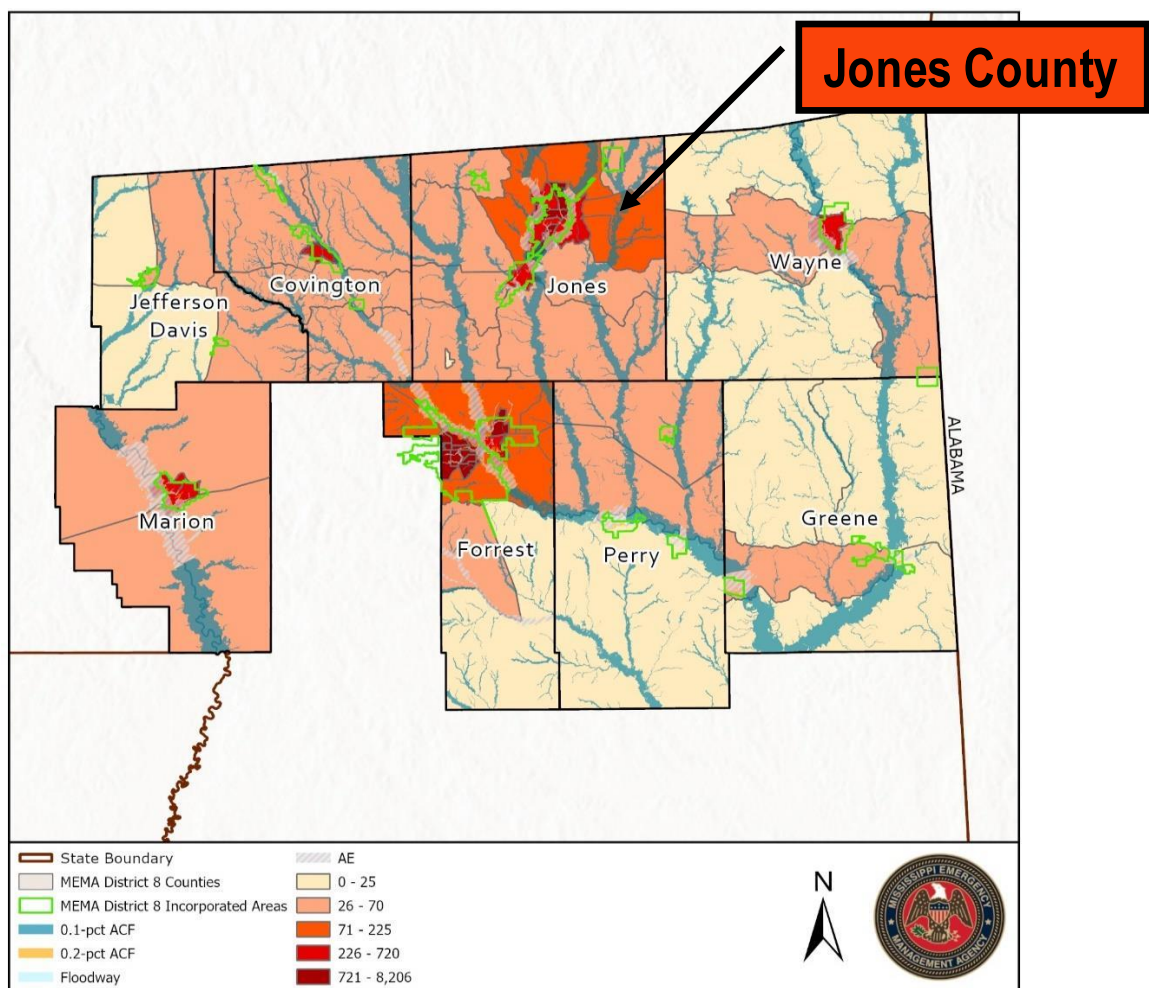
FLOOD

Historical evidence indicates that Jones County is susceptible to flood events. A total of 105 flood events have been reported by the National Centers for Environmental Information resulting in almost \$11 million in damages.

Social Vulnerability

Since 2020 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data. **Figure E.13** is presented to gain a better understanding of at-risk population.

FIGURE E.13 : POPULATION DENSITY NEAR FLOODPLAINS



Critical Facilities

The critical facility analysis revealed that there are eight critical facilities located in the Jones County 1.0-percent annual chance floodplain valued at slightly over \$6M. There are eight critical facilities in the 0.2-percent annual chance floodplain, based on FEMA DFIRM boundaries and GIS analysis, valued at approximately \$1.1M. A list of specific critical facilities and their associated risk can be found in **Table E.28**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Jones County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

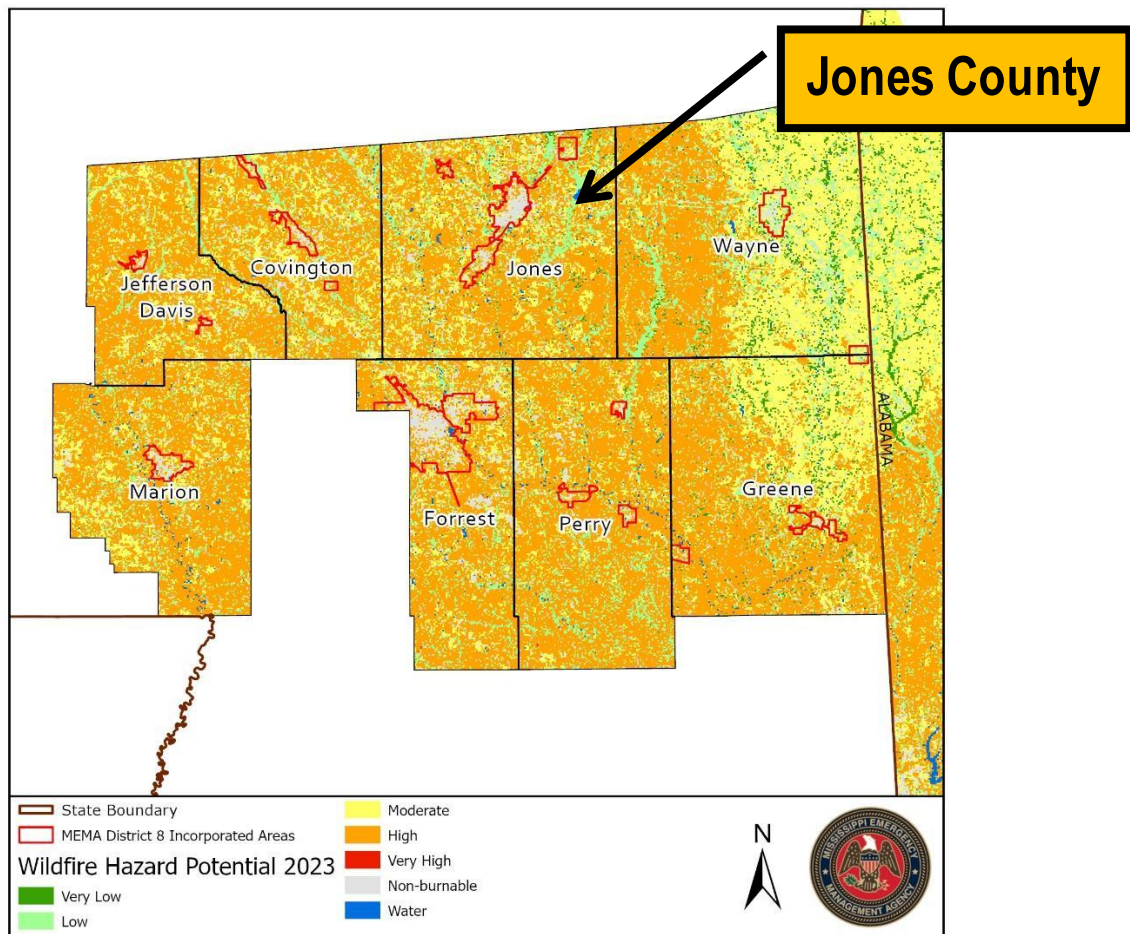
WILDFIRE

Although historical evidence indicates that Jones County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential (WHP 2014) data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure E.14 shows the wildfire hazard potential for Jones County. Most of the planning areas falls within the low to moderate category.

FIGURE E.14: WILDFIRE RISK AREAS IN JONES COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there are 16 critical facilities located in an area considered low or very low risk valued at over \$25M. There are seven critical facilities located in an area considered moderate risk valued at approximately \$29M, and there are an additional 14 structures located in an area considered high risk valued at nearly \$40M. It should be noted, however, that several factors could impact the spread of wildfire, putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table E.28**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Jones County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 88 critical facilities identified for Jones County, valued at \$227,178,957. All are vulnerable to the earthquake hazard.

In conclusion, earthquakes have the potential to impact all existing and future buildings, facilities, and populations in Jones County. The HAZUS scenario indicates that minimal damage is expected from an earthquake occurrence. While Jones County may not experience a large earthquake (there are none on record), localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table E.28**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Jones County has an elevated risk of hurricane and tropical storm hazards. Several tracks have come near or traversed through the county, as shown and discussed in *Section E.2.10*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk of hurricane and tropical storm hazards. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There is an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario's region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amounts of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of 2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Jones County, all critical facilities are considered at risk. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. There are 88 critical facilities identified for Jones County, valued at \$227,178,957. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation action for especially vulnerable and/or critical facilities to mitigate against the effects of the hurricane hazard. A list of specific critical facilities can be found in **Table E.28**.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in Jones County. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

HAZARDOUS MATERIALS INCIDENT

Although historical evidence and existing Toxic Release Inventory sites indicate that Jones County is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

To conduct a vulnerability assessment for this hazard, GIS intersection analysis was used for fixed and mobile areas and parcels. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Jones County, along with buffers, were used for analysis as shown in **Figure E.15**. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis. **Figure E.16** shows the areas used for mobile toxic release buffer analysis. The mobile toxic release buffer data has not changed since the last plan update.

FIGURE E.15 : TRI SITES WITH BUFFERS IN JONES COUNTY

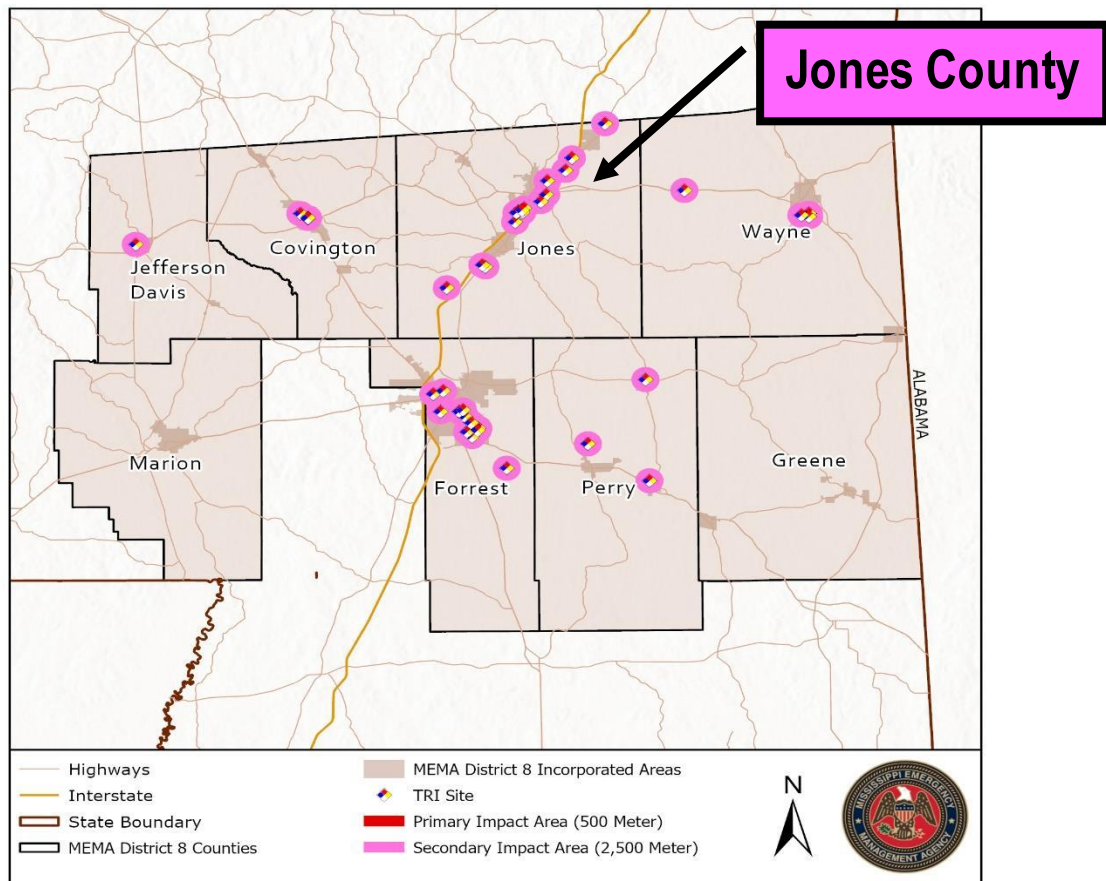
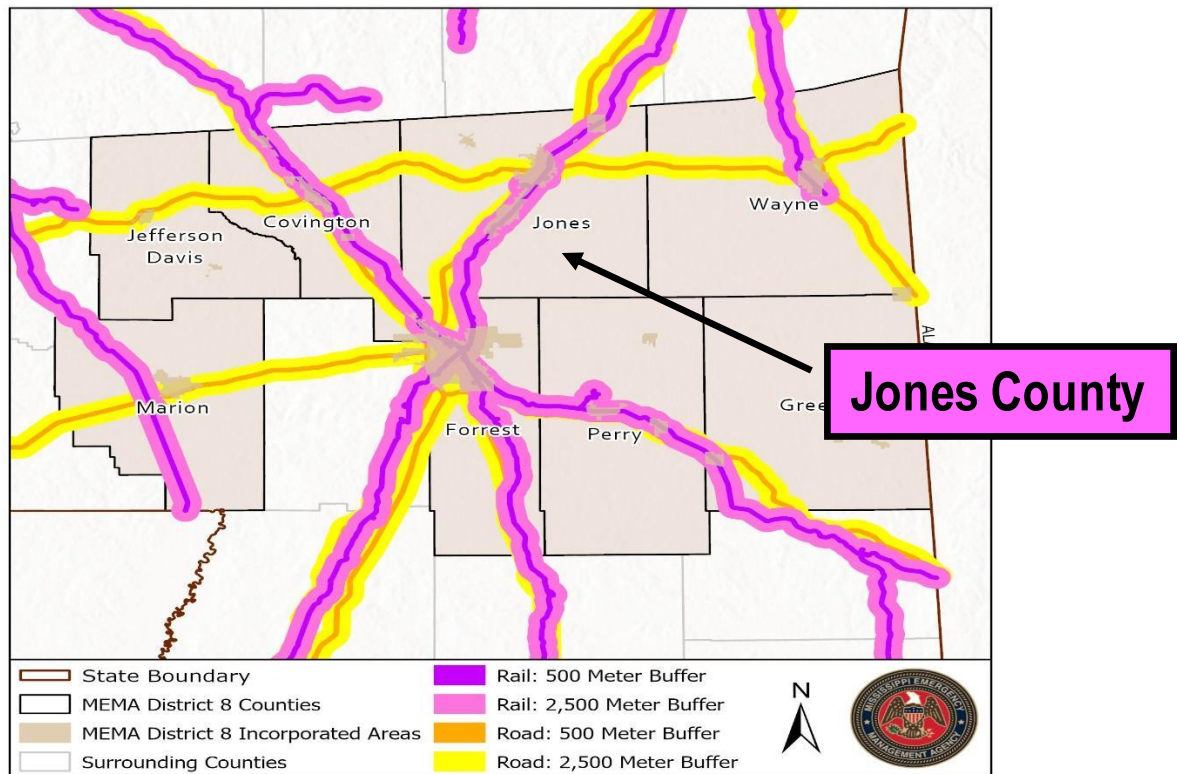


FIGURE E.16 : MOBILE HAZMAT BUFFERS IN JONES COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden of evacuating population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are five critical facility that would be impacted by only the 500M HAZMAT risk zone, which are valued at over \$2M. There are 45 critical facilities that would be impacted by the 2500M HAZMAT risk zone, valued at over \$141M. A list of specific critical facilities and their associated risk can be found in **Table E.28** at the end of this section.

Mobile Analysis:

The critical facility analysis for transportation corridors in Jones County revealed that there are 55 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at over \$157M, and there are 44 critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$60.3M.

Expanding to a 2500M HAZMAT risk zone reveals that 71 critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable, valued at over \$186M. There are 67 critical facilities located in the railway mobile HAZMAT buffer area that are vulnerable, valued at over \$172M. A list of specific critical facilities and their associated risk can be found in **Table E.28**.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Jones County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

D.4 JONES COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Jones County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in *Section 7: Capability Assessment*.

D.4.1 Planning and Regulatory Capability

Table E.30 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Jones County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE E.30: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Jones County	Ellisville	Laurel	Sandersville	Soso
Hazard Mitigation Plan	✓	✓	✓	✓	✓
Comprehensive Land Use Plan		✓	✓		
Floodplain Management Plan					
Open Space Management Plan	✓	✓	✓	✓	✓
Stormwater Management Plan/Ordinance			✓		
National Resource Protection Plan					
Flood Response Plan					
Emergency Operations Plan	✓	✓	✓	✓	✓
Continuity of Operations Plan	✓	✓	✓	✓	✓
Evacuation Plan					
Disaster Recovery Plan					
Capital Improvements Plan			✓		
Economic Development Plan	✓	✓	✓	✓	✓
Historic Preservation Plan					
Flood Damage Prevention Ordinance	✓	✓	✓		
Zoning Ordinance	✓	✓	✓		
Subdivision Ordinance	✓	✓	✓		
Unified Development Ordinance					
Post-Disaster Redevelopment Ordinance					
Building Codes		✓	✓		
Fire Codes			✓		
National Flood Insurance Program (NFIP)	✓	✓	✓		
National Community Rating System					

A more detailed discussion on the county's planning and regulatory capabilities follows.

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Jones County has previously adopted a hazard mitigation plan. The City of Ellisville, the City of Laurel, the Town of Sandersville, and the Town of Soso were also included in this plan.

Emergency Operations Plan

Jones County maintains an emergency operations plan through its Emergency Management Agency. The City of Ellisville, the City of Laurel, the Town of Sandersville, and the Town of Soso are each covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Jones County has not adopted a county comprehensive land use plan. However, the City of Ellisville and the City of Laurel each adopted a city comprehensive plan in 1971 and 1970, respectively.

Capital Improvements Plan

Jones County has not adopted a capital improvements plan. However, the City of Laurel has a capital improvement plan in place.

Zoning Ordinance

Jones County does not have a zoning ordinance in place. However, the City of Ellisville and the City of Laurel have zoning ordinances that were adopted in 1971 and 1985, respectively.

Subdivision Ordinance

Jones County has previously adopted subdivision regulations. The City of Ellisville and the City of Laurel also adopted subdivision regulations in 1971 and 1985, respectively.

Building Codes, Permitting, and Inspections

Jones County, the City of Ellisville, and the City of Laurel have each adopted a building code.

FLOODPLAIN MANAGEMENT

Table E.31 provides NFIP policy and claim information for each participating jurisdiction in Jones County.

TABLE E.31: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
Jones County†	12/16/1990	9/29/2010	133	\$17,174,300	28	\$237,123
Ellisville	12/16/1988	9/29/2010	24	\$2,281,200	5	\$46,027
Laurel	9/15/1977	9/29/2010	254	\$30,415,800	75	\$398,815
Sandersville*	--	9/29.2010(M)	--	--	--	--
Soso*	--	--	--	--	--	--

†Includes unincorporated areas of county only
(M) – No Elevation Determined, All Zone A, C and X

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Jones County, the City of Ellisville, and the City of Laurel all participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Jones County, the City of Ellisville, the City of Laurel, the Town of Sandersville, and the Town of Soso are all included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

Stormwater Management Plan

Jones County has not adopted a stormwater management plan or ordinance. However, the City of Laurel adopted a stormwater detention requirements ordinance in 2000.

E.4.2 Administrative and Technical Capability

Table E.32 provides a summary of the capability assessment results for Jones County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE E.32: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Jones County	Ellisville	Laurel	Sandersville	Soso
Planners with knowledge of land development/ land management practices	✓		✓		
Engineers or professionals trained in construction practices related to buildings and/or infrastructure	✓	✓	✓	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards.	✓	✓	✓	✓	✓
Emergency Manager	✓	✓	✓	✓	✓
Floodplain Manager	✓	✓	✓		
Land Surveyors					
Scientists familiar with the hazards of the community.	✓	✓	✓	✓	✓
Staff with education or expertise to assess the community's vulnerability to hazards.	✓	✓	✓	✓	✓
Personnel skilled in GIS and/or HAZ-US	✓	✓	✓	✓	✓
Resource development staff or grant writers	✓				

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

E.4.3 Fiscal Capability

Table E.33 provides a summary of the results for Jones County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE E.33: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Jones County	Ellisville	Laurel	Sandersville	Soso
Capital Improvement Programing	✓	✓	✓		
Community Development Block Grants (CDBG)	✓	✓	✓	✓	
Special Purchase Taxes (or taxing districts)					
Gas/ Electric Utility Fees					
Water/ Sewer Fees					
Stormwater Utility Fees					
Development Impact Fees					
General Obligation, Revenue, and/or Special Tax Bonds					
Partnering Arrangements or Intergovernmental Agreements	✓	✓	✓	✓	✓

D.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Jones County is more likely to shift in support of hazard mitigation efforts.

E.5 JONES COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Jones County to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability assessment and risk assessment. Additional Information can be found in Section 8: Mitigation Strategy and Section 9: Mitigation Action Plan.

E.5.1 Mitigation Goals

Jones County developed five mitigation goals in coordination with the other participating MEMA District 8 Region jurisdictions. The regional mitigation goals are presented in **Table E.34**.

TABLE E.34: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

Goal	
Goal #1	Develop a sustainable, comprehensive mitigation program to ensure safer communities.
Goal #2	Reduce or avoid loss of life, injury, and damage to property, the economy, and the environment.
Goal #3	Enhance preparedness and effective response to hazards.
Goal #4	Strengthen and improve local mitigation capabilities.
Goal #5	Increase public awareness of hazard mitigation, hazard risk, and protective measures that can be taken to minimize potential loss and damage.

E.5.2 Mitigation Action Plan

The mitigation actions proposed by Jones County, the City of Ellisville, the City of Laurel, the Town of Sandersville, and the Town of Soso are listed in the following individual Mitigation Action Plans.

Jones County Mitigation Action Plan

Action #	Description	Hazard Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Coordinate a floodplain management council with representatives from each of the participating jurisdictions. Conduct meetings to educate and develop a floodplain management program that will address future development and administration of a floodplain program.	Multiple	Moderate	Little to no cost	To be determined	County	Ongoing	Completed & Ongoing
P-2	Evaluate existing land-use studies and determine if any changes need to be made to address land-use in the new designated floodplain areas.	Multiple	High	Local Budget and FMA	To be determined	County	Ongoing	Ongoing
P-3	Assign data collection of each disaster/weather event countywide. This process will aid community leaders in assessing needs as an ongoing process.	Multiple	Moderate	Local Budget and FMA	To be determined	County EMA	Annual	Completed & Ongoing
P-4	Conduct a study throughout the county identifying storm water issues and determine areas that need improvement. Issues include physical and regulatory interventions.	Multiple	Moderate	CDBD, Federal, State, Local	\$150,000	County BOS	3-5 years	Ongoing
P-5	Continue to enforce building codes and exceed the standards when proven cost-effective to withstand higher wind forces that could be delivered by a natural disaster. Develop and training program for city employees	Multiple	Moderate	Local Funds	\$20,000	Municipalities	Ongoing	Ongoing
Property Protection								
PP-1	Upon receipt of the new floodplain maps, review repetitive loss structures and implement a plan to complete the acquisition process.	FL	Moderate	FMA	To be determined	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Evaluate streams and identify potential projects to mitigate stream bank restoration.	FL	Moderate	Grants, BRIC, HMGP, PGM,	To be determined	County	Ongoing	Completed & Ongoing
Emergency Services								
ES-1	Develop a drought council to implement an emergency response plan for the County	DR	Moderate	Little to no cost	To be determined	County EMA	N/A	Deferred—No Drought Council
ES-2	Identify and implement automated mass notification/warning system County wide	All Hazards	High	Grants, BRIC, HMGP	\$15,000-\$20,000 Annually	County & Municipalities	Ongoing	Ongoing
Structural Projects								
SP-1	Flood Elevations	FL	Medium	FEMA	N/A	County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Partner with various stakeholder groups to develop an all-hazard public outreach and education program.	Multiple	High	Little to no Cost	To be Determined	County	Ongoing	Completed & Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds RH = Roadway Hazards TT = Transportation and Technological Hazards CH = Civil Hazards P = Pandemic County EMA = Jones County Emergency Management Agency County BOS = Jones County Board of Supervisors								
City of Ellisville Mitigation Action Plan								

Action #	Description	Hazard Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Coordinate a floodplain management council with representatives from each of the participating jurisdictions. Conduct meetings to educate and develop a floodplain management program that will address future development and administration of a floodplain program.	Multiple	Moderate	Little to no cost	To be determined	County	Ongoing	Completed & Ongoing
P-2	Evaluate existing land-use studies and determine if any changes need to be made to address land-use in the new designated floodplain areas.	Multiple	High	Local Budget and FMA	To be determined	County	Ongoing	Ongoing
P-3	Assign data collection of each disaster/weather event countywide. This process will aid community leaders in assessing needs as an ongoing process.	Multiple	Moderate	Local Budget and FMA	To be determined	County EMA	Annual	Completed & Ongoing
P-4	Conduct a study throughout the county identifying storm water issues and determine areas that need improvement. Issues include physical and regulatory interventions.	Multiple	Moderate	Grants, BRIC, HMGP CDBD, Local	\$150,000	County BOS	3-5 years	Ongoing
P-5	Continue to enforce building codes and exceed the standards when proven cost-effective to withstand higher wind forces that could be delivered by a natural disaster. Develop and training program for city employees	Multiple	Moderate	Local Funds	\$20,000	Municipalities	Ongoing	Ongoing
Property Protection								
PP-1	Upon receipt of the new floodplain maps, review repetitive loss structures and implement a plan to complete the acquisition process.	FL	Moderate	Grants, BRIC, HMGP, FMA	To be determined	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Evaluate streams and identify potential projects to mitigate stream bank restoration.	FL	Moderate	Grants, BRIC, HMGP, PGM,	To be determined	County	Ongoing	Completed & Ongoing
Emergency Services								
ES-1	Develop a drought council to implement an emergency response plan for the County	DR	Moderate	Little to no cost	To be determined	County EMA	N/A	Deferred—No Drought Council
ES-2	Identify and implement automated mass notification/warning system County wide	All Hazards	High	Grants, BRIC, HMGP	\$15,000-\$20,000 Annually	County & Municipalities	Ongoing	Ongoing
Structural Projects								
SP-1	Flood Elevations	FL	Medium	Grants, BRIC, HMGP	N/A	County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Partner with various stakeholder groups to develop an all-hazard public outreach and education program.	Multiple	High	Little to no Cost, MEMA	To be Determined	County	Ongoing	Completed & Ongoing
FL = Flood TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards P = Pandemic HW = High Winds RH = Roadway Hazards TT = Transportation and Technological Hazards CH = Civil Hazards HU = Hurricane County EMA = Jones County Emergency Management Agency County BOS = Jones County Board of Supervisors								
City of Laurel Mitigation Action Plan								

Action #	Description	Hazard Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Coordinate a floodplain management council with representatives from each of the participating jurisdictions. Conduct meetings to educate and develop a floodplain management program that will address future development and administration of a floodplain program.	Multiple	Moderate	Little to no cost	To be determined	County	Ongoing	Completed & Ongoing
P-2	Evaluate existing land-use studies and determine if any changes need to be made to address land-use in the new designated floodplain areas.	Multiple	High	Local Budget and FMA	To be determined	County	Ongoing	Ongoing
P-3	Assign data collection of each disaster/weather event countywide. This process will aid community leaders in assessing needs as an ongoing process.	Multiple	Moderate	Local Budget and FMA	To be determined	County EMA	Annual	Completed & Ongoing
P-4	Conduct a study throughout the county identifying storm water issues and determine areas that need improvement. Issues include physical and regulatory interventions.	Multiple	Moderate	CDBD, Grants, BRIC, HMGP Local	\$150,000	County BOS	3-5 years	Ongoing
P-5	Continue to enforce building codes and exceed the standards when proven cost-effective to withstand higher wind forces that could be delivered by a natural disaster. Develop and training program for city employees	Multiple	Moderate	Local Funds	\$20,000	Municipalities	Ongoing	Ongoing
Property Protection								
PP-1	Upon receipt of the new floodplain maps, review repetitive loss structures and implement a plan to complete the acquisition process.	FL	Moderate	FMA	To be determined	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Evaluate streams and identify potential projects to mitigate stream bank restoration.	FL	Moderate	Grants, BRIC, HMGP	To be determined	County	Ongoing	Completed & Ongoing
Emergency Services								
ES-1	Develop a drought council to implement an emergency response plan for the County	DR	Moderate	Little to no cost	To be determined	County EMA	N/A	Deferred—No Drought Council
ES-2	Identify and implement automated mass notification/warning system County wide	All Hazards	High	TBD	\$15,000-\$20,000 Annually	County & Municipalities	Ongoing	Ongoing
Structural Projects								
SP-1	Flood Elevations	FL	Medium	Grants, BRIC, HMGP	N/A	County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Partner with various stakeholder groups to develop an all-hazard public outreach and education program.	Multiple	High	Little to no cost	To be Determined	County	Ongoing	Completed & Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds RH = Roadway Hazards TT = Transportation and Technological Hazards CH = Civil Hazards P = Pandemic County EMA = Jones County Emergency Management Agency County BOS = Jones County Board of Supervisors								
Town of Sandersville Mitigation Action Plan								

Action #	Description	Hazard Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Coordinate a floodplain management council with representatives from each of the participating jurisdictions. Conduct meetings to educate and develop a floodplain management program that will address future development and administration of a floodplain program.	Multiple	Moderate	Little to no Cost	To be determined	County	Ongoing	Completed & Ongoing
P-2	Evaluate existing land-use studies and determine if any changes need to be made to address land-use in the new designated floodplain areas.	Multiple	High	Local Budget and FMA	To be determined	County	Ongoing	Ongoing
P-3	Assign data collection of each disaster/weather event countywide. This process will aid community leaders in assessing needs as an ongoing process.	Multiple	Moderate	Local Budget and FMA	To be determined	County EMA	Annual	Completed & Ongoing
P-4	Conduct a study throughout the county identifying storm water issues and determine areas that need improvement. Issues include physical and regulatory interventions.	Multiple	Moderate	CDBD, Grants, BRIC, HMGP Local	\$150,000	County BOS	3-5 years	Ongoing
P-5	Continue to enforce building codes and exceed the standards when proven cost-effective to withstand higher wind forces that could be delivered by a natural disaster. Develop and training program for city employees	Multiple	Moderate	Local Funds	\$20,000	Municipalities	Ongoing	Ongoing
Property Protection								
PP-1	Upon receipt of the new floodplain maps, review repetitive loss structures and implement a plan to complete the acquisition process.	FL	Moderate	Grants, BRIC, HMGP, HMA	To be determined	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Evaluate streams and identify potential projects to mitigate stream bank restoration.	FL	Moderate	Grants, BRIC, HMGP	To be determined	County	Ongoing	Completed & Ongoing
Emergency Services								
ES-1	Develop a drought council to implement an emergency response plan for the County	DR	Moderate	Little to no cost	To be determined	County EMA	N/A	Deferred—No Drought Council
ES-2	Identify and implement automated mass notification/warning system County wide	All Hazards	High	Grants, BRIC, HMGP	\$15,000-\$20,000 Annually	County & Municipalities	Ongoing	Ongoing
Structural Projects								
SP-1	Flood Elevations	FL	Medium	Grants, BRIC, HMGP	N/A	County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Partner with various stakeholder groups to develop an all-hazard public outreach and education program.	Multiple	High	Little to no cost, MEMA	To be Determined	County	Ongoing	Completed & Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds RH = Roadway Hazards TT = Transportation and Technological Hazards CH = Civil Hazards P = Pandemic County EMA = Jones County Emergency Management Agency County BOS = Jones County Board of Supervisors								
Town of Soso Mitigation Action Plan								

Action #	Description	Hazard Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Coordinate a floodplain management council with representatives from each of the participating jurisdictions. Conduct meetings to educate and develop a floodplain management program that will address future development and administration of a floodplain program.	Multiple	Moderate	Little to no cost	To be determined	County	Ongoing	Completed & Ongoing
P-2	Evaluate existing land-use studies and determine if any changes need to be made to address land-use in the new designated floodplain areas.	Multiple	High	Local Budget and FMA	To be determined	County	Ongoing	Ongoing
P-3	Assign data collection of each disaster/weather event countywide. This process will aid community leaders in assessing needs as an ongoing process.	Multiple	Moderate	Local Budget and FMA	To be determined	County Emergency Manag. Agency	Annual	Completed & Ongoing
P-4	Conduct a study throughout the county identifying storm water issues and determine areas that need improvement. Issues include physical and regulatory interventions.	Multiple	Moderate	CDBD, Grants, BRIC, HMGP, Local	\$150,000	County BOS	3-5 years	Ongoing
P-5	Continue to enforce building codes and exceed the standards when proven cost-effective to withstand higher wind forces that could be delivered by a natural disaster. Develop and training program for city employees	Multiple	Moderate	Local Funds	\$20,000	Municipalities	Ongoing	Ongoing
Property Protection								
PP-1	Upon receipt of the new floodplain maps, review repetitive loss structures and implement a plan to complete the acquisition process.	FL	Moderate	Grants, BRIC, HMGP, FMA	To be determined	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Evaluate streams and identify potential projects to mitigate stream bank restoration.	FL	Moderate	Grants, BRIC, HMGP	To be determined	County	Ongoing	Completed & Ongoing
Emergency Services								
ES-1	Develop a drought council to implement an emergency response plan for the County	DR	Moderate	Little to no cost	To be determined	County EMA	N/A	Deferred—No Drought Council
ES-2	Identify and implement automated mass notification/warning system County wide	All Hazards	High	Grants, BRIC, HMGP	\$15,000-\$20,000 Annually	County & Municipalities	Ongoing	Ongoing
Structural Projects								
SP-1	Flood Elevations	FL	Medium	Grants, BRIC, HMGP	N/A	County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Partner with various stakeholder groups to develop an all-hazard public outreach and education program.	Multiple	High	Little to no cost, MEMA	To be Determined	County	Ongoing	Completed & Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds RH = Roadway Hazards TT = Transportation and Technological Hazards CH = Civil Hazards P = Pandemic <u>County EMA</u> = Jones County Emergency Management Agency <u>County BOS</u> = Jones County Board of Supervisors								

Annex F

Marion County

This annex includes jurisdiction-specific information for Marion County and its participating municipalities. It consists of the following five subsections:

- ★ F.1 Marion County Community Profile
- ★ F.2 Marion County Risk Assessment
- ★ F.3 Marion County Vulnerability Assessment
- ★ F.4 Marion County Capability Assessment
- ★ F.5 Marion County Mitigation Strategy

F.1 MARION COUNTY COMMUNITY PROFILE

F.1.1 Geography and the Environment

Marion County is located in south central Mississippi. It comprises one city, the City of Columbia, as well as many small unincorporated communities. An orientation map is provided as **Figure F.1**.

The county is rural in nature and consists of dense pine, clay canyons, and cypress swamps. The total area of the county is 549 square miles, 6 square miles of which is water area.

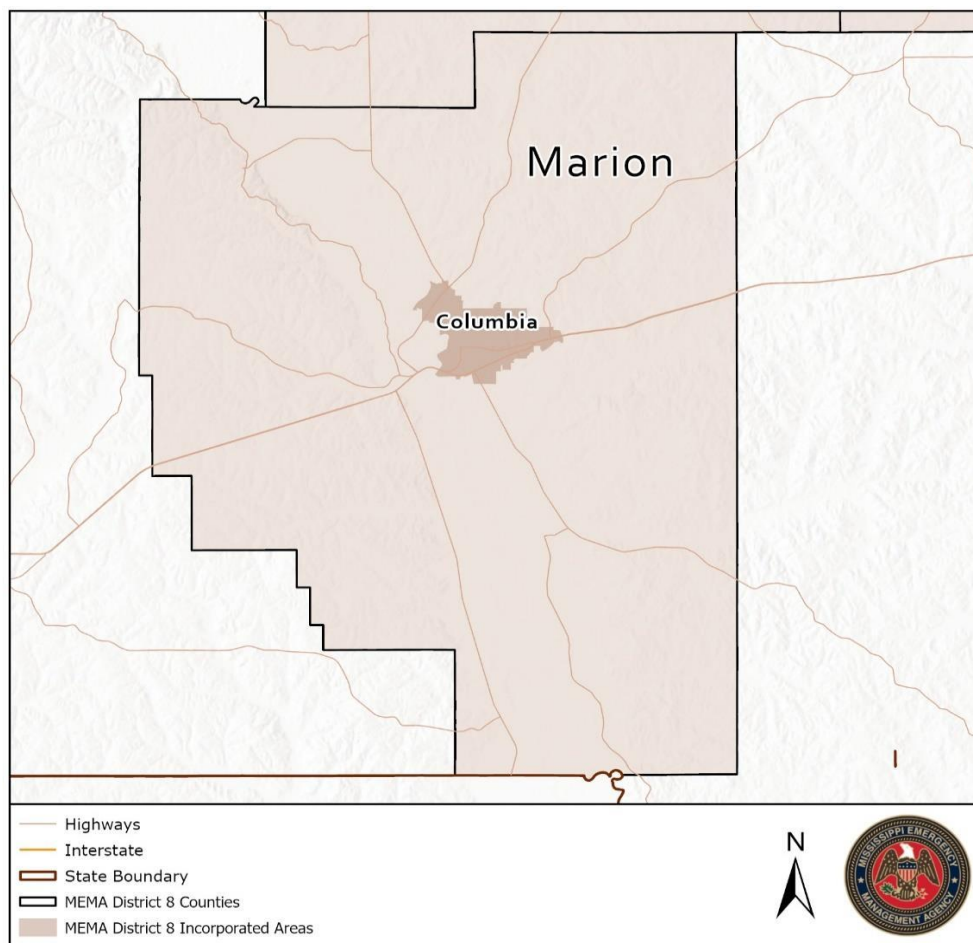
In Marion County, the summers are long, hot, and oppressive; the winters are short and cold; and it is wet and partly cloudy year-round. Over the course of the year, the temperature typically varies from 36°F to 92°F and is rarely below 30°F or above 97°F.

The hot season lasts for 5 months, from May through September, with an average daily high temperature above 85°F. The hottest day of the year is August 9, with an average high of 92°F and low of 71°F. The cool season lasts for 4 months, from November through February, with an average daily high temperature below 65°F. The coldest day of the year is January 17, with an average low of 36°F and high of 60°F.

Rain falls throughout the year in Marion County. The most rain falls during the 31 days centered around February 14, with an average total accumulation of 5.7 inches. The least rain falls around October 4, with an average total accumulation of 3.1 inches.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	60	63	71	78	85	90	92	92	88	80	70	61
Average Lows	36	40	47	53	62	69	71	71	66	54	45	38
Average Rainfall	6.35 in	5.67 in	5.65 in	5.25 in	4.92 in	5.46 in	5.31 in	4.79 in	3.08 in	3.91 in	4.38 in	5.5 in

FIGURE F.1: MARION COUNTY ORIENTATION MAP



F.1.2 Population and Demographics

According to the 2020 Census, Marion County has a population of 24,441 people. The county has seen almost 10% decline between 2010 and 2020, and the population density is 45.1 people per square mile. The decline continues. Per the Census Reports, in 2023, Marion County had a population of 24,224, which is a 0.9 percent decline. This decline could lower the vulnerability of the population. The household income is \$38,399, which grew 19 percent. Population counts from the US Census Bureau for 2010, and 2020 for the county and both of the participating jurisdictions are presented in **Table F.1**. Estimates for 2023 are also included.

TABLE F.1: POPULATION COUNTS FOR MARION COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2023 Estimate
Marion County	27,088	24,441	-9.77%	24,224
Columbia	6,582	5,864	-10.9	5,886

Source: US Census Bureau

Based on the 2020 Census, the median age of residents of Marion County is 38 years, which by Census estimates rose to 40 years. The racial characteristics of the county are presented in **Table F.2** and will remain the same as the census data has not been officially updated. Due to the population decrease, the racial characteristics differ slightly. The population is 32 percent black or African American persons and 2% percent Hispanic and Latino. Whites make up the majority of the population in the county, accounting for 66 percent of the population.

TABLE F.2: DEMOGRAPHICS OF MARION COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Marion County	66%	32%	0%	0.5%	2%
Columbia	53%	43%	0.2%	2%	2%

Source: US Census Bureau

TABLE F.3: AVERAGE INCOME AND HEALTH IN MARION COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below The Poverty Level
Marion County	22%	16%	\$38,399	23%
Columbia	25%	13%	\$29,470	27%

Source: US Census Bureau

F.1.3 Housing

According to the 2020 US Census, there are 11,080 housing units in Marion County, the majority of which are single family homes or mobile homes. Per 2023 estimates, the total number of housing units has not changed. The median home value is \$104,100, which also increased by at least 24.6% percent. Housing information for the county and town is presented in **Table F.4**.

TABLE F.4: HOUSING CHARACTERISTICS OF MARION COUNTY

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2020)	Median Home Value (2020)
Marion County	11,080	\$78,500	11,080	\$104,100
Columbia	2,815	\$82,800	2,650	\$95,200

Source: Census Bureau

F.1.4 Infrastructure

TRANSPORTATION

Traveling through the City of Columbia in Marion County, the primary transportation route is US Highway 98. The highway provides direct access to the city of Hattiesburg to the east and the City of McComb to the west. State Highways 13, 35, and 43 provide the county with adequate access to the north and south.

Commercial air transportation is available at the Hattiesburg-Laurel Regional Airport, less than 40 miles from Columbia. International airports in Jackson, Gulfport, and New Orleans are all within a 100-mile radius of Columbia.

Marion County is also served by the Canadian National Railroad, but there is no passenger service offered at this time.

UTILITIES

Electrical power in Marion County is provided by several sources, including Mississippi Power Company.

Water and sewer service is provided to residents of Columbia with 3 water storage tanks, 16 lift stations, and treatment lagoons. There is an additional water storage tank and four lift stations serving the unincorporated community of Foxworth and funding from Rural Development was used to install a sewer system in Lampton, another unincorporated community south of Columbia. The water system in Marion County consists of 17 storage tanks. However, there is no centralized sewage treatment in the county and septic tanks are the most common type of sewer system.

COMMUNITY FACILITIES

There are a number of buildings and community facilities located throughout Marion County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are 7 fire stations, 3 police stations, and 14 public schools located within the county.

There is one hospital located in Marion County. Marion General Hospital is a 49-bed medical-surgical hospital located in the City of Collins.

Marion County offers a variety of recreational activities, most of which can be enjoyed nearly year-round. In addition to area lakes, campgrounds, hunting sites, playgrounds, sports fields, and picnic areas, the county features several family friendly recreation sites including Columbia Water Park, Columbia City Park, and the Columbia Exposition Center.

F.1.5 Land Use

Many areas of Marion County are undeveloped or sparsely developed due to the county's location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region's population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

F.1.6 Employment and Industry

According to the Mississippi Employment Security Commission, in 2023 Marion County had an average annual employment of 8,220 workers and an average unemployment rate of 5.1 percent. In 2023, according to the MESC, Government Agencies employed 15.7 percent of the workforce. Retail Trade was the second largest industry, employing (14%) of workers, and Health Care and Social Assistance followed closely behind (13.4%). The average annual wage in Marion County was \$38,399.

F.2 MARION COUNTY RISK ASSESSMENT

This subsection includes hazard profiles for each of the significant hazards identified in *Section 4: Hazard Identification* as they pertain to Marion County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in *Section 5: Hazard Profiles*.

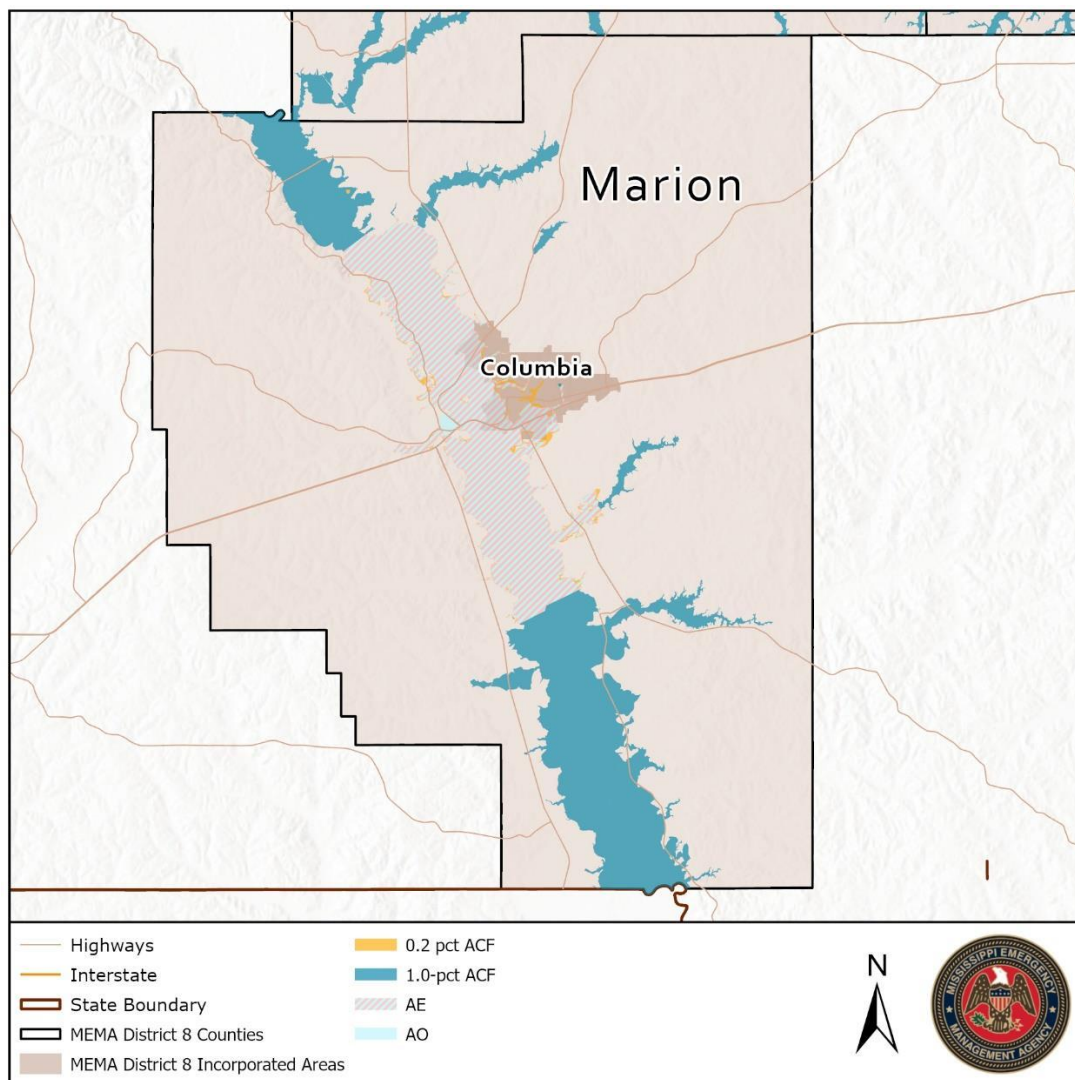
F.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Marion County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain). According to GIS analysis, of the 551 square miles that make up Marion County, there are 83 square miles of land in zones A and AE (1-percent annual chance floodplain/100-year floodplain) and 2 square miles of land in the 0.2-percent annual chance floodplain (500-year floodplain).

These flood zone values account for 15.4 percent of the total land area in Marion County. It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood-related losses often do occur outside of delineated special flood hazard areas.

FIGURE F.2: SPECIAL FLOOD HAZARD AREAS IN MARION COUNTY



HISTORICAL OCCURRENCES

Floods resulted in Thirteen disaster declarations in Marion County in 1972, 1973, 1974, 1979, 1980, 1983, 1990, 2003, 2013, 2016, 2018, and twice in 2020. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National Centers for Environmental Information reported a total of 61 events in Marion County since 2000. A summary of these events is presented in **Table F.5**. These events accounted for almost \$10.6 million in property damage in the county. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table F.6 & F.7**.

TABLE F.5: SUMMARY OF FLOOD OCCURRENCES IN MARION COUNTY

LOCATION	Number of Occurrences	Deaths/Injuries	Property Damage	Crop Damage
<i>Columbia</i>	32	0/0	\$1,736,000	\$0
<i>Unincorporated Area</i>	29	0/0	\$8,791,000	\$0
Marion County Total:	61	0/0	\$10,527,000	\$0

Source: NCED/NOAA

TABLE F.6: HISTORICAL FLOOD EVENTS IN MARION COUNTY

Location	Date	Type	Deaths	Injuries	Property Damage
The City of Columbia					
<i>Columbia</i>	11/9/2000	Flash Flood	0	0	\$5,000
<i>Columbia</i>	8/12/2001	Flash Flood	0	0	\$20,000
<i>Columbia</i>	9/26/2002	Flash Flood	0	0	\$2,000
<i>Columbia</i>	6/30/2003	Flash Flood	0	0	\$2,000
<i>Columbia</i>	2/23/2004	Flash Flood	0	0	\$10,000
<i>Columbia</i>	10/17/2006	Flash Flood	0	0	\$300,000
<i>Columbia</i>	8/25/2007	Flash Flood	0	0	\$50,000
<i>Columbia</i>	3/27/2009	Flash Flood	0	0	\$300,000
<i>Columbia</i>	12/14/2009	Flash Flood	0	0	\$60,000
<i>Columbia</i>	7/25/2010	Flash Flood	0	0	\$2,000
<i>Columbia</i>	3/8/2011	Flash Flood	0	0	\$25,000
<i>Columbia</i>	7/16/2011	Flash Flood	0	0	\$100,000
<i>Columbia</i>	9/4/2011	Flash Flood	0	0	\$3,000
<i>Columbia</i>	9/5/2011	Flash Flood	0	0	\$5,000
<i>Columbia</i>	8/29/2012	Flash Flood	0	0	\$0
<i>Columbia</i>	4/14/2013	Flash Flood	0	0	\$0
<i>Columbia</i>	8/13/2013	Flash Flood	0	0	\$25,000
<i>Columbia</i>	9/21/2013	Flash Flood	0	0	\$0
<i>Columbia</i>	1/3/2015	Flash Flood	0	0	\$5,000
<i>Columbia</i>	7/1/2015	Flash Flood	0	0	\$1,000
<i>Columbia</i>	3/10/2016	Flash Flood	0	0	\$55,000
<i>Columbia</i>	3/11/2016	Flash Flood	0	0	\$15,000
<i>Columbia</i>	4/3/2017	Flash Flood	0	0	\$10,000
<i>Columbia</i>	8/23/2017	Flash Flood	0	0	\$7,000
<i>Columbia</i>	7/7/2018	Flash Flood	0	0	\$45,000
<i>Columbia</i>	12/27/2018	Flash Flood	0	0	\$507,000

<i>Columbia</i>	7/8/2020	Flash Flood	0	0	\$2,000
<i>Columbia</i>	2/11/2021	Flash Flood	0	0	\$95,000
<i>Columbia</i>	4/10/2021	Flash Flood	0	0	\$3,000
<i>Columbia</i>	3/18/2022	Flash Flood	0	0	\$2,000
<i>Columbia</i>	4/5/2022	Flash Flood	0	0	\$5,000
<i>Columbia</i>	1/24/2024	Flash Flood	0	0	\$75,000
Unincorporated Area in Marion County					
<i>County Wide</i>	3/2/2001	Flash Flood	0	0	\$0
<i>County Wide</i>	3/3/2001	Flash Flood	0	0	\$0
<i>County Wide</i>	6/6/2001	Flash Flood	0	0	\$5,000
<i>North Part of the County</i>	6/8/2001	Flash Flood	0	0	\$0
<i>County Wide</i>	8/5/2002	Flash Flood	0	0	\$7,000
<i>County Wide</i>	2/21/2003	Flash Flood	0	0	\$2,000
<i>Kokomo</i>	7/2/2003	Flash Flood	0	0	\$50,000
<i>East Part of the County</i>	2/25/2004	Flash Flood	0	0	\$10,000
<i>Pinebur</i>	3/12/2004	Flash Flood	0	0	\$2,500,000
<i>North Part of the County</i>	3/31/2005	Flash Flood	0	0	\$150,000
<i>County Wide</i>	4/1/2005	Flash Flood	0	0	\$100,000
<i>East Part of the County</i>	8/29/2005	Flash Flood	0	0	\$100,000
<i>Fortenberry</i>	5/26/2008	Flash Flood	0	0	\$5,000,000
<i>Kokomo</i>	4/12/2009	Flash Flood	0	0	\$25,000
<i>Goss</i>	10/15/2009	Flash Flood	0	0	\$5,000
<i>Fortenberry</i>	8/15/2010	Flash Flood	0	0	\$5,000
<i>Morgantown</i>	12/26/2011	Flash Flood	0	0	\$3,000
<i>Kokomo & Morgantown</i>	2/18/2012	Flash Flood	0	0	\$500,000
<i>Hub</i>	3/21/2012	Flash Flood	0	0	\$0
<i>Fortenberry</i>	8/29/2012	Flash Flood	0	0	\$185,000
<i>Cheraw</i>	2/20/2014	Flash Flood	0	0	\$15,000
<i>Fortenberry</i>	3/10/2016	Flash Flood	0	0	\$10,000
<i>Pinebur & Lovelace</i>	3/11/2016	Flash Flood	0	0	\$70,000
<i>Hub</i>	1/21/2017	Flash Flood	0	0	\$3,000
<i>Sandy Hook, & Saxton</i>	12/27/2018	Flash Flood	0	0	\$12,000
<i>Pinebure</i>	12/28/2018	Flood	0	0	\$5,000
<i>Lovelace</i>	7/4/2020	Flash Flood	0	0	\$5,000
<i>Pinebur</i>	7/8/2020	Flash Flood	0	0	\$1,000
<i>Hub & Fortenberry</i>	2/11/2021	Flash Flood	0	0	\$23,000

Source: NCED/NOAA

TABLE F.7: EXTENT: FLOOD EVENTS IN MARION COUNTY SINCE THE LAST UPDATE

Marion County: \$211,000

Location	Date	Loss	Cause	Impact
Columbia & County	7/4/2020	\$5,000	An area of intense and slower moving storms produced some flash flooding around the Columbia area in southeast Mississippi.	Heavy rain caused flash flooding on several roads on the western side of downtown Columbia and toward the Foxworth area.
Columbia & County	7/8/2020	\$3,000	Scattered thunderstorms developed in an unstable air mass across Mississippi during the late morning of July 8th.	• Water blocked a portion of South High School Road in Columbia. • Water blocked part of Pine Burr Road near MS Highway 13 South.
Columbia	2/11/2021	\$118,000	Flash flooding occurred due to heavy rain.	• Flash flooding occurred around Columbia. Flooding occurred at Eagle Day Avenue and Highway 98. A furniture store in this area had water enter the building. Flooding occurred at Pineview Drive and at Meadowood Drive. In both of these locations, water entered a home. Multiple city streets were flooded in Columbia as well as parking lots under water and water entered a home. Flash flooding reported at Meadowood Road in Downtown Columbia. Flash flooding reported at Pineview Drive. Water began entering a residential home. Multiple city streets flooded along with parking lots under water. Water is also inside one home of a special needs person. Fire department and the police deployed sandbags. • Portions of Columbia Purvis Road were underwater. A vehicle got stuck and required a water rescue. • A portion of Highway 13 was underwater in the county.
Columbia	4/10/2021	\$3,000	Showers and thunderstorms developed in association with a frontal system moving through the region.	Water covered roads in Columbia.
Columbia	3/18/2022	\$2,000	Showers and thunderstorms developed in the warm, moist airmass south of a warm front.	Multiple streets were flooded in Columbia, some were closed.
Columbia	4/5/2022	\$5,000	A low-pressure system moving east along the Arkansas Louisiana border helped to organize a line of severe thunderstorms early in the morning of April 5th.	Several roads were flooded in Columbia.
Columbia	1/24/2024	\$75,000	With an upper-level trough of low pressure situated over Central Plains and a very moist air mass extending north through the Mississippi River Valley, training showers and thunderstorms produced heavy rain and flooding over parts of Mississippi.	Flood prone roads were covered with 4 to 8 inches of water, and other roads were closed with cars stalled in floodwaters.

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES

Recently, FEMA issued a directive that prevents states and/or state planners from receiving NFIP information such as rep loss or severe rep loss data directly from FEMA. The local jurisdictions must request the information from FEMA and share it with the state planners. The information was requested from the jurisdictions on multiple occasions, but some did not provide the information. As a result, for continuity of information of the historical occurrences along with the corresponding damage amounts are unknown, unless the Jurisdiction requests the information directly from FEMA and shares it with the committee. The decision was made to leave the existing information in the plan if the Jurisdiction did not provide the requested information and to include the updated information for local jurisdictions that supplied it.

According to FEMA flood insurance policy records as of March 2023, there have been 551 flood losses reported in Marion County through the National Flood Insurance Program (NFIP) since 1978, totaling nearly \$6 million in claims payments. A summary of these figures for the county is provided in **Table F.8**.

It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Marion County were either uninsured, denied claims payment, or not reported.

REPETITIVE LOSS PROPERTIES

No updates to this section can be provided at this time. Information normally used to update this section is not currently accessible. As a result, this information will remain the same for historical purposes.

As of May 2023, there are 91 non-mitigated repetitive loss properties located in Marion County, which accounted for 282 losses and more than \$3.5 million in claims payments under the NFIP. The average claim amount for these properties is \$12,638. Of the 91 properties, 25 are single family residential, 6 are assumed condominium, and 16 are non-residential. Without mitigation these properties will likely continue to experience flood losses. **Table F.8** presents detailed information on repetitive loss properties and NFIP claims and policies for Marion County.

TABLE F.8: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSSES IN MARION COUNTY

Location	Flood Losses	Claim Payments	Repetitive Loss Properties	Number of Properties	Number of Losses	Total Payments	Average Payments
Columbia	303	\$3,612,752		47	139	\$2,027,858	\$14,589
Unincorporated Area	248	\$2,337,509		44	143	\$1,536,092	\$10,742
Marion County Total:	551	\$5,950,261		91	282	\$3,563,949	\$12,638

Source: FEMA, NFIP

PROBABILITY OF FUTURE OCCURRENCES

Due to the unpredictable nature of this hazard, flood events will remain a threat in Marion County, and the probability of future occurrences will remain highly likely (100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the county. For example, the central portion of the county has more floodplain and thus a higher risk of flood than the eastern and western portions of the county. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

F.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Erosion in Marion County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Marion County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Marion County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

Marion County has a flood damage prevention ordinance that includes measures to limit erosion, such as restricting uses that result in damaging erosion. Such actions will continue to be implemented as necessary throughout the county.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Marion County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

If the climate continues to change as scientists predict, the higher intensity and magnitude of storms and the increasing drought and high heat days, can lead to erosion in areas that have not been impacted by erosion in the past.

As the climate continues to change, the chance of heavy rain leading to flash flooding could also increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding cascading effects are possible such as erosion of soil from the ground, under/ around trees, and under roads. This can lead to falling trees, power outages, and road damage.

F.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

According to the Mississippi Division of Environmental Quality, there are two high hazard dams in Marion County. **Figure F.3** shows the location of each of these high hazard dams and **Table F.9** lists them by name. The status of dams for this section remains the same. According to a consensus of local government officials and the Regional Hazard Mitigation Council, a majority of these dams would not pose a major threat in a breach or failure occurrence.

FIGURE F.3: MARION COUNTY HIGH HAZARD DAM LOCATIONS

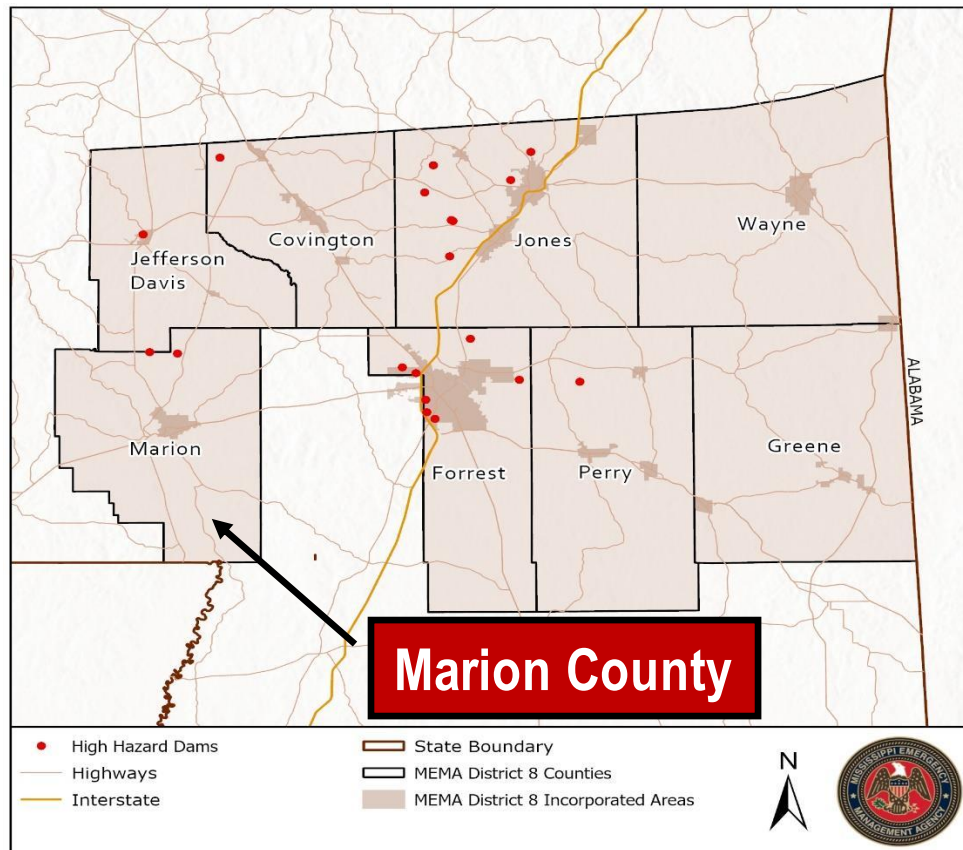


TABLE F.8: MARION COUNTY HIGH HAZARD DAMS

Hazard Potential	Dam Name
High	<i>Holiday Creek WS Street 4 Dam</i>
High	<i>Holiday Creek WS Street 3 Dam</i>

HISTORICAL OCCURRENCES

There is no record of dam breaches in Marion County. However, Big Bay Dam in Lamar County breached in 2004 and resulted in damages in Marion County. Damages in Marion County included destruction of 1 mobile home; major damage to 14 homes, 2 mobile homes, Pine Burr Church, and Pine Burr Volunteer Fire Department; and minor damage to 10 homes, 3 mobile homes, and Hub Chapel Church. Further, several breach scenarios in the county could be catastrophic.

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

F.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local winter weather. Marion County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of ten recorded winter storm events in Marion County since 2000. These events resulted in over \$700,000 in damages. Detailed information on the recorded winter storm events can be found in **Table F.10**.

TABLE F.10: HISTORICAL WINTER STORM IMPACTS IN MARION COUNTY

Date	Type	Death/ Injuries	Damage
1/1/2002	Heavy Snow	0/0	\$5,000
1/19/2008	Heavy Snow	0/0	\$0
12/11/2008	Heavy Snow	0/0	\$0
12/4/2009	Heavy Snow	0/0	\$0
1/1/2010	Cold/Wind Chill	0/0	\$250,000
2/11/2010	Heavy Snow	0/0	\$300,000
1/9/2011	Winter Weather	0/0	\$0
12/8/2017	Heavy Snow	0/0	\$50,000
1/16/2018	Winter Weather	0/0	\$0
2/15/2021	Ice Storm	0/0	\$100,000
Marion County Total: 10		0/0	\$705,000

Source: NCED/NOAA

There have been a couple of severe winter weather events in Marion County. The text below describes one of the major events and associated impacts on the county. Similar impacts can be expected with severe winter weather.

December 10, 2008—Light sleet changed over to light snow flurries by 610 am. Columbia measured a half inch as of 632 am. As of 915 am Columbia had measured around two inches of snow on the ground. There was also some power outages reported with some fallen limbs. By 11 am an estimated 4 to 5 inches of snow was reported by the Columbia police department. As of 1230 pm reports of 3 to 6 inches was noted across the county. Snowfall intensities decreased after 1 pm. The snow exited the region by 430 pm.

January 2010—The first ten days of 2010 were the coldest first ten days of any year on record with an average temperature of around 29 degrees, which is around 14 to 16 degrees below normal. This outbreak will not be remembered for any bitterly cold temperatures, it will be remembered for the prolonged period of cold conditions and spans of time below freezing. Due to the duration of the cold, a great deal of damage occurred to the water line infrastructure around the region. The issues from the hard freeze were as follows: water line breaks, and frozen water pipes to homes, especially rural homes; wells freezing up; and water valves being stuck. Due to all the water line breaks, flooding of buildings and homes occurred. This event also caused 3 fatalities due to hypothermia. One occurred in Hinds County and two in Lauderdale County.

February 11, 2010—Between 2 and 4 inches of snow fell in Marion County. Some roads were covered with snow, and some bridges were iced over.

February 15, 2021—Freezing rain fell across the county. Accumulations around one quarter of an inch occurred in the northwest part of the county with lighter accumulations elsewhere. There was also sleet accumulation of around one tenth of an inch. Icing occurred in the trees and on some power lines. Numerous limbs were down and resulted in power outages.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Marion County. According to historical information, the annual probability is possible (between 1 and 10 percent).

F.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Marion County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Marion County had drought levels (including abnormally dry) in all of the last twenty-four years (2000-2024). Table f.11 shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE F. 11: HISTORICAL DROUGHT OCCURRENCES IN MARION COUNTY					
Abnormally Dry	Moderate Drought	Severe Drought	Extreme Drought	Exceptional Drought	
Location	Date	Injuries/Deaths	Property Damage	Crop Damage	Event/Severity
Marion County	10/1/2006	0/0	\$0	\$400,000	D3
Marion County	5/1/2007	0/0	\$0	\$200,000	D3
Marion County	6/1/2007	0/0	\$0	\$400,000	D4
Marion County	7/1/2007	0/0	\$40,000	\$0	D2
Marion County	10/6/2015	0/0	\$0	\$1,000	D3
Marion County	11/15/2016	0/0	\$0	\$50,000	D2
Marion County	8/1/2023	0/0	\$0	\$0	D2
Marion County	9/1/2023	0/0	\$0	\$0	D3
Marion County	10/1/2023	0/0	\$0	\$0	D4
Marion County	11/1/2023	0/0	\$0	\$275,000	D4
Total:	10	0/0	\$40,000	\$1,326,000	

Source: NCED/NOAA

There have been several severe winter weather events in Jefferson Davis County. The text below describes one of the major events and associated impacts on the county

October 2006—During a four-and-a-half-month period, from June to the middle of October, abnormally dry conditions prevailed across most of the Jackson, MS County Warning Area (CWA). Widespread drought conditions were reported across the area during this time period. The U.S. Drought Monitor classified the drought as extreme (D3) over Southeast Mississippi. Drought conditions in the region peaked in intensity during early August over this area. This drought caused approximately \$400 thousand in crop damage.

May to July 2007—During May, crops across the state were beginning to feel the impact of the very dry conditions. At that point, some damage to crops had occurred with only small losses to yields expected. Extended drought conditions would make conditions worse with more substantial crop damage/losses if no rain occurred into the month of June.

The month of June did not offer much rain as most of the forecast area saw less than 40% of the normal rainfall. If you would go back to the start of the drought, the portion of the forecast area under the drought has only seen 5 to 20% of the annual rainfall. Historical climate sites are running some 15 to 20 inches below normal for rainfall with deficits now higher than the yearly total. The quality of the crops has been affected as well due to the dry conditions.

The extreme to exceptional drought, which had gripped a large portion of the region since May, finally was reduced during the first and middle portion of July.

October 2015—Very dry conditions occurred over Central Mississippi during the summer months with severe to extreme drought conditions developing over the area by September and continuing into October.

November 2016—Dry conditions continued into November, which created continued stress on crops. The drought continued to get worse across the state through the month before some relief came in the form of showers and thunderstorms near the end of November. Very dry conditions continued into November, which resulted in an area of severe drought (D2). Crops were put under more stress from the dry and hot conditions.

August to November 2023—The combined effects of persistent above-normal temperatures and minimal precipitation starting in early July 2023 resulted in mounting drought impacts across portions of southwest and southern Mississippi. Through the month of August, D2 (Severe Drought) conditions, as depicted on the U.S. Drought Monitor, were common across areas generally from south and west of a line from Claiborne County through Marion County.

Drought conditions in Marion County continued during September at D3 (Extreme Drought) as depicted on the U.S. Drought Monitor.

In October soil moisture values continued to worsen through the month, with subsoil moisture values between 25 to 50 percent below normal for much of the affected area. This placed a severe stress on pastures for livestock and reduced the yield from row crops to end the growing season. Pine plantations and Christmas tree farms experienced severe losses especially among younger trees. Stream flows on creeks and rivers were reduced. Drought conditions in Marion County intensified from D3 (Extreme Drought) to D4 (Exceptional Drought) as depicted on the U.S. Drought Monitor.

Drought conditions in Marion County remained at D4 (Exceptional Drought) as depicted on the U.S. Drought Monitor during the month of November.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

July 2005—A five-day heat wave covered the area. Temperatures were consistently above 95 degrees. The agricultural industry was hit particularly hard in the cattle and catfish sectors. Water supply issues were encountered by cities and a burn ban was implemented due to the high fire risk.

August 2005—A heat wave covering the south began in mid-August and lasted about 10 days. High temperatures were consistently over 95 degrees and surpassed 100 degrees on some days. It was the first time since August 2000 that 100-degree temperatures reached the area.

July 2006—A short heat wave impacted most of the area temperatures in the 90s to around 100 for five straight days.

August 2007—A heat wave gripped most of the area with the warmest temperatures since 2000. It lasted from August 5th to the 16th.

August 2010—A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Marion County has a probability level of highly likely (100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude.

Heat Wave

Based on historical occurrence information, it is assumed that all of Marion County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could impact the effects on the counties' crops, economy, and population.

F.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2024, Marion County experiences an average of 47.6 wildfires annually which burn an average of 592 acres per year. The data indicates that most of these fires are small, averaging 12.4 acres per fire. **Table F.12** provides a summary of wildfire occurrences in Marion County since the last update, and **Table F.13** lists the number of reported wildfire occurrences in the county between the years 2010 and 2024.

TABLE F.12: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2024) *

Marion County	
Average Number of Fires per year	42.2
Average Number of Acres Burned per year	735.8
Average Number of Acres Burned per fire	17.44

Source: MS Forestry Commission

TABLE F.13: HISTORICAL WILDFIRE OCCURRENCES IN MARION COUNTY

Marion County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	46	128	39	38	83	28	32	30	31	19	12	38	62	80
Number of Acres Burned	265	895	198	402	638	171	1,200	475	364	96	124	1317	846	1296

Source: US Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Wildfire events will be an ongoing occurrence in Marion County. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to Marion County for future wildfire events is likely (a 10 and 100 percent annual probability).

If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact or wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

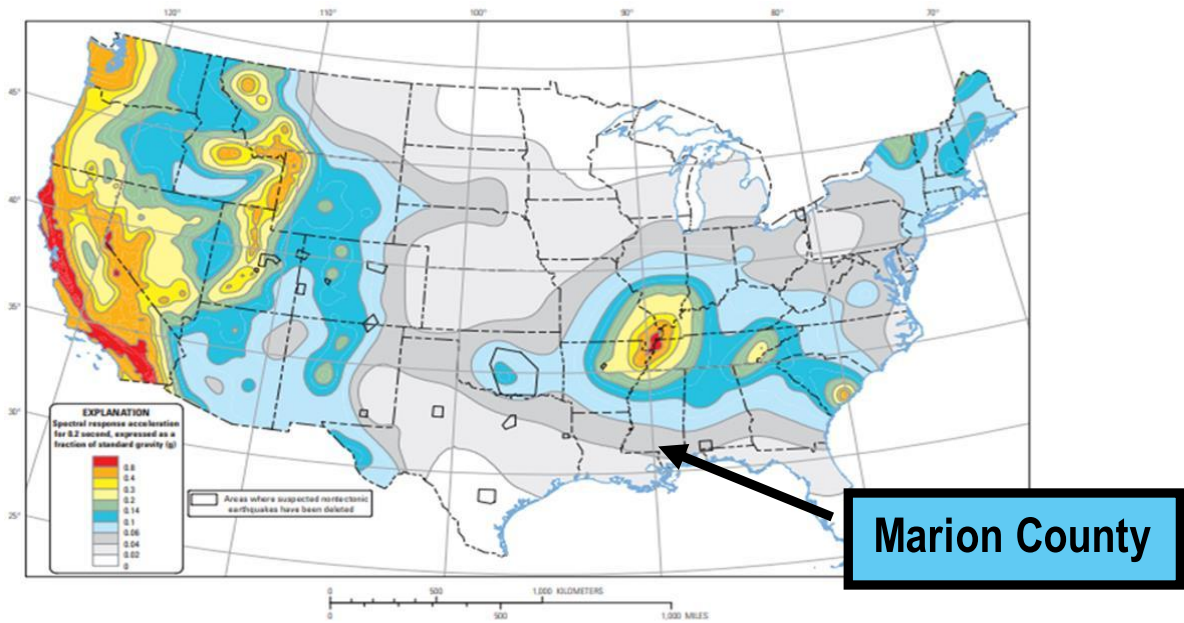
If the predicted increase in heavy rains occur it can also cause flooding and erosion, which can also make the area more susceptible to wildfires.

F.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure F.4 shows the intensity level associated with Marion County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, Marion County lies within an approximate zone of level “2” to “3” ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE F.4: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS



Source: USGS

HISTORICAL OCCURRENCES

No earthquakes are known to have affected Marion County since 1638. Table F.14 provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 and 2024.

TABLE F.14: SUMMARY OF SEISMIC ACTIVITY IN MARION COUNTY

Location	Date	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
Columbia	--	0	--	--
Unincorporated Area	--	0	--	--
Marion County Total:		0	--	--

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Marion County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

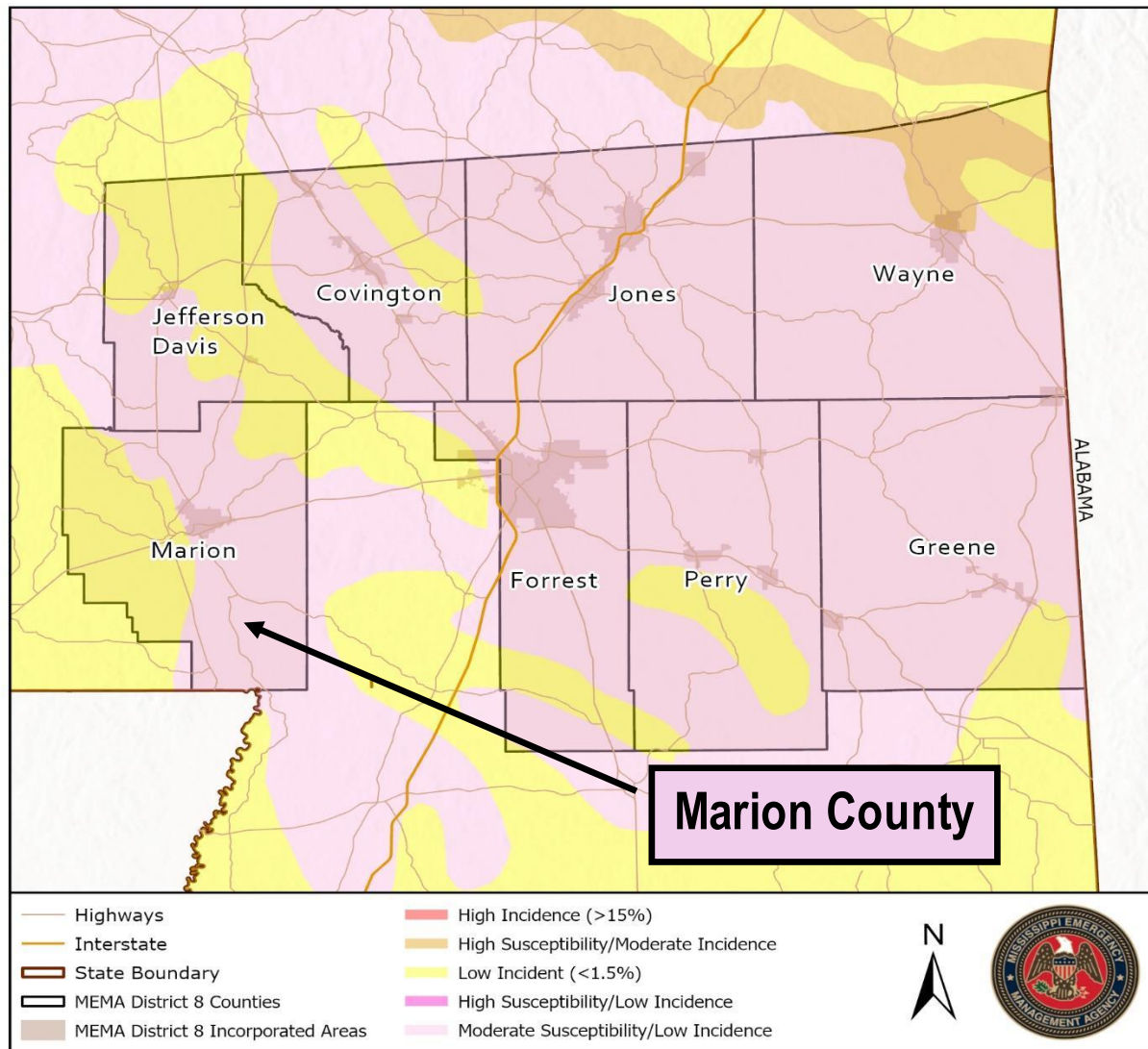
F.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. The most frequent and widespread damaging landslides in the U.S. are induced by prolonged or heavy rainfall. The majority of rainfall-induced landslides are shallow, small, and move quickly. Landslides are possible throughout Marion County.

According to **Figure F.5** below, the entire county falls under a Moderate Susceptibility/Low Incidence area (light pink) and Low Incidence (yellow). This indicates that less than 1.5 percent of the area is involved in land sliding. The areas in yellow are defined as low incidence and low susceptibility. The areas in light pink, however, indicate that a moderate susceptibility to land sliding activity is present. There are no changes with susceptibility to the landslide hazard since the last plan update.

FIGURE F.5: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF MARION COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Marion County. Landslide events typically occur in isolated areas.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that all areas in Marion County have a low landslide incidence rate. However, some areas are reported as having moderate susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Marion County have greater risk than others given factors such as steepness on slope and modification of slopes.

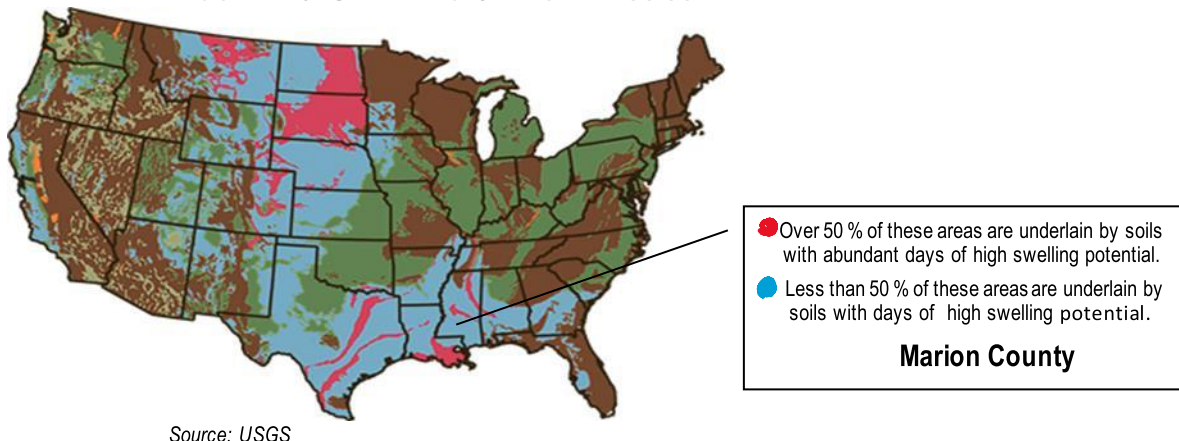
As the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

F.2.9 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Marion County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure F.6**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential.

FIGURE F.6: SWELLING CLAYS IN MISSISSIPPI



HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Marion County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

F.2.10 Hurricane and Tropical Storm

LOCATION AND SPATIAL EXTENT

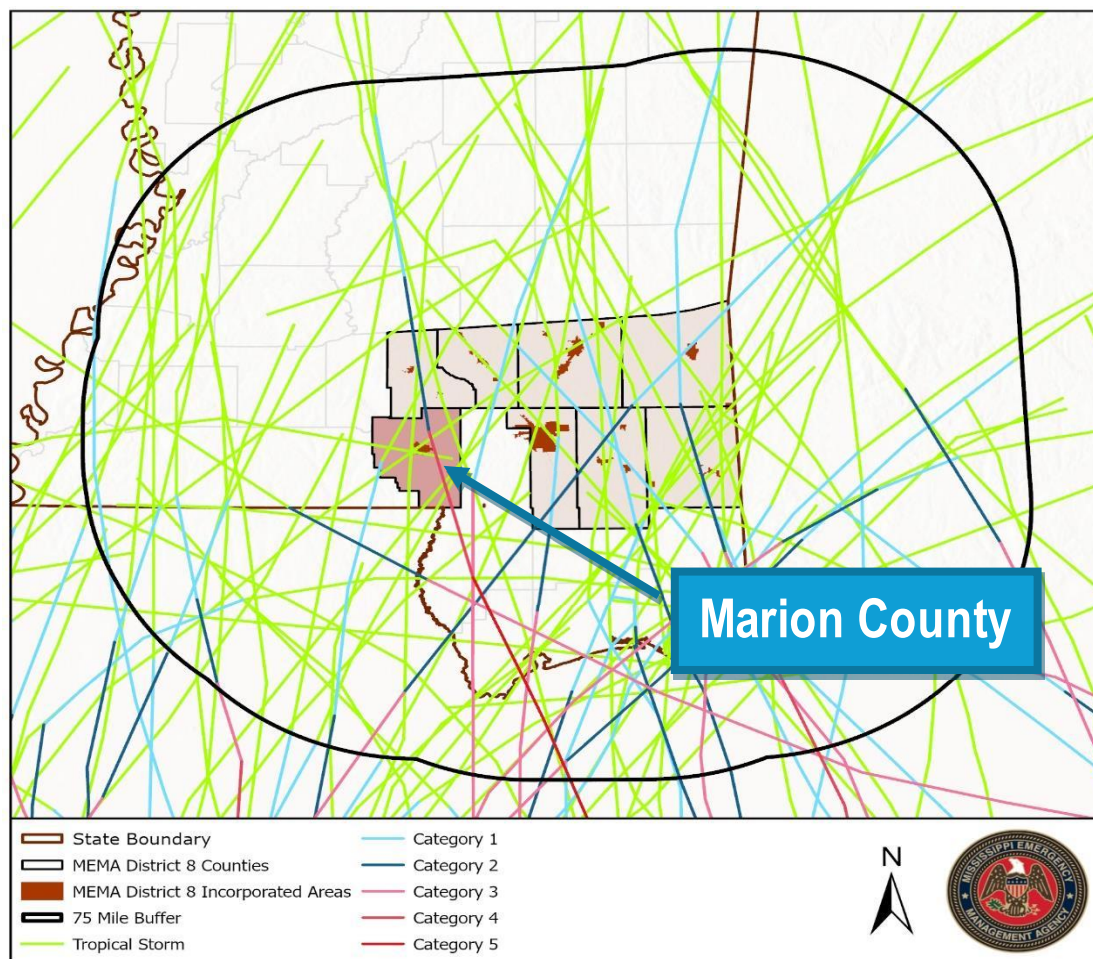
Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Marion County. All areas in Marion County are equally susceptible to hurricane and tropical storms.

HISTORICAL OCCURRENCES

According to the National Hurricane Center's historical storm track records, a total of 65 hurricanes have passed within 75 miles of the county since 1851. This includes 1 category 5 storm, 0 category 4 storms, 6 category 3 storms, 7 category 2 storms, 8 category 1 storms, and 43 tropical storms as shown in **Figure F.8**.

Of the recorded storm events, a total of eight tracks passed directly through the county including Hurricanes Camille (1969), Isidore (2002), and Bill (2003). All storms were tropical storms when they traversed the county except for two: 1915 Category 1 Unnamed Storm and 1969 Category 3 Hurricane Camille. **Table F.14** provides the detail for each storm that passed through the county including date of occurrence, name (if applicable), maximum wind speed (as recorded when traversing the county) and category of the storm based on the Saffir-Simpson Scale.

FIGURE F.8: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF MARION COUNTY



Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Katrina), 2008 (Hurricane Gustav), 2012 (Hurricane Isaac), and 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial damage in the area due to high winds and flooding.

TABLE F.14: HISTORICAL STORM TRACKS WITHIN 75 MILES OF MARION COUNTY (1850–2024)

Date of Occurrence	Storm Name	Maximum Wind Speed (mph)	Storm Category	Disaster Declaration	Property Damage	Crop Damage
10/7/1879	<i>Unnamed</i>	57	Tropical Storm	--	Unknown	Unknown
6/15/1886	<i>Unnamed</i>	40	Tropical Storm	--	Unknown	Unknown
9/8/1893	<i>Unnamed</i>	63	Tropical Storm	--	Unknown	Unknown
6/13/1912	<i>Unnamed</i>	57	Tropical Storm	--	Unknown	Unknown
9/30/1915	<i>Unnamed</i>	81	Category 1	--	Unknown	Unknown
8/18/1969	<i>Hurricane Camille</i>	130	Category 3	Yes, #271	Unknown	Unknown
9/25/1998	<i>Hurricane George</i>	Unknown	Tropical Storm	Yes, #1251	Unknown	Unknown
9/26/2002	<i>Hurricane Isidore</i>	63	Tropical Storm	No	\$0	\$0
6/30/2003	<i>Tropical Storm Bill</i>	52	Tropical Storm	No	\$0	\$0
9/16/2004	<i>Hurricane Ivan</i>	95	Category 1	Yes, #1550	\$93,750	\$31,300
8/29/2005	<i>Hurricane Katrina</i>	130	Category 3	Yes, #1604	\$300,000,000	\$65,000,000
9/24/2005	<i>Hurricane Rita</i>	40	Tropical Storm	No	\$10,000	\$10,000
9/1/2008	<i>Hurricane Gustav</i>	55	Tropical Storm	Yes, #1837	\$600,000	\$0
8/29/2012	<i>Hurricane Isaac</i>	50	Tropical Storm	Yes, # 4081	\$100,000	\$0
10/28/2020	<i>Hurricane Zeta</i>	37	Depression	No	\$30,000	\$0
8/30/2021	<i>Hurricane Ida</i>	45	Tropical Storm	Yes, #4626	\$30,000	\$0
9/12/2024	<i>Hurricane Francine</i>	40	Tropical Storm	No	\$10,000	\$0
Total:	17				\$300,873,750	\$65,041,300

Source: National Hurricane Center and NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted the county as found below:

September 26, 2002—Tropical Storm Isidore moved onshore along the Louisiana coast early in the morning of September 26. The weakening storm then moved northeast across eastern Mississippi during the day. The heavy rainfall associated with the storm resulted in significant river and flash flooding across much of Mississippi. Twenty-four-hour rainfall totals between 5 and 10 inches were common over much of Mississippi, especially in the southern part of the state, where twenty-four-hour amounts exceeded 9 inches near Hattiesburg. Gradient wind gusts between 35 and 45 miles per hour combined with the saturated ground to lead to numerous downed trees and powerlines over the state. Most of the damage was seen along and east of the Natchez Trace, near the path of the storm's diffuse center. One indirect fatality was reported just east of the Kalem community in Scott County. Here, a falling tree struck a truck driven by a 31-year-old male.

June 30, 2003—Tropical Storm Bill tracked along Interstate 59. Heavy rainfall caused flash flooding. Forty-eight-hour rainfall totals ranged between 3-7 inches, mainly across SE Mississippi. Gradient wind gusts between 30 and 40 mph combined with saturated soils downed numerous trees very close to center's track.

September 16, 2004—Thousands of trees were blown down across Eastern Mississippi during the event as well as hundreds of power lines. The strong wind itself did not cause much structural damage, however the fallen trees did. These downed trees accounted for several hundred homes, mobile homes and businesses to be damaged or destroyed. Most locations across Eastern Mississippi reported sustained winds between 30 and 40 mph with Tropical Storm force gusts between 48 and 54 mph. The strongest reported winds occurred in Newton, Lauderdale and Oktibbeha Counties

August 29, 2005—Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20. This hurricane has changed life as we know it across the Gulf Coast region which will take many years to return to normal.

Hurricane Katrina was a very large and powerful storm which set several unfortunate records. The sustained winds were 145 mph, and the central pressure was 918 mb or 27.11 inches of mercury. This ranks Katrina as having the 3rd lowest pressure at landfall behind Camille (2nd) and the Labor Day Hurricane (1st).

Millions of trees were uprooted, snapped or severely damaged which caused just about all of the structural damage and downed power lines across this region. Hundreds of trees fell onto homes causing minor to major damage. Additionally, significant and extensive damage occurred to the Agriculture and Forestry industries of this region. The most devastating damage occurred across Southeast Mississippi, especially south and east of a Columbia to Collins to Laurel line. This region received sustained winds between 60 and 80 mph with gusts ranging from 80 to 120 mph. Wind damage to structures was widespread as many roofs were blown off or partially peeled off. Hundreds of signs were shredded or blown down. Many businesses sustained structural damage as windows were broken, roofs were blown off and walls were collapsed. Millions of trees were uprooted and snapped. Power poles and lines were snapped and taken down from wind and trees. It was the thousands of downed trees which caused the most significant structural damage as these trees fell onto homes and businesses. Ten fatalities were caused by trees falling on homes or on people in Jones county. This region received an enormous blow to the timber industry as a large percentage of trees were blown down or severely damaged. This timber damage will effect this region for decades. Additionally, the combination of the winds and loss of power caused significant losses to the poultry industry and other agricultural industries across this region.

Hurricane Katrina was responsible for 15 direct fatalities across inland Mississippi and 19 indirect. All the direct deaths, in some way, were attributed to fallen trees. Trees either fell on homes, on vehicles, or on the actual person. The indirect fatalities varied and ranged from heart attacks to heat stress during the days after without power.

Damage costs associated with this hurricane will be the highest for any natural disaster in United States history. Preliminary amounts, across the NWS Jackson County Warning Area (CWA), show property damage estimates around 5.9 Billion dollars. Agricultural damage across the region was also extremely high with estimates around 1.5 Billion dollars. The total estimated damage is approximately 7.4 Billion dollars. All of these estimates are extremely preliminary and will likely be adjusted over the coming months.

September 5, 2005—Hurricane Rita brought heavy rainfall, tropical storm force winds, and tornados to the region. Rainfall amounts ranged from 4-7 inches, which resulted in flooding. Winds between 25-35 mph, with gusts up to 40-50 mph, downed trees and power lines.

September 1, 2008—Hurricane Gustav was the 2nd major hurricane of the 2008 Atlantic Hurricane Season. Tropical storm force winds occurred across Marion County as the outer edges of Hurricane Gustav moved across southern Louisiana. Scattered trees and power lines were blown down, especially across the southern portion of the county. Wind gusts peaked between 45 and 55 mph for a few hours.

August 29, 2012—Isaac moved very slowly to the north and northwest over the course of August 29th, which made for prolonged impacts. Forward motion of about 5 mph lead to tremendous flooding issues for both Louisiana and portions of Mississippi south of I-20. Around noon on August 29th, Isaac was downgraded to a Tropical Storm, but this was not much relief to the many residents who were being inundated with rain and wind. Storm total rainfall across portions of Marion County indicated at least 10 to 15 inches fell. Numerous homes and buildings were flooded, and some water rescues occurred in Lamar, Marion and Clarke counties. By midafternoon on the 29th trees were blown down across the county, with a few power outages occurring. At midnight, roof damage occurred to a home southwest of Columbia with water leaking into the house. Strong winds continued into the morning hours before subsiding.

August 29, 2021—Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30. It then turned northeast and moved across the Jackson metro area as a tropical storm and into northeast Mississippi as a tropical depression through the early morning of August 31. Ida brought tropical storm force gusts to portions of Mississippi, which brought down trees and power lines. Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding. Tropical storm force wind gusts resulted in several trees and power lines downed across the county.

September 12, 2024—Tropical Storm Francine produced strong wind damage as it weakened across central Mississippi. Winds blew down scattered trees and powerlines across Marion County.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 percent). Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientist and meteorologists predict tropical cyclones to increase in frequency, magnitude, and intensity as the climate continues to change. These increases could be catastrophic to MS Coastal areas and the counties near the coast. Scientists also predict that hurricanes could increase in frequency and strength in the near future due the effects of Climate Change. This can be seen in the 2023 season with 23 named storms, 11 hurricanes, and 5 major hurricanes. This prediction makes the season the third most active season on record, behind the 2005 season with 28, and the 2020 season with a total of 30. It is expected that an above-average season next season with up to 25 named storms and 4-7 major hurricanes.

F.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Marion County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Marion County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Marion County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Marion County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in seven disaster declarations in Marion County in 1979, 1980, 1983, 1990, 2001, 2003, 2013, 2015, 2016, 2018, and twice in 2020. According to NCEI, there have been 133 reported thunderstorm and high wind events since 2020 in Marion County. These events caused over \$2.5 million in damages. **Table F.15** summarizes this information. **Table F.16** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE F.15: SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN MARION COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
<i>Columbia</i>	61	0	0	\$1,071,100	\$100,000
<i>Unincorporated Area</i>	62	0	0	\$1,351,000	\$30,000
Marion County Total:	133	0	0	\$2,422,100	\$130,000

Source: NCED/NOAA

TABLE F.16: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN MARION COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Columbia							
<i>Columbia</i>	7/16/2000	TSTM Wind	<i>Unknown</i>	0	0	\$3,000	\$0
<i>Columbia</i>	7/17/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Columbia</i>	7/19/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Columbia</i>	3/2/2001	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Columbia</i>	6/4/2001	TSTM Wind	<i>Unknown</i>	0	0	\$8,000	\$0
<i>Columbia</i>	6/19/2001	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Columbia</i>	3/15/2002	TSTM Wind	<i>Unknown</i>	0	0	\$25,000	\$0
<i>Columbia</i>	3/26/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Columbia</i>	4/8/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Columbia</i>	6/19/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0

Columbia	7/7/2002	TSTM Wind	60 kts.	0	0	\$6,000	\$0
Columbia	7/12/2002	TSTM Wind	Unknown	0	0	\$1,000	\$0
Columbia	12/24/2002	TSTM Wind	60 kts.	0	0	\$5,000	\$0
Columbia	12/31/2002	TSTM Wind	60 kts.	0	0	\$2,000	\$0
Columbia	5/14/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Columbia	6/3/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Columbia	11/27/2003	TSTM Wind	55 kts.	0	0	\$2,000	\$0
Columbia	6/27/2004	TSTM Wind	50 kts.	0	0	\$0	\$0
Columbia	8/12/2005	TSTM Wind	60 kts.	0	0	\$250,000	\$100,000
Columbia	3/20/2006	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Columbia	6/23/2006	TSTM Wind	50 kts.	0	0	\$0	\$0
Columbia	7/19/2006	TSTM Wind	58 kts.	0	0	\$25,000	\$0
Columbia	10/17/2006	TSTM Wind	54 kts.	0	0	\$2,000	\$0
Columbia	11/15/2006	TSTM Wind	53 kts.	0	0	\$0	\$0
Columbia	6/9/2007	TSTM Wind	50 kts.	0	0	\$4,000	\$0
Columbia	6/18/2007	TSTM Wind	53 kts.	0	0	\$25,000	\$0
Columbia	6/19/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
Columbia	8/1/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
Columbia	2/17/2008	TSTM Wind	50 kts.	0	0	\$8,000	\$0
Columbia	3/3/2008	TSTM Wind	55 kts.	0	0	\$0	\$0
Columbia	6/27/2008	TSTM Wind	55 kts.	0	0	\$10,000	\$0
Columbia	8/12/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
Columbia	5/5/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
Columbia	7/4/2009	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Columbia	7/30/2009	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Columbia	4/24/2010	TSTM Wind	50 kts.	0	0	\$50,000	\$0
Columbia	8/15/2010	TSTM Wind	55 kts.	0	0	\$12,000	\$0
Columbia	11/30/2010	TSTM Wind	53 kts.	0	0	\$15,000	\$0
Columbia	4/15/2011	TSTM Wind	50 kts.	0	0	\$4,000	\$0
Columbia	7/12/2011	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Columbia	8/18/2011	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Columbia	9/28/2011	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Columbia	4/3/2012	TSTM Wind	50 kts.	0	0	\$5,000	\$0
Columbia	5/31/2012	TSTM Wind	40 kts.	0	0	\$15,000	\$0
Columbia	7/20/2012	TSTM Wind	43 kts.	0	0	\$100	\$0
Columbia	8/28/2012	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Columbia	12/20/2012	TSTM Wind	50 kts.	0	0	\$1,000	\$0
Columbia	8/12/2013	TSTM Wind	50 kts.	0	0	\$10,000	\$0
Columbia	4/8/2014	TSTM Wind	65 kts.	0	0	\$50,000	\$0
Columbia	10/13/2014	TSTM Wind	52 kts.	0	0	\$0	\$0
Columbia	6/27/2015	TSTM Wind	39 kts.	0	0	\$3,000	\$0
Columbia	7/1/2015	TSTM Wind	50 kts.	0	0	\$3,000	\$0
Columbia	3/17/2016	TSTM Wind	50 kts.	0	0	\$7,000	\$0
Columbia	8/5/2016	TSTM Wind	57 kts.	0	0	\$258,000	\$0
Columbia	4/3/2017	TSTM Wind	50 kts.	0	0	\$2,000	\$0
Columbia	6/16/2017	TSTM Wind	55 kts.	0	0	\$30,000	\$0
Columbia	7/2/2018	TSTM Wind	50 kts.	0	0	\$4,000	\$0

<i>Columbia</i>	7/7/2018	TSTM Wind	43 kts.	0	0	\$5,000	\$0
<i>Columbia</i>	8/7/2018	TSTM Wind	43 kts.	0	0	\$2,000	\$0
<i>Columbia</i>	11/1/2018	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Columbia</i>	10/26/2019	TSTM Wind	54 kts.	0	0	\$35,000	\$0
<i>Columbia</i>	7/8/2020	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Columbia</i>	8/16/2020	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Columbia</i>	11/30/2022	TSTM Wind	50 kts.	0	0	\$25,000	\$0
<i>Columbia</i>	5/5/2023	TSTM Wind	52 kts.	0	0	\$50,000	\$0
<i>Columbia</i>	7/22/2023	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>Columbia</i>	9/7/2023	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>Columbia</i>	6/4/2024	TSTM Wind	52 kts.	0	0	\$30,000	\$0
Unincorporated Area in Monroe County							
<i>Foxworth</i>	1/9/2000	TSTM Wind	<i>Unknown</i>	0	0	\$5,000	\$0
<i>Sandy Hook</i>	6/25/2000	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Sandy Hook</i>	8/30/2000	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Goss</i>	12/13/2000	TSTM Wind	56 kts.	0	0	\$2,000	\$0
<i>County Wide</i>	1/29/2001	TSTM Wind	<i>Unknown</i>	0	0	\$8,000	\$0
<i>Kokomo</i>	3/12/2001	TSTM Wind	<i>Unknown</i>	0	0	\$5,000	\$0
<i>Kokomo</i>	10/13/2001	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>County Wide</i>	5/17/2002	TSTM Wind	<i>Unknown</i>	0	0	\$2,000	\$0
<i>Morgantown</i>	7/7/2002	TSTM Wind	55 kts.	0	0	\$1,000	\$0
<i>Morgantown</i>	7/12/2002	TSTM Wind	<i>Unknown</i>	0	0	\$1,000	\$0
<i>Morgantown</i>	10/29/2002	TSTM Wind	<i>Unknown</i>	0	0	\$10,000	\$0
<i>White Bluff</i>	4/24/2003	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>County Wide</i>	5/14/2003	TSTM Wind	55 kts.	0	0	\$20,000	\$0
<i>Sandy Hook</i>	6/12/2003	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>County Wide</i>	7/22/2003	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Goss</i>	11/24/2003	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Sandy Hook</i>	11/27/2003	TSTM Wind	60 kts.	0	0	\$5,000	\$0
<i>Foxworth</i>	4/6/2005	TSTM Wind	70 kts.	0	0	\$80,000	\$0
<i>Hub</i>	4/30/2005	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Kokomo</i>	8/21/2005	TSTM Wind	55 kts.	0	0	\$30,000	\$30,000
<i>Sandy Hook</i>	12/4/2005	TSTM Wind	55 kts.	0	0	\$20,000	\$0
<i>Kokomo</i>	1/4/2007	TSTM Wind	55 kts.	0	0	\$5,000	\$0
<i>County</i>	2/24/2007	Strong Wind	39 kts.	0	0	\$1,000	\$0
<i>Neb & Mildred</i>	4/14/2007	TSTM Wind	54 kts.	0	0	\$15,000	\$0
<i>Morgantown</i>	5/3/2007	TSTM Wind	53 kts.	0	0	\$0	\$0
<i>Sandy Hook</i>	6/19/2007	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Neb</i>	7/12/2007	TSTM Wind	50 kts.	0	0	\$20,000	\$0
<i>Twin</i>	2/12/2008	TSTM Wind	70 kts.	0	0	\$50,000	\$0
<i>Sumbax</i>	2/17/2008	TSTM Wind	53 kts.	0	0	\$8,000	\$0
<i>Kokomo</i>	3/3/2008	TSTM Wind	55 kts.	0	0	\$0	\$0
<i>Natcole</i>	4/18/2008	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Cheraw</i>	5/15/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Kokomo</i>	5/26/2008	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Morgantown & Twin</i>	6/25/2008	TSTM Wind	60 kts.	0	0	\$11,000	\$0

<i>Pinebur</i>	8/2/2008	TSTM Wind	54 kts.	0	0	\$15,000	\$0
<i>Sumbax</i>	4/2/2009	TSTM Wind	50 kts.	0	0	\$4,000	\$0
<i>Kokomo</i>	10/15/2009	TSTM Wind	50 kts.	0	0	\$1,000	\$0
<i>County</i>	3/1/2010	Strong Wind	43 kts.	0	0	\$25,000	\$0
<i>Cheraw</i>	8/15/2010	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Lovelace & Sandy Hook</i>	4/4/2011	TSTM Wind	60 kts.	0	0	\$40,000	\$0
<i>Cheraw</i>	6/10/2011	TSTM Wind	50 kts.	0	0	\$30,000	\$0
<i>Neb</i>	6/21/2011	TSTM Wind	50 kts.	0	0	\$20,000	\$0
<i>Kokomo</i>	8/18/2011	TSTM Wind	50 kts.	0	0	\$3,000	\$0
<i>County</i>	5/30/2012	Strong Wind	40 kts.	0	0	\$15,000	\$0
<i>Lovelace</i>	6/11/2012	TSTM Wind	53 kts.	0	0	\$10,000	\$0
<i>County</i>	4/15/2014	Strong Wind	43 kts.	0	0	\$5,000	\$0
<i>Sumbax</i>	12/28/2015	TSTM Wind	50 kts.	0	0	\$6,000	\$0
<i>Jamestown & Hub</i>	1/2/2017	TSTM Wind	55 kts.	0	0	\$27,000	\$0
<i>Twin</i>	1/21/2017	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Kokomo</i>	4/30/2017	TSTM Wind	55 kts.	0	0	\$7,000	\$0
<i>Goss</i>	6/16/2017	TSTM Wind	55 kts.	0	0	\$20,000	\$0
<i>Sandy Hook, & Pinebur</i>	4/14/2018	TSTM Wind	52 kts.	0	0	\$14,000	\$0
<i>County</i>	10/26/2019	TSTM Wind	54 kts.	0	0	\$45,000	\$0
<i>Kokomo</i>	2/5/2020	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Kokomo</i>	4/23/2020	TSTM Wind	50 kts.	0	0	\$2,000	\$0
<i>White Bluff</i>	6/25/2020	TSTM Wind	52 kts.	0	0	\$8,000	\$0
<i>Kokomo</i>	7/8/2020	TSTM Wind	45 kts.	0	0	\$2,000	\$0
<i>Fortenberry</i>	8/16/2020	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Goss & Sandy Hook</i>	3/17/2021	TSTM Wind	65kts.	0	0	\$252,000	\$0
<i>Morgantown</i>	4/9/2021	TSTM Wind	60 kts.	0	0	\$75,000	\$0
<i>Pickwick</i>	3/30/2022	TSTM Wind	54 kts.	0	0	\$20,000	\$0
<i>Foxworth</i>	1/3/2023	TSTM Wind	52 kts.	0	0	\$10,000	\$0
<i>Kokomo</i>	4/15/2023	TSTM Wind	75 kts.	0	0	\$1,000	\$0
<i>Carmich</i>	6/14/2023	TSTM Wind	75 kts.	0	0	\$25,000	\$0
<i>Neb</i>	9/7/2023	TSTM Wind	55 kts.	0	0	\$20,000	\$0
<i>Jamestown</i>	4/10/2024	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>Goss</i>	5/13/2024	TSTM Wind	96 kts.	0	0	\$250,000	\$0
<i>Goss</i>	5/13/2024	TSTM Wind	60 kts.	0	0	\$6,000	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 81 recorded hailstorm events have affected Marion County since 2000. **Table F.17** is a summary of the hail events in Marion County. **Table F.18** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$28 million in property damages. Hail ranged in diameter from 0.75 inches to 4.0 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value.

Lightning

According to the National Centers for Environmental Information, there has been five recorded lightning events in Marion County since 2000, as listed in summary **Table F.17**. They caused approximately \$342,000 in damages.

Table F.18 provides detailed information about each event that occurred in the county. It is likely that other lightning events have impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported.

TABLE F.17: SUMMARY OF HAIL AND LIGHTNING OCCURRENCES IN MARION COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Columbia</i>	39	0	0	\$504,000	\$0
<i>Unincorporated Area</i>	48	0	0	\$27,915,000	\$0
Marion County Total:	86	0	0	\$28,419,000	\$0

Source: NCED/NOAA

TABLE F.18: HISTORICAL HAIL AND LIGHTNING OCCURRENCES IN MARION COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Columbia							
<i>Columbia</i>	5/5/2000	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	8/10/2000	Hail	0.75 in.	0	0	\$15,000	\$0
<i>Columbia</i>	3/1/2001	Hail	1.75 in.	0	0	\$12,000	\$0
<i>Columbia</i>	3/1/2001	Hail	0.88 in.	0	0	\$0	\$0
<i>Columbia</i>	3/12/2002	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	7/7/2002	Hail	1.75 in.	0	0	\$1,000	\$0
<i>Columbia</i>	7/21/2002	Hail	1.75 in.	0	0	\$0	\$0
<i>Columbia</i>	4/7/2003	Hail	0.75 in.	0	0	\$1,000	\$0
<i>Columbia</i>	4/7/2003	Hail	1.75 in.	0	0	\$20,000	\$0
<i>Columbia</i>	5/3/2003	Hail	0.75 in.	0	0	\$1,000	\$0
<i>Columbia</i>	5/3/2003	Hail	1.75 in.	0	0	\$20,000	\$0
<i>Columbia</i>	5/3/2003	Hail	1 in.	0	0	\$1,000	\$0
<i>Columbia</i>	3/31/2005	Hail	0.88 in.	0	0	\$0	\$0
<i>Columbia</i>	8/12/2005	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	12/28/2007	Hail	1 in.	0	0	\$0	\$0
<i>Columbia</i>	3/3/2008	Lightning	--	0	0	\$100,000	\$0
<i>Columbia</i>	6/10/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	7/29/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	3/27/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	4/12/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	4/13/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	6/1/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	8/21/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	2/21/2010	Hail	1 in.	0	0	\$0	\$0
<i>Columbia</i>	4/24/2010	Hail	1 in.	0	0	\$0	\$0
<i>Columbia</i>	7/25/2010	Lightning	--	0	0	\$12,000	\$0
<i>Columbia</i>	4/15/2011	Hail	1.5 in.	0	0	\$0	\$0
<i>Columbia</i>	5/13/2011	Hail	1.75 in.	0	0	\$50,000	\$0
<i>Columbia</i>	9/28/2011	Hail	1 in.	0	0	\$0	\$0

<i>Columbia</i>	9/28/2011	Hail	0.75 in.	0	0	\$0	\$0
<i>Columbia</i>	8/9/2012	Lightning	--	0	0	\$5,000	\$0
<i>Columbia</i>	9/4/2012	Hail	1 in.	0	0	\$4,000	\$0
<i>Columbia</i>	2/22/2013	Hail	1.5 in.	0	0	\$2,000	\$0
<i>Columbia</i>	1/21/2016	Hail	1.25 in.	0	0	\$0	\$0
<i>Columbia</i>	8/11/2017	Lightning	--	0	0	\$200,000	\$0
<i>Columbia</i>	5/26/2018	Hail	1 in.	0	0	\$0	\$0
<i>Columbia</i>	4/19/2020	Hail	1 in.	0	0	\$0	\$0
<i>Columbia</i>	5/27/2020	Hail	1.75 in.	0	0	\$10,000	\$0
<i>Columbia</i>	3/28/2023	Hail	1 in.	0	0	\$50,000	\$0
Unincorporated Area in Marion County							
<i>Foxworth</i>	4/23/2000	Hail	0.75 in.	0	0	\$0	\$0
<i>County Wide</i>	4/24/2000	Hail	0.75 in.	0	0	\$0	\$0
<i>Foxworth</i>	3/12/2001	Hail	1 in.	0	0	\$8,000	\$0
<i>Goss</i>	3/12/2001	Lightning	--	0	0	25,000	\$0
<i>Sandy Hook</i>	3/6/2003	Hail	0.88 in.	0	0	\$1,000	\$0
<i>Kokomo</i>	4/7/2003	Hail	1.50 in.	0	0	\$10,000	\$0
<i>Kokomo</i>	4/7/2003	Hail	4 in.	0	0	\$500,000	\$0
<i>Goss</i>	4/24/2003	Hail	0.88 in.	0	0	\$1,000	\$0
<i>Goss</i>	4/25/2003	Hail	0.88 in.	0	0	\$1,000	\$0
<i>Goss</i>	4/25/2003	Hail	1 in.	0	0	\$1,000	\$0
<i>Morgantown</i>	5/14/2003	Hail	1.75 in.	0	0	\$10,000	\$0
<i>Kokomo</i>	4/29/2004	Hail	0.88 in.	0	0	\$0	\$0
<i>Foxworth</i>	3/22/2005	Hail	1 in.	0	0	\$0	\$0
<i>Kokomo</i>	3/30/2005	Hail	1 in.	0	0	\$0	\$0
<i>Kokomo</i>	3/31/2005	Hail	1.75 in.	0	0	\$15,000	\$0
<i>White Bluff & Kokomo</i>	4/6/2005	Hail	1.75 in.	0	0	\$0	\$0
<i>Goss</i>	4/22/2005	Hail	0.75 in.	0	0	\$0	\$0
<i>Goss</i>	8/9/2006	Hail	0.88 in.	0	0	\$0	\$0
<i>Sandy Hook</i>	2/13/2007	Hail	1 in.	0	0	\$0	\$0
<i>Kokomo</i>	4/3/2007	Hail	1.75 in.	0	0	\$40,000	\$0
<i>White Bluff</i>	12/28/2007	Hail	1.25 in.	0	0	\$0	\$0
<i>Kokomo</i>	1/10/2008	Hail	2.75 in.	0	0	\$100,000	\$0
<i>Sumbax</i>	2/12/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Lovelace</i>	3/3/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Sandy Hook</i>	6/20/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Pinebure</i>	6/25/2008	Hail	1 in.	0	0	\$0	\$0
<i>Saxon & Twin</i>	6/25/2008	Hail	0.75 in.	0	0	\$0	\$0
<i>Sandy Hook</i>	9/20/2008	Hail	0.88 in.	0	0	\$0	\$0
<i>White Bluff</i>	3/27/2009	Hail	1 in.	0	0	\$0	\$0
<i>Hub</i>	3/27/2009	Hail	1.75 in.	0	0	\$0	\$0
<i>Sandy Hook</i>	4/13/2009	Hail	1 in.	0	0	\$0	\$0
<i>Pickwick</i>	5/5/2009	Hail	0.88 in.	0	0	\$0	\$0
<i>White Bluff</i>	5/12/2009	Hail	0.75 in.	0	0	\$0	\$0
<i>Morgantown</i>	2/21/2010	Hail	1.75 in.	0	0	\$3,000	\$0
<i>Goss</i>	2/10/2010	Hail	2.75 in.	0	0	\$150,000	\$0

Jamestown	3/18/2013	Hail	1.75 in.	0	0	\$0	\$0
Foxworth & Kokomo	12/23/2014	Hail	0.75 in.	0	0	\$0	\$0
Morgantown	3/17/2016	Hail	2.50 in.	0	0	\$50,000	\$0
Pinebur	1/21/2017	Hail	1.75 in.	0	0	\$10,000	\$0
Goss	2/7/2017	Hail	0.75 in.	0	0	\$0	\$0
Pinebur	3/17/2018	Hail	1 in.	0	0	\$0	\$0
Morgantown	5/27/2020	Hail	1 in.	0	0	\$0	\$0
Kokomo	4/23/2021	Hail	0.88 in.	0	0	\$0	\$0
Kokomo	4/15/2022	Hail	1.75 in.	0	0	\$1,000,000	\$0
Pickwick	4/15/2022	Hail	1.25 in.	0	0	\$25,000,000	\$0
Jamestown	4/15/2023	Hail	1 in.	0	0	\$30,000	\$0
Pinebur	4/27/2023	Hail	1 in.	0	0	\$10,000	\$0
Pickwick & Sumbax	2/11/2024	Hail	1.75 in.	0	0	\$950,000	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Marion County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there were no historical lightning events reported in Marion County via NCEI data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), Marion County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year. Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county in crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

F.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Marion County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that Marion County is uniformly exposed to this hazard.

HISTORICAL OCCURRENCES

Tornadoes resulted in eleven disaster declarations in Marion County in 1973, 1979, 1980, 1983, 1990, 2001, 2003, 2013, 2014, 2015, and 2018. According to the National Centers for Environmental Information, there have been a total of 32 recorded tornado events in Marion County since 2000 (**Table F.19**), resulting in over \$30 million in property damages. In addition, 55 injuries and 4 deaths were reported. The magnitude of these tornadoes ranges from F0 to EF4 in intensity, although an EF5 event is possible. Detailed information on historic tornado events can be found in **Table F.20**.

TABLE F.19: SUMMARY OF TORNADO OCCURRENCES IN MARION COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Columbia</i>	9	3	50	\$25,934,000	\$0
<i>Unincorporated Area</i>	23	1	5	4,100,000	\$25,000
County Total:	32	4	55	\$30,034,000	\$25,000

TABLE F.20: HISTORICAL TORNADO IMPACTS IN MARION COUNTY

Location	Date	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
City of Columbia						
<i>Columbia</i>	2/16/2001	F0	0	0	\$1,000	\$0
<i>Columbia</i>	3/12/2001	F1	0	0	\$100,000	\$0
<i>Columbia</i>	3/12/2001	F1	0	0	\$702,000	\$0
<i>Columbia</i>	10/13/2001	F0	0	0	\$1,000	\$0
<i>Columbia</i>	2/20/2014	EF0	0	0	\$15,000	\$0
<i>Columbia</i>	12/23/2014	EF3	3	50	\$25,000,000	\$0
<i>Columbia</i>	10/31/2015	EF0	0	0	\$5,000	\$0
<i>Columbia</i>	12/16/2019	EF1	0	0	\$50,000	\$0
<i>Columbia</i>	6/19/2023	EF0	0	0	\$60,000	\$0
Unincorporated Area in Marion County						
<i>Kokomo</i>	3/12/2001	F1	0	0	\$10,000	\$0
<i>Sandy Hook</i>	11/11/2002	F1	0	0	\$75,000	\$0
<i>Hub</i>	4/30/2005	F0	0	0	\$10,000	\$0
<i>Sandy Hook</i>	1/1/2006	F1	0	0	\$100,000	\$0
<i>Kokomo</i>	10/27/2006	F1	0	0	\$700,000	\$0
<i>Sandy Hook</i>	11/15/2006	F1	0	0	\$90,000	\$0
<i>Pinebur</i>	4/14/2007	EF0	0	0	\$1,000	\$0
<i>Jamestown</i>	3/3/2008	EF1	0	0	\$250,000	\$25,000
<i>Goss</i>	9/1/2008	EF0	0	0	\$1,000	\$0
<i>Goss</i>	11/16/2011	EF1	0	0	\$200,000	\$0
<i>Pinebur</i>	1/17/2012	EF2	0	2	\$250,000	\$0

Pickwick	12/10/2012	EF1	0	0	\$40,000	\$0
Pickwick	2/10/2013	EF2	0	3	\$300,000	\$0
Pickwick	10/31/2015	EF1	0	0	\$75,000	\$0
Twin	2/23/2016	EF1	0	0	\$25,000	\$0
Sumbax	12/16/2019	EF2	0	0	\$300,000	\$0
White Bluff	4/12/2020	EF2	0	0	\$1,000,000	\$0
St. Paul	4/19/2020	EF4	1	0	\$400,000	\$0
White Bluff	4/23/2020	EF0	0	0	\$20,000	\$0
Kokomo	6/24/2020	EF0	0	0	\$12,000	\$0
Morgantown	4/9/2021	EF1	0	0	\$90,000	\$0
Goss	11/29/2022	EF0	0	0	\$1,000	\$0
Jamestown	11/30/2022	EF2	0	0	\$150,000	\$0

Source: NCED/NOAA

Anecdotes are available from NCEI for the major storms that have impacted that area as found below:

October 27, 2006—October 27th offered another strong early fall system to move through the area. Most of the storm activity remained across the far southern and southeast portion of the forecast area. This portion of the region received some flash flooding, wind damage and a few tornadoes. An F1 tornado touched down just to the southeast of Kokomo and tracked east northeast for about five miles. The most intense damage was near and just south of where the tornado crossed Highway 98. A service station was damaged, a cluster of several dozen trees were snapped near the base and two homes suffered moderate damage. An 18-wheel semi-truck was also flipped over on Highway 98. Numerous trees were snapped and damaged over the first half of the track, then the damaged tapered to F0 damage where a few trees and limbs were blown down.

March 3, 2008—This tornado touched down about 5 miles southwest of the Foxworth Community. A livestock barn was seriously damaged and numerous hardwood trees were snapped or uprooted. A roof was blown off an outbuilding and a trampoline was thrown into a pond. One cow was killed. Maximum winds were 100 mph.

January 17, 2012—The tornado first touched down along Mail Route Road and tracked across a farm, uprooting and snapping trees and causing minor damage to shed and fences. The tornado then crossed Clear Creek Church Road where it reached its maximum intensity. A well anchored single wide trailer was destroyed with the contents tossed into the nearby woods. A well-built shed was also destroyed with the contents deposited into the woods. A wood frame home received damage to one wall and had numerous shingles torn off. Two power poles were snapped off, and an impressive number of hard wood trees were snapped in this location as well. The tornado continued moving northeast producing low end EF -1 tree damage, while crossing several dirt roads before dissipating. Maximum wind speeds were estimated at 115mph.

February 10, 2013—This tornado started just inside Marion County on New Hope Road where a few outbuildings were destroyed. On the east side of the road, a home had a good portion of the roof torn off. The tornado then crossed Hurricane Creek Road and approached Mt Carmel Church Road, which is where the most intense damage occurred. Three mobile homes were completely destroyed with just the undercarriage left (3 injuries occurred here). A bit further northeast, the tornado crossed Regan Road where three homes sustained significant roof damage. Numerous trees were snapped or uprooted in this area as well. The tornado weakened as it crossed Hwy 35 but continued to produce low end tree damage across Hwy 13 South and Game Reserve Road. Additional damage to structures occurred near the Lamar County line along Columbia-Purvis Road, Powell Lane and Cul-de-sac Drive.

The tornado then entered Lamar County causing additional damage to structures with one home off Wiley Lott Road having the roof removed. A number of power poles were snapped in this area as well, along with significant tree damage. The tornado dissipated shortly after producing this damage. Maximum wind speeds were estimated at 120 mph.

December 23, 2014—This tornado first touched down just east of the Pearl River just south of Columbia. It quickly became strong and moved northeast impacting the southeast side of Columbia. The tornado remained on the ground through Marion County before lifting as it approached the Lamar County line. Numerous businesses, homes, mobile homes, a National Guard building and power poles and lines were heavily damaged or destroyed by the tornado.

One well-built home was mostly destroyed and nearly reduced to a slab. This home received the highest damage rating. Extensive tree damage also occurred along the path of the storm. Maximum wind speed of this tornado was 165mph.

April 12, 2020—The total path length of the tornado was 21.17 miles. Maximum width was 1.1 miles in Lawrence County. Maximum estimated wind speed for the tornado was 170mph and rated an EF4. However the maximum estimated wind speed in Marion County was 125mph, which was rated an EF2.

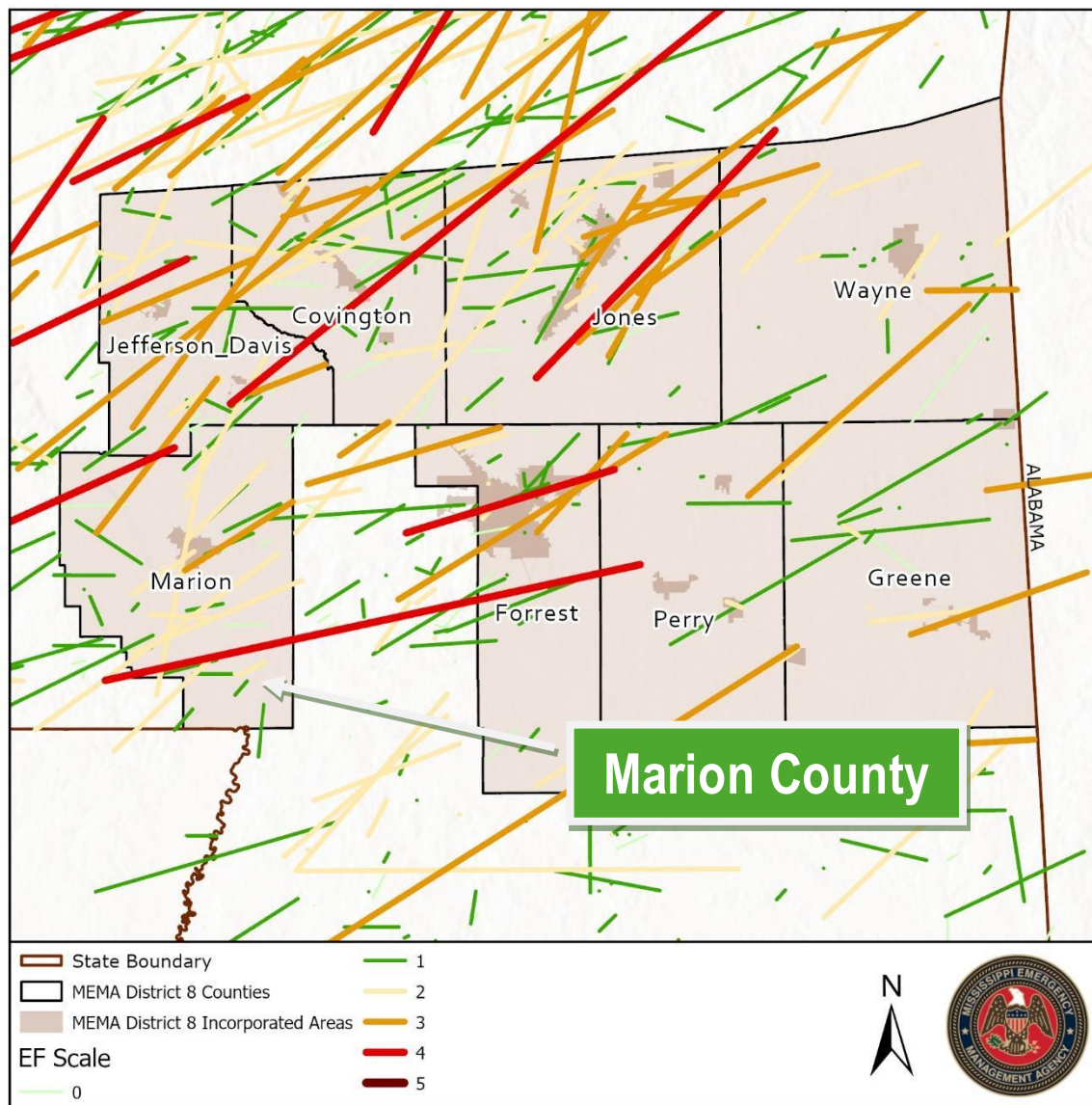
April 9, 2021—This EF1 tornado started in western Marion County, near Bracey Road, and tracked southeast for just over 7 miles. The tornadic circulation was embedded in a swath of wind that tracked in a similar manner but was much wider and had sporadic tree damage. Shortly after the tornadic circulation organized, it peaked in intensity and produced a focused corridor of solid tree damage. This was near the intersection of Circle Bar Road and Ratliff Road. From here, the tornado weakened a bit but continued to produce a more focused corridor of mostly tree damage. A few homes had trees on them with several sheds and carports having the roof taken off. The tornado basically stayed just on the north side of Highway 586. The tornado dissipated before crossing Highway 586 on the west side of Foxworth and all that remained was straight line wind damage. Max winds were 105 mph.

November 29, 2022—Satellite imagery suggests this EF-0 tornado may have touched down near and began damaging trees along Pierce Creek between JL Robbins Road and Smith Hill Road in southwest Jefferson Davis County. The tornado continued northeastward and briefly crossed into far northern Marion County. After it crossed Bunker Hill Road, the tornado continued again into Jefferson Davis County. A few trees were uprooted and damaged near Ebenezer Church Road, and satellite imagery suggests a few additional trees were damaged or uprooted between Ebenezer Church Road and Mill Road. The tornado dissipated before it reached Mississippi Highway 35. The estimated peak wind speed was 85 mph. The combined tornado path across both counties was 3.38 miles. A tornadic debris signature was observed on radar with this tornado.

November 30, 2022—An EF-2 tornado touched down just north of Ten Mile Creek Road in southern Marion County where it initially produced minor tree damage. An outbuilding was blown over in this area as well. The tornado quickly intensified and damaged the roof of a residence as it moved eastward. Nearby trees, power poles, and a flag pole were also blown down. The tornado tracked eastward where it continued to intensify and reached its maximum intensity with approximately 125 mph winds. Here, a cellular tower along Dunaway Loop was destroyed. As the tornado crossed Mississippi Highway 35, outbuildings were damaged, and snapped and uprooted trees were common in a narrow path. Sentinel satellite imagery indicated that the tornado continued eastward across the Pearl River and dissipated just west of Old River Road. A tornadic debris signature was observed on radar with this tornado.

July 19, 2023—An EF-0 tornado began near the Broad Street and East Avenue intersection where tree limb and sporadic tree damage occurred. The tornado continued eastward and produced damage primarily to branches but did uproot a few trees as well. As the tornado crossed the area from Clearview Drive into Briarwood Dr., a tree was blown onto a home which caused roof damage. The tornado dissipated near Hasselwood Dr. where a few pines were leaned over, and small branches were blown down. Peak estimated winds were 75 mph.

FIGURE F.8: TORNADOES IN MARION COUNTY 2000-2024



PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Marion County. The probability of future tornado occurrences affecting Marion County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

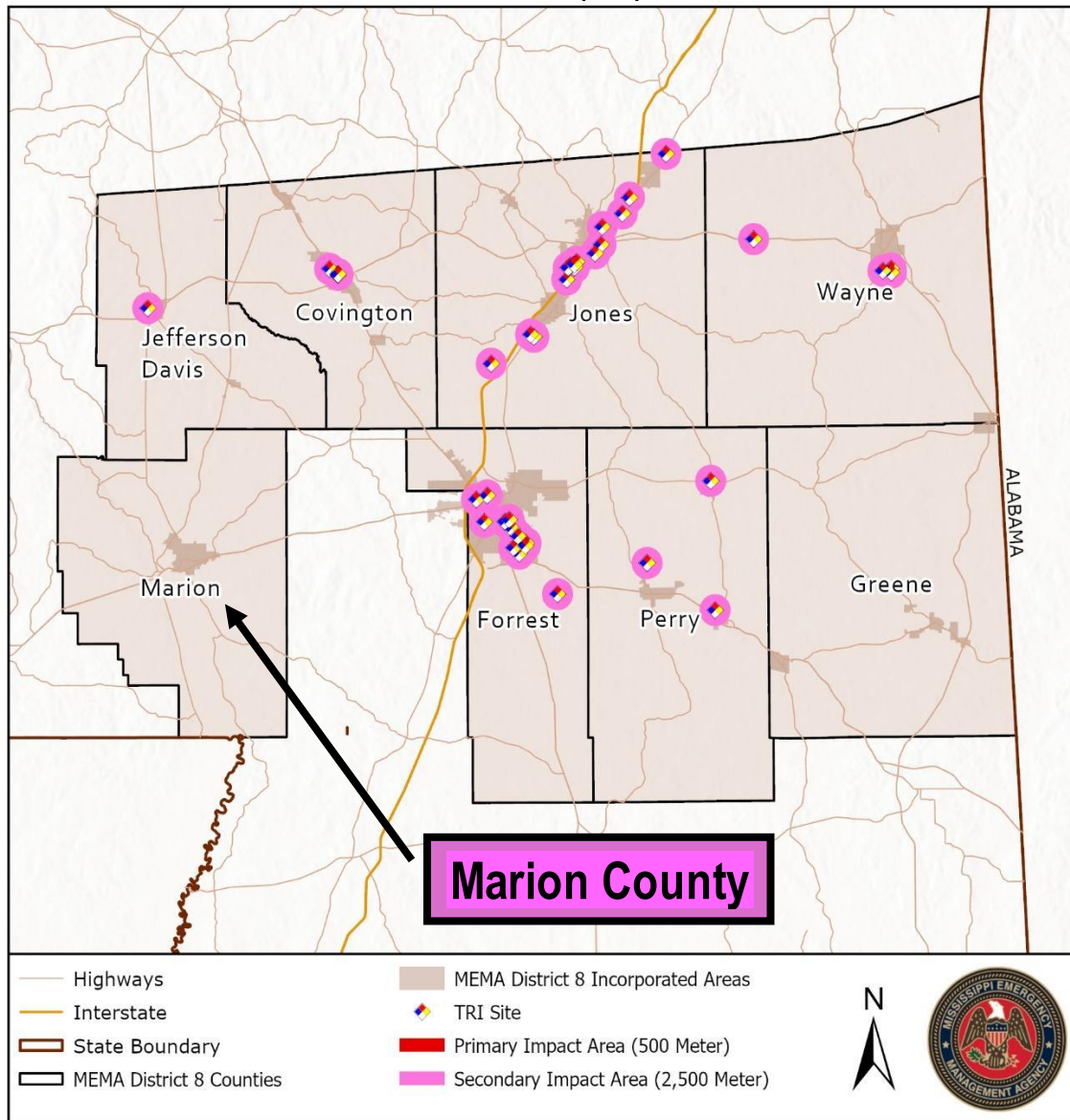
F.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Marion County has no TRI sites as shown in **Figure F.9**.

FIGURE F.9 TOXIC RELEASE INVENTORY (TRI) SITES IN MARION COUNTY

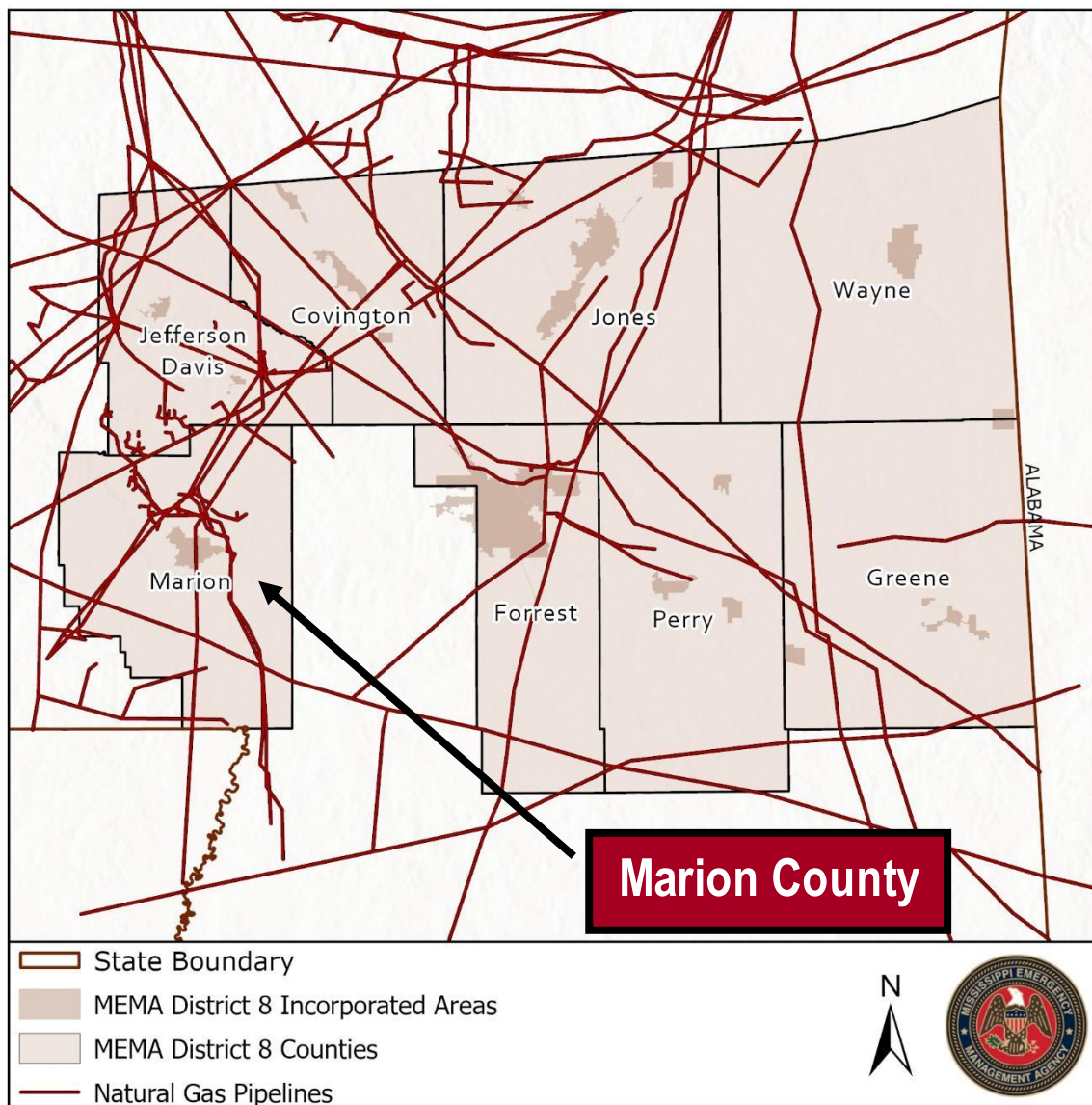


In addition to “fixed” hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

There are two distinct types of pipelines that are used in the transport of potentially hazardous materials, gas lines and hazardous liquid lines. **Figure F.10** shows the trunk lines for each of these material types but does not show the gathering or distribution pipelines. The natural gas pipelines are in red/maroon. This data has not changed since the last plan update.

FIGURE F.10: PIPELINES IN MARION COUNTY



Meth Labs

One of the greatest concerns about meth labs is that they are clandestine in nature. Additionally, once a meth lab has been identified, police authorities generally attempt to eliminate the site as quickly as possible. Therefore, it is nearly impossible to identify specific locations for meth labs and instead, the entire planning area is considered to be at risk to this hazard.

HISTORICAL OCCURRENCES

Hazardous Materials

There has been a total of five recorded HAZMAT incidents in Marion County since 1978, resulting in nearly \$318,000 in property damages. In addition, one injury was reported. **Table F.21** presents detailed information on historic HAZMAT incidents in Marion County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

TABLE F.21: HAZMAT INCIDENTS IN MARION COUNTY

Location	Date	Report Number	Mode	Serious Incident	Deaths/ Injuries	Damages	Quantity Released
The City of Columbia							
Columbia	12/31/1978	I-1979010516	Highway	No	0/0	\$0	0
Columbia	9/3/1980	I-1980091215	Highway	Yes	0/0	\$0	7,808 LGA
Columbia	9/11/2000	I-2000100690	Highway	No	0/0	\$60	0.5 LGA
Columbia	9/18/2003	I-2003091346	Highway	Yes	0/1	\$280	700 LGA
Unincorporated Area in Marion County							
Foxworth	9/4/1996	I-1996100679	Highway	Yes	0/1	\$317,659	3,977 LGA

Source: PHMSA

Pipelines

Between 2002 and 2024, there have been 2 pipeline incidents in Marion County. They occurred in 2004 and 2009 and there were no deaths or injuries. The property damage was estimated at a total of \$210,502.

Meth Labs

Meth lab incidents have occurred at various times throughout Marion County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

Given that there are no toxic release inventory sites in Marion County and only a few roadway and rail incidents, it is possible that a hazardous material incident may occur in the county (between one percent and ten percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Although there are no TRI sites and a limited record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and curvy, mountain roadways.

Pipelines

Since there have been 2 major pipeline incidents and there are 285 miles of gas and hazardous liquid lines in the region, it is anticipated that there will be future pipeline incidents in Marion County. These events are considered possible.

Meth Labs

Meth lab incidents will likely continue to occur throughout Marion County. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

F.2.14 Cyber Terrorism

A **cyber-attack** is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. A **cyberterrorism event** can impact one or more parts of Marion County and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The **cyberterrorism hazard** is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. Targets of cyberterrorism can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in Marion County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact for Marion County. As such, the county will continue to be compelled to respond to cyberterrorisms in the future. The nature of these attacks is projected to evolve in sophistication over time. Marion County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations.

The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

F.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. Marion County chose to analyze this hazard given impacts of the Covid-19 Virus on the health and welfare of the county as well as its economy. A Disaster Declaration was declared for the Covid-19 Virus. This was the first Declaration of this kind.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be shutdown, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates back to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused from a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Similar to other pandemics, this pandemic has two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and those with chronic respiratory, cardiac, neurological, or immunity conditions.

Worldwide, it is estimated that 43 million to 89 million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Marion County had 8,872 cases of Covid and 155 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have underlying health conditions.

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Webster County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154.pdf/SNSPlan.pdf>

F.2.16 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its "How-to" guidance document titled Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table **F.22** describes the extent of each natural hazard identified for Marion County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE F.22: EXTENT OF MARION COUNTY HAZARDS

HAZARD	DESCRIPTION
Tectonic Hazards	
Earthquake	Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Marion County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, USGS data shows Marion County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.
Mass-Movements	
Landslide	As noted above in the landslide profile, there is no extensive history of landslides in Marion County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout the county. There is also susceptibility throughout the county.
Expansive Soils	As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Marion County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Marion County.
Hydraulic Hazards	
Drought	Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Marion County has received this ranking several times over the twenty-four-year reporting period.
Floods	Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 15.4 percent of the total land area in Marion County. Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at the Pearl River near Columbia in 1874. Water reached a discharge of 165,000 cubic feet per second and the stream gage height was recorded at 31.00 feet.
Dam Failure	Dam Failure extent is defined using the Mississippi Division of Environmental Quality criteria. Two dams are classified as high hazard in the county.
Meteorological Hazards	
Hurricane and Tropical Storms	Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Marion County was a Category 3 storm (Hurricane Katrina in 2005) which carried tropical force winds of 130 miles per hour upon arrival in the county.
Thunderstorms/ Hail/ Lightning/ Wind	Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Marion County was last reported on May 14, 2024, at 96 knots (approximately 110 mph). It should be noted that future events may exceed these historical occurrences. Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Marion County was 4.0 inches (last reported on April 7, 2003). It should be noted that future events may exceed this. According to the Vaisala's flash density map, Marion County is located in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.
Winter Storms	The extent of winter storms can be measured by the amount of snowfall received (in inches). Official long-term snow records are not kept for any areas in the MEMA District 8 Region. However, the greatest snowfall reported in Jackson (north of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.
Temperature Extremes/ Heat Wave	A four day stretch of extreme temperatures occurred across the region to start off the month of August in 2023. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas. This extreme heat resulted in 3 fatalities across the forecast area.
Tornado	Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Marion County was an EF4 (reported on April 19, 2020).
Biological Hazards	
Pandemic	The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life. Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million

	people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Marion County had 8,872 cases of COVID and 155 deaths
Other Natural Hazards	
Wildfire	Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by county from 2010-2023. The greatest number of fires to occur in Marion County in any year was 128 in 2011. The greatest number of acres to burn in the county in a single year occurred in 2021 when 1,317 acres were burned and again in 2023 with 1,296 acres burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.
Erosion	The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Marion County.
Climate Change	The extent Climate change will impact Marion County is hard to estimate. It could cause more intense, frequent, and/or magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase so will property damage and possible loss of life.
Other Hazards	
Cyber Attack	The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damages depends on the demands of the cyberterrorist.
Hazard Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the county is 7,808 LGA released on the highway in Columbia. It should be noted that larger events are possible. A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled. Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

In order to draw some meaningful planning conclusions on hazard risk for Marion County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a *“Priority Risk Index” (PRI)*. More information on the *PRI* and how it was calculated can be found in *Section 5.16.2*.

Table F.23 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the *PRI*. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating *PRI* values and making final determinations for the risk assessment.

TABLE F.23: SUMMARY OF PRI RESULTS FOR MARION COUNTY

HAZARD	Category/Degree of Risk					
	Probability	Impact	Spatial Extent	Warning Time	Duration	PRI Score
Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/ Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/ High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Possible	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2

F.2.17 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Marion County, including the PRI results and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table F.24). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of Marion County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in *Section 6: Vulnerability Assessment* and below in *Section F.3*. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE F.24: CONCLUSIONS ON HAZARD RISK FOR MARION COUNTY

High Risk	<i>Drought/Heat Wave Hurricane and Tropical Storm Thunderstorm/ High Wind Tornado Flood Lightning Pandemic</i>
Moderate Risk	<i>Climate Change Hail Pipeline Incident Hazardous Materials Incident Wildfire Dam Failure Winter Storm and Freeze</i>
Low Risk	<i>Expansive Soil Landslide Meth Lab Incident Pandemic Erosion Cyber Attack</i>

F.3 MARION COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Marion County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact and expected amount of damages caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in Section 6: Vulnerability Assessment.

F.3.1 Asset Inventory

Table F.25 lists the estimated number of improved properties and the total value of improvements for Marion County and its participating jurisdictions (study area of vulnerability assessment). This data was obtained from HAZUS.

TABLE F.25: IMPROVED PROPERTY IN MARION COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Marion County	12,536	\$2,186,833,000

Table F.26 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Marion County. HAZUS was used to obtain the critical facilities for the county and this data was updated to reflect recent changes. In addition, **Figure F.8** shows the locations of essential facilities in Marion County. **Table F.27** shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

TABLE F.26: CRITICAL FACILITY INVENTORY IN MARION COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools
Columbia	1	2	0	0	5
Unincorporated Area	6	1	1	1	9
Marion County Total:	7	3	1	1	14

FIGURE F.8: CRITICAL FACILITY LOCATIONS IN MARION COUNTY

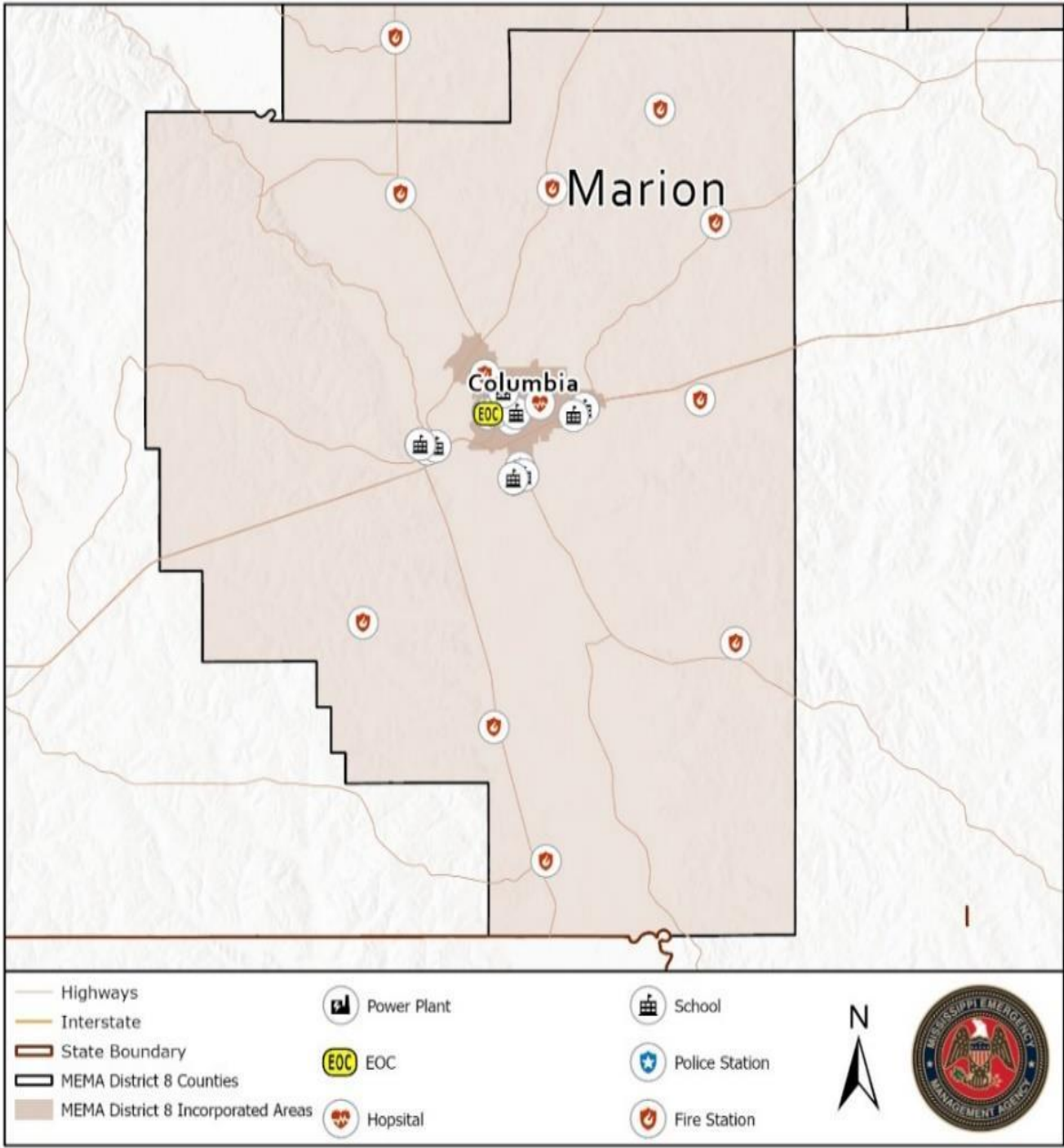


Table F.27 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an “X”).

TABLE F.27: AT-RISK CRITICAL FACILITIES IN MARION COUNTY

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood
Marion County Critical Facilities														
Columbia Academy	School	Non-burnable		X	X	X	X		X	X				
Columbia Elem. School	School	Non-burnable	X	X	X	X	X		X	X				
Columbia Fire Department	Fire Station	Moderate	X	X	X	X	X		X	X			X	
Columbia High School	School	Non-burnable	X	X	X	X	X		X	X				X
Columbia Police Dept	Police Station	Non-burnable	X	X	X	X	X		X	X			X	
Columbia Police Investigator	Police Station	Moderate	X	X	X	X	X		X	X			X	
Columbia Primary Sch.	School	Non-burnable	X	X	X	X	X	X	X	X				
East Columbia High School	School	Non-burnable		X	X	X	X		X	X				
East Marion Elem. School	School	Moderate		X	X	X	X		X	X				
East Marion High School	School	Moderate		X	X	X	X		X	X				
East Marian Primary Sch.	School	Moderate		X	X	X	X		X	X				
Jefferson Middle School	School	Non-burnable	X	X	X	X	X	X	X	X				
Marion CO VOC Complex	School	Non-burnable		X	X	X	X		X	X				
Marion County Civil Defense	Emer. Facility	HIGH			X	X	X		X	X				
Marion County Sheriff Dept	Police Station	Non-burnable	X	X	X	X	X		X	X				
Marion General Hospital	Care Facility	Non-burnable		X	X	X	X	X	X	X				
Pine Burr VFD	Fire Station	VERY HIGH			X	X	X		X	X				
Tri-Community VFD	Fire Station	HIGH			X	X	X		X	X				
Southwest Marion VFD	Fire Station	LOW			X	X	X		X	X				
Southwest Marion VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
West Marion Elementary	School	Non-burnable		X	X	X	X		X	X				
West Marion High School	School	Non-burnable		X	X	X	X		X	X				
West Marion Junior High	School	Non-burnable		X	X	X	X		X	X				
West Marion Primary	School	Non-burnable		X	X	X	X		X	X			X	
Southwest Marion VFD	Fire Station	Non-burnable		X	X	X	X		X	X				
Southwest Marion VFD	Fire Station	VERY HIGH			X	X	X		X	X				

F.3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Marion County that are potentially at risk to these hazards.

Table F.28 lists the population by jurisdiction according to U.S. Census 2020 population estimates. Unfortunately, estimates were not available at the census block level, limited the results to county-wide estimates. The total population in Marion County according to Census data is 24,441 persons. If the decline in population continues the population decrease could lead to a decline in the population vulnerability. Additional population estimates are presented above in *Section F.1*.

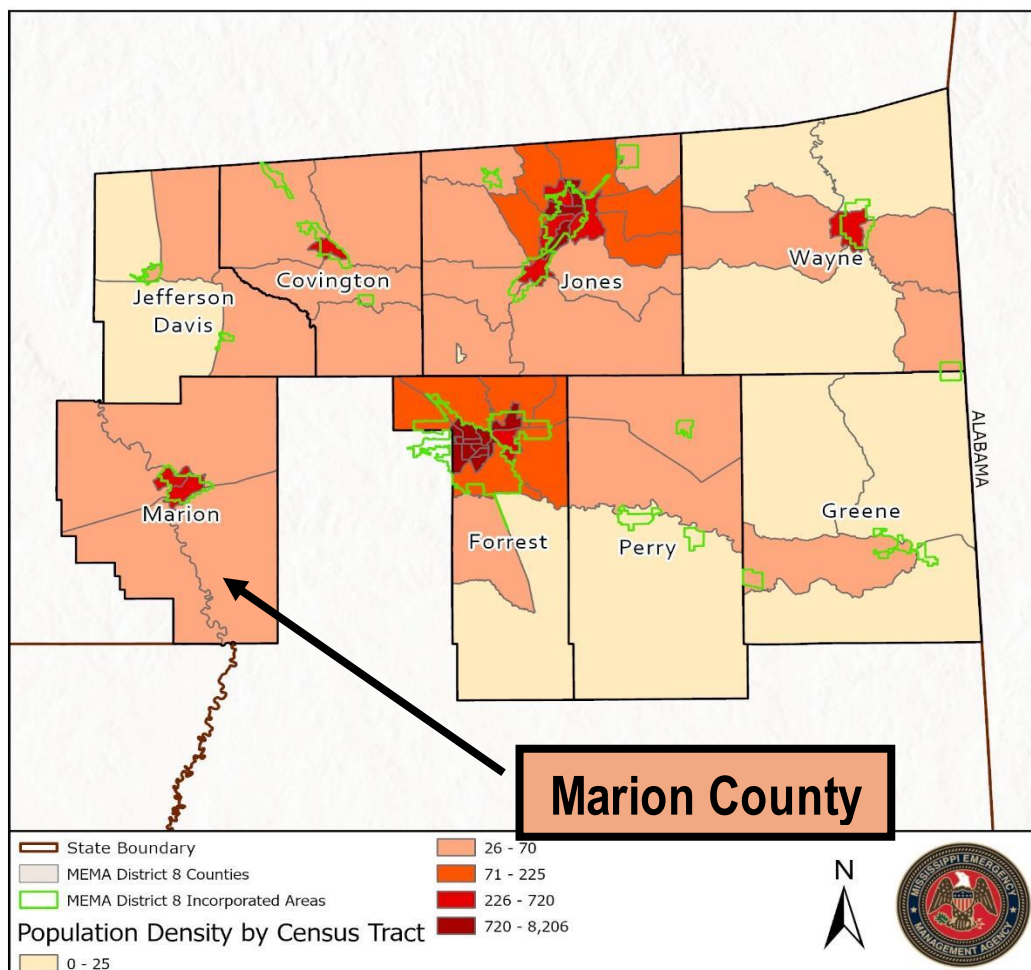
TABLE F.28: TOTAL POPULATION IN MARION COUNTY

Jurisdiction	2010 Census	2020 Census
Marion County	27,088	24,224
Columbia	6,582	5,864
Unincorporated Area	20,506	18,360

Source: US Census Bureau

In addition, **Figure F.12** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020. This information has not changed since the last plan update.

FIGURE F.12: POPULATION DENSITY IN MARION COUNTY



F.3.3 Vulnerability Assessment Results

As noted in *Section 6: Vulnerability Assessment*, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Marion County, are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table F.24**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

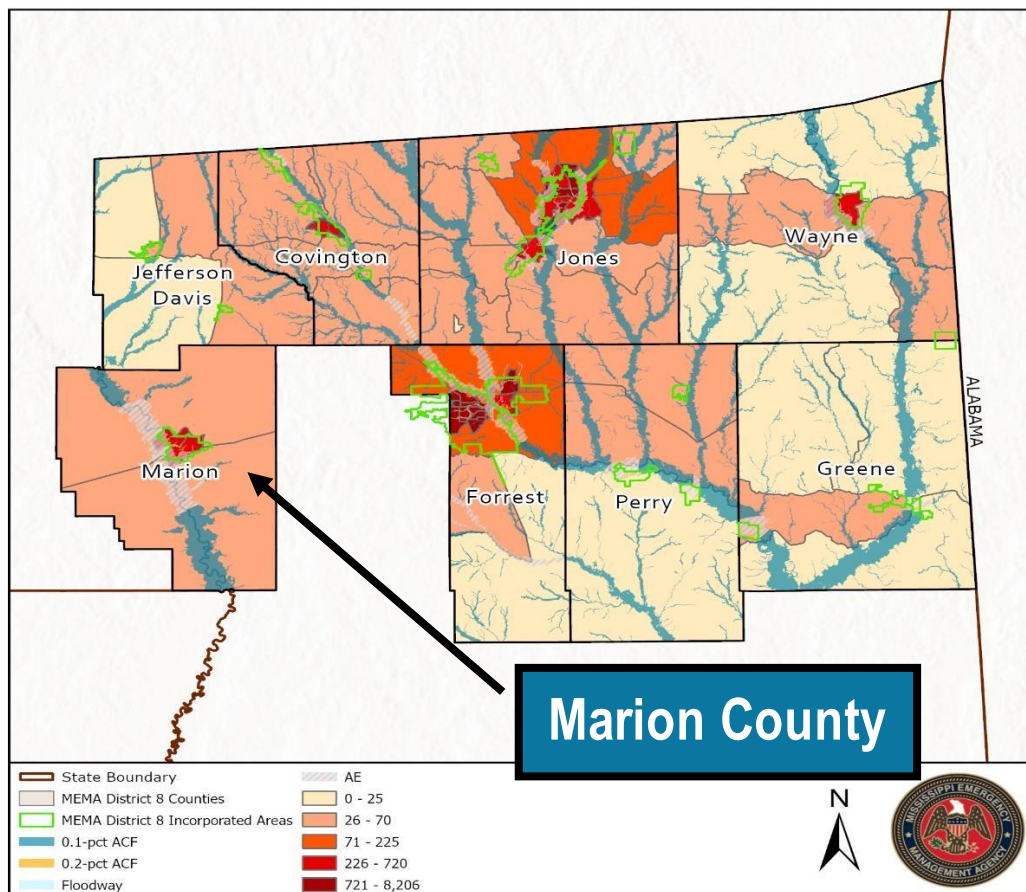
FLOOD

Historical evidence indicates that Marion County is susceptible to flood events. A total of 53 flood events have been reported by the National Centers for Environmental Information resulting in \$25.3 million in damages.

Social Vulnerability

Since 2020 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data. **Figure F.13** is presented to gain a better understanding of at-risk population.

FIGURE F.13: POPULATION DENSITY NEAR FLOODPLAINS



Critical Facilities

The critical facility analysis revealed that there are two critical facilities located in the Marion County 1.0-percent annual chance floodplain, valued at over 2.3M. There is one facility located in the 0.2-percent annual chance floodplain, based on FEMA DFIRM boundaries and GIS analysis, valued at over \$6.3M. A list of specific critical facilities and their associated risk can be found in **Table F.27**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Marion County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

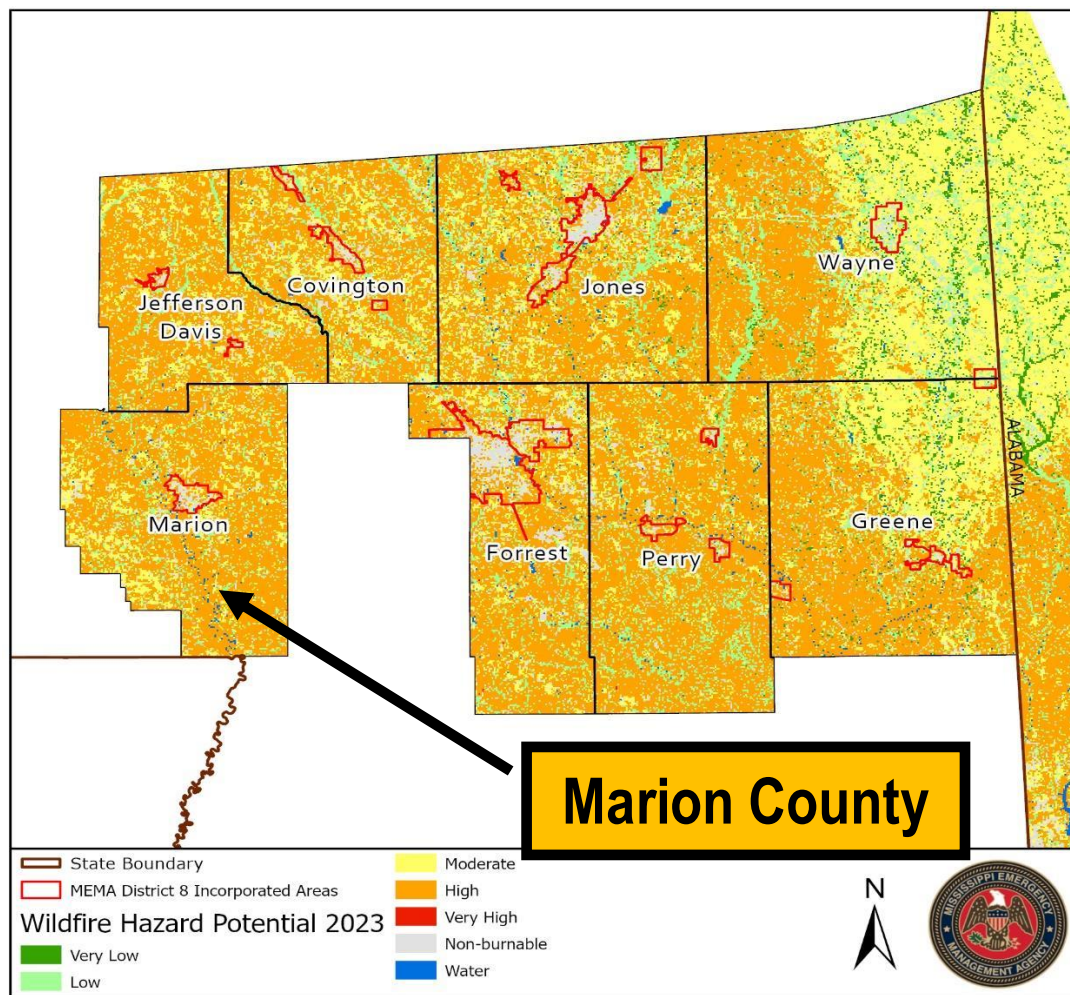
WILDFIRE

Although historical evidence indicates that Marion County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential (WHP) data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure F.14 shows the wildfire hazard potential for Marion County. Most of the planning areas falls within the low to high category.

FIGURE F.14: WILDFIRE RISK AREAS IN MARION COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there are five critical facilities located in an area considered moderate risk valued at nearly \$13.4M. There are two critical facilities located in an area considered high risk valued at \$850,000, and there is an additional structure located in an area considered very high risk. It should be noted, however, that several factors could impact the spread of a wildfire putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table F.27**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Marion County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 18 critical facilities identified for Marion County, valued at \$65,177,400. All are vulnerable to the earthquake hazard.

An earthquake has the potential to impact all existing and future buildings, facilities, and populations in Marion County. While Marion County may not experience a large earthquake, localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table F.27**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Marion County has an elevated risk to the hurricane and tropical storm hazard. Several tracks have come near or traversed through the county, as shown and discussed in *Section F.2.10*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There is an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amount of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of 2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Marion County, all critical facilities are considered to be at risk. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. There are 18 critical facilities identified for Marion County, valued at \$65,177,400. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation action for especially vulnerable and/or critical facilities to mitigation against the effects of the hurricane hazard. A list of specific critical facilities can be found in **Table F.27**.

HAZARDOUS MATERIALS INCIDENT

Although historical evidence and existing Toxic Release Inventory sites indicate that Marion County is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS analysis was used for fixed and mobile areas. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Marion County, along with buffers. The analysis revealed that there are no TRI sites located in Marion County. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis. The mobile toxic release buffer data did not change since the last plan update.

FIGURE F.15: TRI SITES WITH BUFFERS IN MARION COUNTY

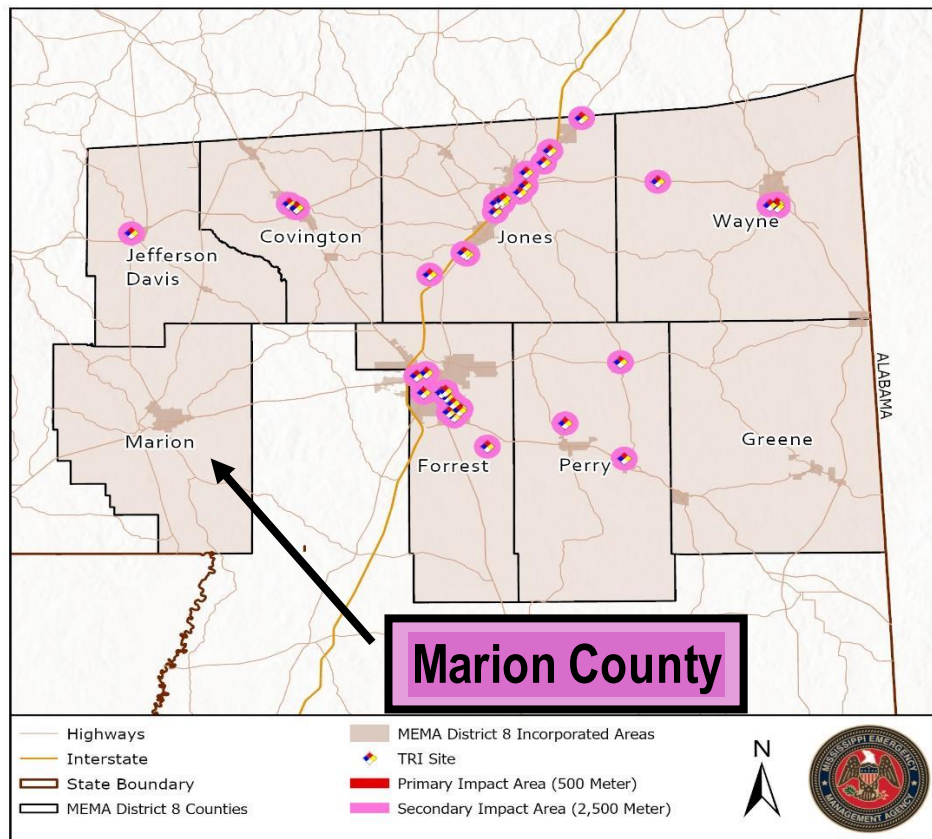
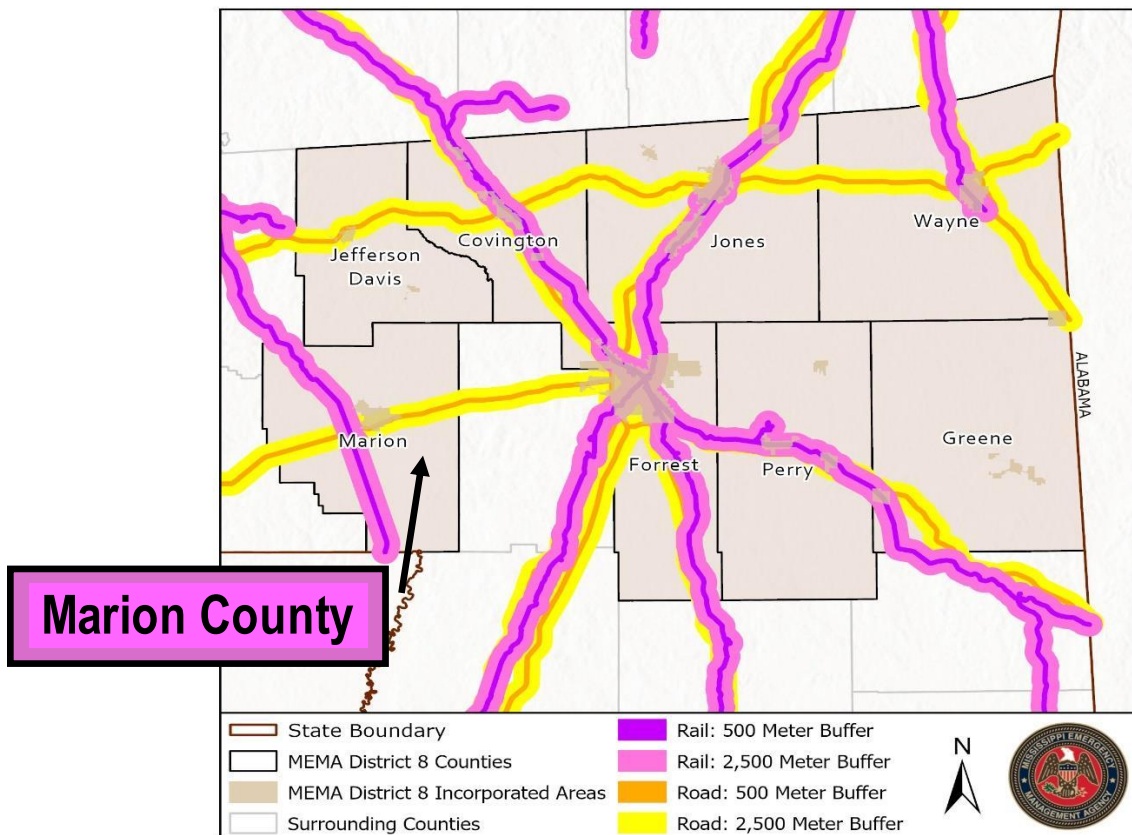


FIGURE F.15: MOBILE HAZMAT BUFFERS IN MARION COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden to evacuate population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there were no critical facilities that would be impacted by only the 500M HAZMAT risk zone. There are 8 critical facilities that would be impacted by the 2500M HAZMAT risk zone, valued at over \$26.8M. A list of specific critical facilities and their associated risk can be found in **Table F.27**.

Mobile Analysis:

The critical facility analysis for transportation corridors in Marion County revealed that there is one critical facility located in the 500M Highway mobile HAZMAT buffer areas valued at over \$5.2M, and there are 5 critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$6.5M.

Expanding to a 2500M HAZMAT risk zone reveals that there are 14 critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable, valued at nearly \$60M. There are 9 critical facilities located in the railway mobile HAZMAT buffer area that are vulnerable, valued at approximately \$40M. A list of specific critical facilities and their associated risk can be found in **Table F.27**.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Marion County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

F.4 MARION COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Marion County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in *Section 7: Capability Assessment*.

F.4.1 Planning and Regulatory Capability

Table F.29 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Marion County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE F.29: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Marion County	Columbia
Hazard Mitigation Plan	✓	✓
Comprehensive Land Use Plan		✓
Floodplain Management Plan		
Open Space Management Plan	✓	✓
Stormwater Management Plan/Ordinance		
National Resource Protection Plan		
Flood Response Plan		
Emergency Operations Plan	✓	✓
Continuity of Operations Plan	✓	
Evacuation Plan		
Disaster Recovery Plan		
Capital Improvements Plan		
Economic Development Plan	✓	✓
Historic Preservation Plan		
Flood Damage Prevention Ordinance	✓	✓
Zoning Ordinance		✓
Subdivision Ordinance	✓	✓
Unified Development Ordinance		
Post-Disaster Redevelopment Ordinance		
Building Codes	✓	✓
Fire Codes		
National Flood Insurance Program (NFIP)	✓	✓
National Community Rating System		

A more detailed discussion on the county's planning and regulatory capabilities follows.

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Marion County has previously adopted a hazard mitigation plan. The City of Columbia was also included in this plan.

Emergency Operations Plan

Marion County maintains an emergency operations plan through its Emergency Management Agency. The City of Columbia is also covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Marion County has not adopted a county comprehensive land use plan. However, the City of Columbia adopted a city comprehensive plan in 1970.

Zoning Ordinance

Marion County does not have a zoning ordinance in place. However, the City of Columbia has a zoning ordinance that was adopted in 1970.

Subdivision Ordinance

Marion County adopted rather extensive subdivision regulations in 2005. The City of Columbia also adopted subdivision regulations in 1969 and amended the ordinance in 1980.

Building Codes, Permitting, and Inspections

Marion County has not adopted a building code. However, the City of Columbia has adopted a building code.

FLOODPLAIN MANAGEMENT

Table F.30 provides NFIP policy and claim information for each participating jurisdiction in Marion County.

TABLE F.30: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
Marion County†	9/28/1979	10/18/2019	189	\$29,435,100	248	\$2,337,509
Columbia	9/28/1979	10/18/2019	197	\$27,315,800	303	\$3,612,752

†Includes unincorporated areas of county only

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Marion County and the City of Columbia both participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Marion County and the City of Columbia are both included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

F.4.2 Administrative and Technical Capability

Table F.31 provides a summary of the capability assessment results for Marion County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE F.31: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Marion County	Columbia
Planners with knowledge of land development/ land management practices		
Engineers of professionals trained in construction practices related to buildings and/or infrastructure	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards.		
Emergency Manager	✓	✓
Floodplain Manager	✓	✓
Land Surveyors		
Scientists familiar with the hazards of the community.	✓	✓
Staff with education or expertise to assess the community's vulnerability to hazards.	✓	✓
Personnel skilled in GIS and/or HAZ-US	✓	✓
Resource development staff or grant writers		

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

F.4.3 Fiscal Capability

Table F.32 provides a summary of the results for Marion County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE F.32: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Marion County	Columbia
Capital Improvement Programing	✓	✓
Community Development Block Grants (CDBG)	✓	✓
Special Purchase Taxes (or taxing districts)		
Gas/ Electric Utility Fees		
Water/ Sewer Fees		
Stormwater Utility Fees		
Development Impact Fees		
General Obligation, Revenue, and/or Special Tax Bonds		
Partnering Arrangements or Intergovernmental Agreements	✓	✓

F.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Marion County is more likely to shift in support of hazard mitigation efforts.

F.5 MARION COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Marion County to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability assessment and risk assessment. Additional Information can be found in *Section 8: Mitigation Strategy* and *Section 9: Mitigation Action Plan*.

F.5.1 Mitigation Goals

Marion County developed five mitigation goals in coordination with the other participating *MEMA District 8 Region jurisdictions*. The regional mitigation goals are presented in **Table F.33**.

TABLE F.33: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

Goal	
Goal #1	Develop a sustainable, comprehensive mitigation program to ensure safer communities.
Goal #2	Reduce or avoid loss of life, injury, and damage to property, the economy, and the environment.
Goal #3	Enhance preparedness and effective response to hazards.
Goal #4	Strengthen and improve local mitigation capabilities.
Goal #5	Increase public awareness of hazard mitigation, hazard risk, and protective measures that can be taken to minimize potential loss and damage.

F.5.2 Mitigation Action Plan

The mitigation actions proposed by Marion County and the City of Columbia are listed in the following individual Mitigation Action Plans.

Marion County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No Cost	County	Annual Review	Complete. (High risk areas are identified in the hazard mitigation plan), Ongoing
P-2	Site-locate vulnerable population on a County - wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., COPS, FIRE	TBD	MCEMA, County	Upon request	Ongoing (the County is currently working to develop a GIS shapefile that identifies the vulnerable populations in the County)
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	TBD	County Floodplain Admin.	Ongoing	Ongoing
P-4	Strictly enforce subdivision regulations concerning developments in flood hazard areas.	FL	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	Unknown	County BOS	Ongoing	Ongoing
P-5	Continue to maintain and upgrade drainage facilities.	HI, TS, FL, BH	High	CDBG, HMGP, PDM, USDA Rural Dev., self-funding	Unknown	County BOS, County Road Crews	Annual Review	Ongoing as funding becomes available
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	No Additional Cost	County	Ongoing	Ongoing/ Pending staff availability and funding
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Ongoing/ Pending staff and funding
P-10	Incorporate the hazard mitigation plan into the comprehensive plan.	All	Medium	N/A	No Additional Cost	County	Concurrent with prep. of Comp Plan	Ongoing/ Pending staff availability and funding
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-Funded	No Additional Cost	County	Ongoing	Pending staff availability and funding
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	TBD	County	Ongoing	Ongoing for construction in the Floodplain
PP-3	Ensure that new public buildings are designed and built to hurricane resistant buildings codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	CDBG, HMGP, PDM, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding
PP-5	Ensure secure operation of water wells and wastewater treatment facilities.	All	High	HMGP, USDA Rural Dev., CDBG, Small Muni. Grant	Unknown	County	Ongoing	Ongoing

Natural Resource Protection

NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	TBD	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing/ Pending Funding availability
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Emergency Services

ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded, MEMA	Low or no Cost	MCCEMA	Ongoing	Ongoing pending staff availability and funding
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	TBD	MCCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	TBD	MCCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-4	Explore potential sites for a new special needs shelter.	TO, HU, TS, FL	High	HMGP	TBD	MCCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-5	Improve disaster communication systems within the county.	All	High	CDBG, HMGP, PSM, USDA Rural Dev., Self-funded	TBD	MCCEMA	Ongoing	Ongoing/ Pending staff availability and funding
ES-6	Consider generators for local radio station service areas.	TO, HU, TS	High	HMGP	TBD	MCCEMA	Contingent upon funding	Pending funding
ES-7	Install warning sirens.	TO, HU, TS	High	HMGP	\$350,000-\$400,000	MCCEMA	Contingent upon funding	Pending funding
ES-8	Enhance Central Dispatch.	All	Medium	HMGP	Unknown	MCCEMA, County	Ongoing	Completed/ Ongoing
ES-9	Explore potential to install Reverse 911 system.	All	Low to Medium	HMGP	Unknown	MCCEMA, County	Contingent upon funding	Ongoing/ Pending staff availability and funding
ES-10	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	TBD	County BOS, MCCEMA	Annual Review	Ongoing
ES-11	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	Unknown	County	Ongoing	Ongoing
ES-12	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	HMGP	Unknown	County	Ongoing	Ongoing Pending funding
ES-13	Develop a government services continuity plan.	All	Medium	USDA Rural Dev., CDBG, Small Muni. Grant	Unknown	County	Annual Review	Completed/ Ongoing
ES-14	Host a meeting to review Marion County Comprehensive Emergency Management Plan	TT	Medium	N/A	No Additional Cost	County	Annual Review	Ongoing
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding

Structural Projects

SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Additional Cost	County	Ongoing	Ongoing
SP-2	Generators for all existing and future fire stations and 911 critical facilities including comm tower sites	All	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-funded	TBD	MCEMA, County	Ongoing	Ongoing
SP-3	Elevation/Acquisition Rep Loss properties	FL	Medium to High	HMGP, PDM	TBD	MCEMA, County	Ongoing	Ongoing
SP-4	Harden existing structures to serve as safe rooms (schools, emergency shelters).	All	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-funded	TBD	MCEMA, County	Ongoing	Ongoing
SP-5	Construct community multipurpose facilities/saferooms in vulnerable communities throughout the county.	All	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-funded	TBD	MCEMA, County	Ongoing	Ongoing

Public Education and Awareness

PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, MEMA	Low Cost	County	Ongoing	Ongoing pending funding
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	TBD	MCEMA	Annual Review	Ongoing
PEA-3	Encourage the development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	MCEMA	Annually	Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple	High	Self-funded	TBD	MCEMA, County	Upon Request	Ongoing
PEA-5	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	TBD	County	Annual Review	Ongoing

FL = Flood

HU = Hurricane

TS = Tropical Storm

TO = Tornado

TH = Thunderstorm

BH = Biological Hazards

HW = High Winds

TT = Transportation and Technological Hazards

RH = Roadway Hazards

CH = Civil Hazards

P = Pandemic

MCEMA = Marion County Emergency Management Agency

County BOS = Marion County Board of Supervisors

The City of Columbia Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No Cost	County	Annual Review	Complete. (High risk areas are identified in the hazard mitigation plan), Ongoing
P-2	Site-locate vulnerable population on a County - wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., COPS, FIRE	TBD	MCCEMA, County	Upon request	Ongoing (the County is currently working to develop a GIS shapefile that identifies the vulnerable populations in the County)
P-3	Strictly enforce the flood damage prevention ordinance.	FL	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	TBD	County Floodplain Admin.	Ongoing	Ongoing
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P-5	Continue to maintain and upgrade drainage facilities.	HI, TS, FL, BH	High	CDBG, HMGP, PDM, USDA Rural Dev., self-funding	Unknown	County BOS, County Road Crews	Annual Review	Ongoing as funding becomes available
P-6	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/Pending staff availability and funding
P-7	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing/Pending staff availability and funding
P-8	Support the development of a shared geographic data system for land use and site planning.	All	Medium to High	CDBG, HMGP, PDM, USDA Rural Dev., Self-Funding	No Additional Cost	County	Ongoing	Ongoing/ Pending staff availability and funding
P-9	Develop a comprehensive development plan.	All	High	CDBG, MSDA	Unknown	County	Ongoing	Ongoing/ Pending staff and funding
P-10	Incorporate the hazard mitigation plan into the comprehensive plan.	All	Medium	N/A	No Additional Cost	County	Concurrent with prep. of Comp Plan	Ongoing/ Pending staff availability and funding

Property Protection

PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-Funded	No Additional Cost	County	Ongoing	Pending staff availability and funding
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	TBD	County	Ongoing	Ongoing for construction in the Floodplain
PP-3	Ensure that new public buildings are designed and built to hurricane resistant buildings codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Ongoing
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Natural Resource Protection

NRP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	TBD	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing/ Pending Funding availability
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded, MEMA	Low or no Cost	MCEMA	Ongoing	Ongoing pending staff availability and funding
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	TBD	MCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HMGP	TBD	MCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-4	Explore potential sites for a new special needs shelter.	TO, HU, TS, FL	High	HMGP	TBD	MCEMA, County	Ongoing	Ongoing/ Pending staff availability and funding
ES-5	Improve disaster communication systems within the county.	All	High	CDBG, HMGP, PSM, USDA Rural Dev., Self-funded	TBD	MCEMA	Ongoing	Ongoing/ Pending staff availability and funding
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ES-8	Enhance Central Dispatch.	All	Medium	HMGP	Unknown	MCEMA, County	Ongoing	Completed/ Ongoing
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ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Ongoing/ Pending staff availability and funding
Structural Projects								
	Address cross-jurisdictional issues related to response, recovery and	HU, TS, FL, RH	Low to Medium	Self-funded	No Additional	County	Ongoing	Ongoing

SP-1	mitigation on key projects with overlapping boundaries.				Cost			
SP-2	Generators for all existing and future fire stations and 911 critical facilities including comm tower sites	All	High	CDBG, HMGP, PDM, USDA Rural Dev., Self-funded	TBD	MCEMA, County	Ongoing	Ongoing
SP-3	Elevation/Acquisition Rep Loss properties	FL	Medium to High	HMGP, PDM	TBD	MCEMA, County	Ongoing	Ongoing
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Public Education and Awareness								
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PEA-3	Encourage the development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	MCEMA	Annually	Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple	High	Self-funded	TBD	MCEMA, County	Upon Request	Ongoing
PEA-5	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	TBD	County	Annual Review	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic MCEMA = Marion County Emergency Management Agency County BOS = Marion County Board of Supervisors								

Annex G

Perry County

This annex includes jurisdiction-specific information for Perry County and its participating municipalities. It consists of the following five subsections:

- ★ G.1 Perry County Community Profile
- ★ G.2 Perry County Risk Assessment
- ★ G.3 Perry County Vulnerability Assessment
- ★ G.4 Perry County Capability Assessment
- ★ G.5 Perry County Mitigation Strategy

G.1 PERRY COUNTY COMMUNITY PROFILE

G.1.1 Geography and the Environment

Perry County is located in southeastern Mississippi. It comprises three towns, the Town of Beaumont, the Town of New Augusta, and the Town of Richton, as well as several small unincorporated communities. An orientation map is provided as **Figure G.1**.

The county is located in the long-leaf pine belt and is rural in nature with commercial forests covering 84 percent of the land area. The principal streams are the Leaf River, Black Creek, and both their numerous tributaries. The prevailing timber found in Perry County is the long leaf pine, but on the rivers and creeks, oaks, hickory, poplar, magnolia, gums, and cypress are found. The total area of the county is 650 square miles, 3 square miles of which is water area.

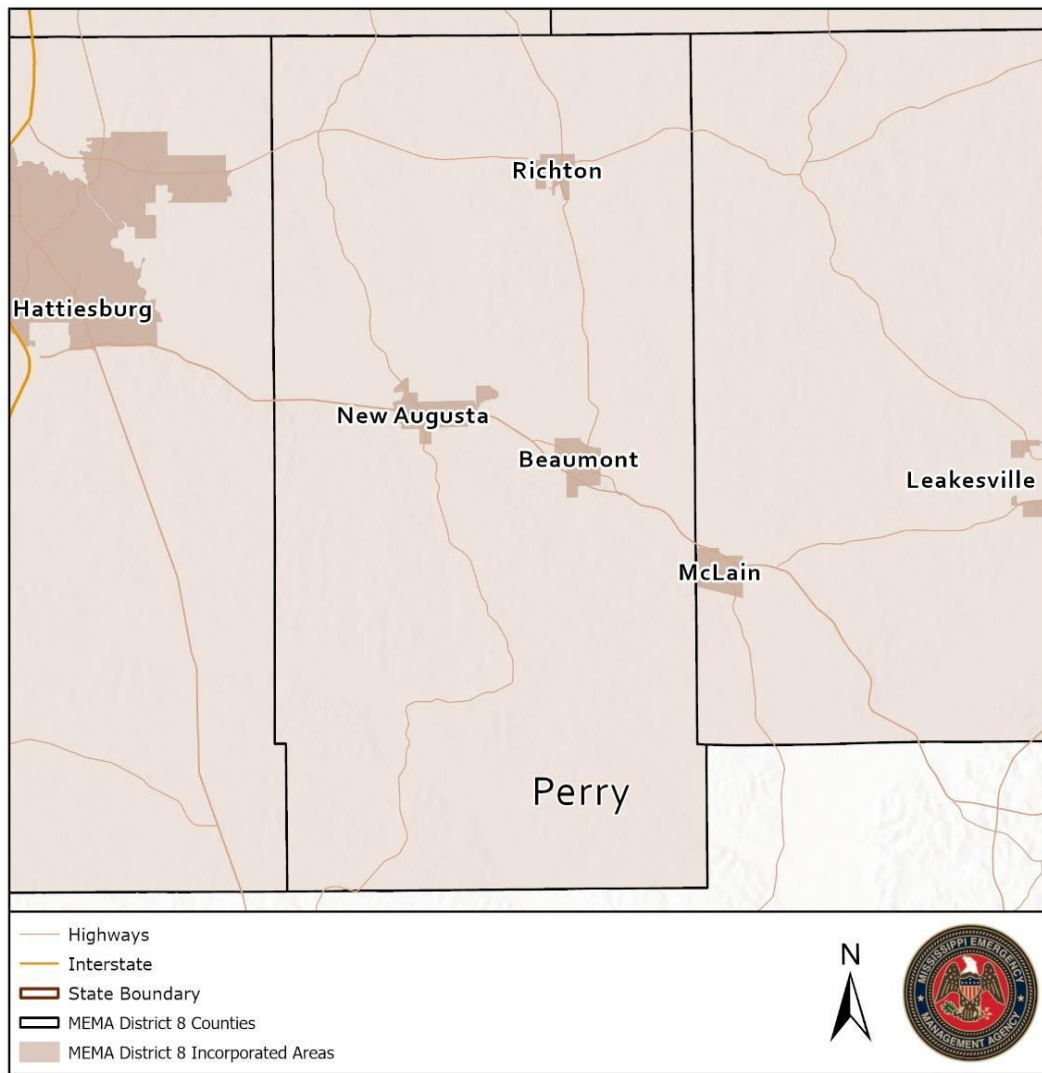
In Perry County, the summers are long, hot, and oppressive; the winters are short and cold; and it is wet and partly cloudy year-round. Over the course of the year, the temperature typically varies from 40°F to 92°F and is rarely below 30°F or above 97°F.

The hot season lasts for 5 months, from May through September, with an average daily high temperature above 85°F. The hottest day of the year is August 10, with an average high of 92°F and low of 73°F. The cool season lasts for 3 months, from December through February, with an average daily high temperature below 64°F. The coldest day of the year is January 17, with an average low of 40°F and high of 60°F.

A wet day is one with at least 0.04 inches of liquid or liquid-equivalent precipitation. The chance of wet days in New Augusta varies significantly throughout the year. The wetter season lasts 6 months, from March through August, with a greater than 38% chance of a given day being a wet day. The chance of a wet day peaks at 56% on July 26. The drier season lasts 3.0 months, from September through November. The smallest chance of a wet day is 20% on October 9. Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 56% on July 26.

Rain falls throughout the year in Perry County. The most rain falls during the 31 days centered around March 15, with an average total accumulation of 5.4 inches. The least rain falls around October 6, with an average total accumulation of 3.1 inches.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	58	63	71	77	85	91	92	92	88	80	68	61
Average Lows	40	45	51	56	64	71	73	73	69	59	48	45
Average Rainfall	4.8 in.	5.2 in.	6.1 in.	5.6 in.	5.7 in.	5.4 in.	6.2 in.	6.6 in.	4.5 in.	3.5 in.	3.5 in.	6.5 in.

FIGURE G.1: PERRY COUNTY ORIENTATION MAP

G.1.2 Population and Demographics

According to the 2020 Census, Perry County has a population of 11,511 people. The county has seen a decline in population between 2010 and 2020 which could lead to a decrease in vulnerability if the trend continues. The population density is 18 people per square mile. Per the Census Reports, in 2023, Perry County had a population of 11,315 which is a 1.7 percent decline from 2020. The household income is \$48,333, which grew 27 percent. Population counts from the US Census Bureau for 2010, and 2020 for the county and both of the participating jurisdictions are presented in **Table G.1**. Estimates for 2023 are also included.

TABLE G.1: POPULATION COUNTS FOR PERRY COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2023 Estimate
Perry County	12,250	11,511	-6%	11,315
Beaumont	951	669	-30%	653
New Augusta	644	554	-14%	542
Richton	1068	920	-14%	903

Source: US Census Bureau

Based on the 2020 Census, the median age of residents of Perry County rose from 38.7 years to 40.7 years. The racial characteristics of the county are presented in **Table G.2** and will remain the same as the census data has not been officially updated. Due to the population decrease, the racial characteristics differ slightly. The population is 19 percent for black or African American persons, 2 percent Hispanic or Latino. Whites make up the majority of the population in the county, accounting for 78 percent of the population.

TABLE G.2: DEMOGRAPHICS OF PERRY COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Perry County	78%	19%	1%	0%	2%
<i>Beaumont</i>	51%	46%	1%	0%	2%
<i>New Augusta</i>	55%	41%	1%	1%	2%
<i>Richton</i>	70%	28%	0%	1%	1%

Source: NCED/NOAA

TABLE G.3: AVERAGE INCOME AND HEALTH IN PERRY COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below The Poverty Level
Perry County	30%	14%	\$48,333	21%
<i>Beaumont</i>	58%	32%	\$75,071	22%
<i>New Augusta</i>	21%	15%	Unknown	42%
<i>Richton</i>	23%	6 %	\$33,621	21%

Source: US Census Bureau

G.1.3 Housing

According to the 2020 US Census, there are 5,426 housing units in Perry County, the majority of which are single family homes or mobile homes. The median home value is \$126,400, which also increased by at least 35 percent. The total population and housing units both show a decline which could lead to a decrease in overall vulnerability-based development. Although the increase of property values could balance out the vulnerability. Housing information for the county and three towns is presented in **Table G.4**.

TABLE G.4: HOUSING CHARACTERISTICS OF PERRY COUNTY

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2020)	Median Home Value (2020)
Perry County	5519	\$82,200	5426	\$126,400
<i>Beaumont</i>	461	\$53,100	390	\$211,100
<i>New Augusta</i>	319	\$69,200	295	\$90,700
<i>Richton</i>	463	\$67,800	429	\$145,800

Source: US Census Bureau

G.1.4 Infrastructure

TRANSPORTATION

Major highways in the county are US Highway 98, running east and west, and State Highways 15, 29, and 42. These major arteries provide adequate access to regional urban centers, including Hattiesburg to the West and Mobile, Alabama to the southeast.

The Richton/Perry County Airport provides limited local service and regional air travel connections are available through Pine Belt Regional Airport in the Laurel/Hattiesburg area.

Rail service to the area is provided by Canadian, National/Illinois, and Central Railroads, but there is no passenger service offered at this time.

UTILITIES

Electrical power in Perry County is provided by several sources, primarily Dixie Electric Power Association (EPA), Singing River EPA, Mississippi Power Company, Pearly River Valley EPA, and South Mississippi EPA.

The unincorporated areas of the county are not served by centralized water or wastewater systems. Each site and/or structure must provide its own septic system. Large portions of the county are served by various rural water associates, but some areas not served by any water systems. In these areas, residences, businesses, and school area served by private wells. Water and sewer services are provided to residents of the Towns of Beaumont and Richton by a system of water wells and wastewater lagoons.

COMMUNITY FACILITIES

There are a number of buildings and community facilities located throughout Perry County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are 2 fire stations, 3 police stations, and 7 public schools located within the county.

There is one hospital located in Perry County. Perry County General Hospital is a 22-bed medical-surgical hospital located in the Town of Richton.

Recreational opportunities in Perry County are enhanced by the proximity of the De Soto National Forest, Lake Perry, Leaf River Game Management Area, Moody's Landing, Janice Landing, Fairley Bridge Landing, Cypress Creek Landing, and Sportsman's Lake. The county also has ball fields, camping, fishing, hunting, swimming, tennis, water sports, and a State Park. Golf, tennis, and ball fields are available in the Town of Richton, and Beaumont and New Augusta both have ball fields and tennis courts as well.

G.1.5 Land Use

Many areas of Perry County are undeveloped or sparsely developed due to the county's location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region's population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

G.1.6 Employment and Industry

According to the Mississippi Employment Security Commission, in 2024 Perry County had an average annual employment of 2,220 workers and an average unemployment rate of 6.0 percent. According to the MESCC, in 2024, Government Agencies employed 26.6 percent of the workforce followed by Manufacturing (25.7 %) and Health Care and Social Assistance (14.9%). The average annual wage in Perry County was \$48,333.

G.2 PERRY COUNTY RISK ASSESSMENT

This subsection includes hazard profiles for each of the significant hazards identified in *Section 4: Hazard Identification* as they pertain to Perry County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in *Section 5: Hazard Profiles*.

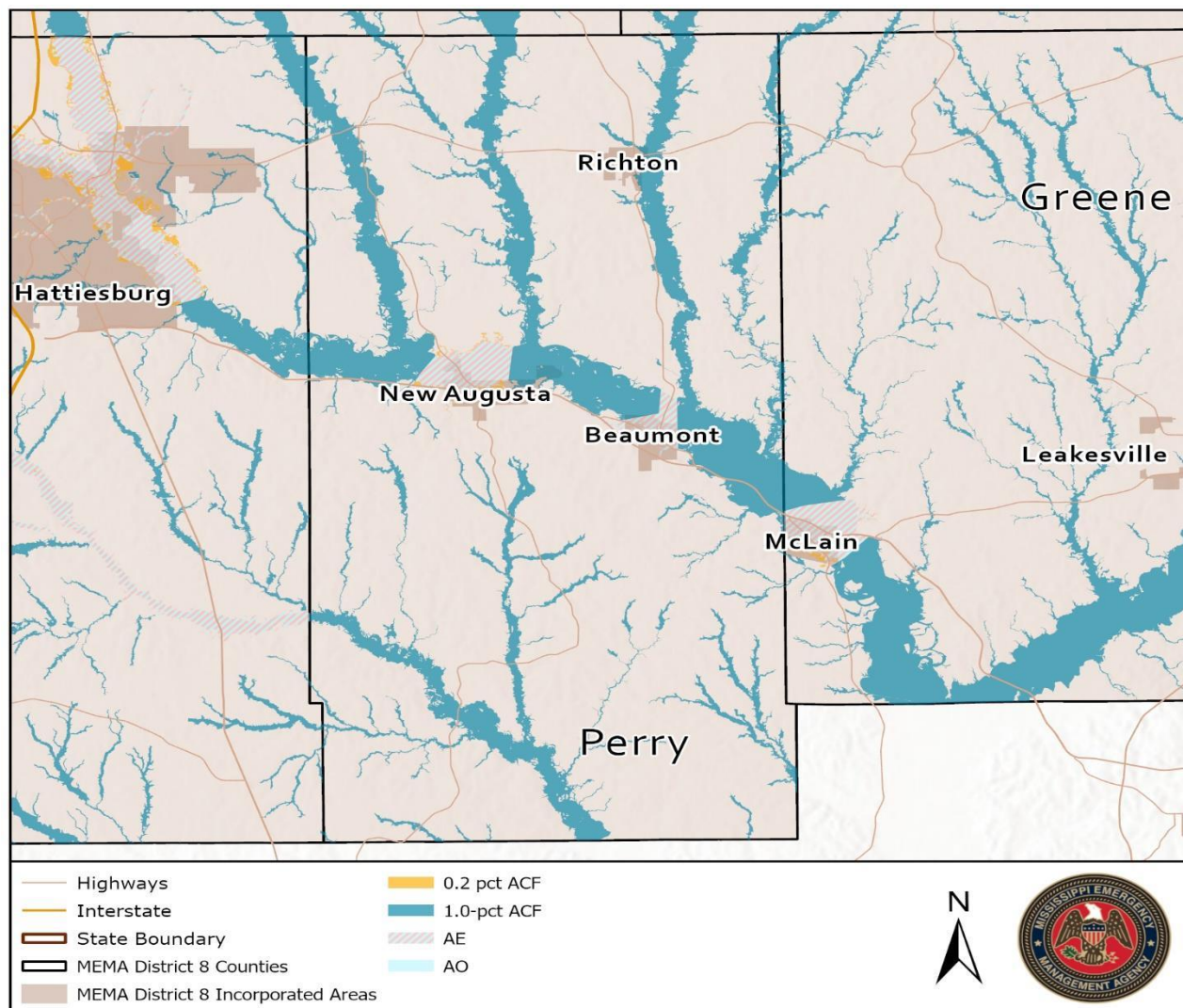
G.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Perry County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain). According to GIS analysis, of the 652 square miles that make up Perry County, there are 115 square miles of land in zones A and AE (1-percent annual chance floodplain/100-year floodplain) and 1 square mile of land in the 0.2-percent annual chance floodplain (500-year floodplain).

These flood zone values account for 17.8 percent of the total land area in Perry County. It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood-related losses often do occur outside of delineated special flood hazard areas.

FIGURE G.2: SPECIAL FLOOD HAZARD AREAS IN PERRY COUNTY



HISTORICAL OCCURRENCES

Floods resulted in seven disaster declarations in Perry County in 1974, 1983, 1990, 2013, 2016, 2017, and 2018. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National Centers for

Environmental Information reported a total of 27 events in Perry County since 2000. A summary of these events is presented in **Table G.5**. These events accounted for almost \$2 Million in property damage in the county. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table G.6 & G.7**.

TABLE G.5: SUMMARY OF FLOOD OCCURRENCES IN PERRY COUNTY

LOCATION	Number of Occurrences	Deaths	Injuries	Property Damage	Crop Damage
<i>Beaumont</i>	1	0	0	\$0	\$0
<i>New Augusta</i>	3	0	0	\$50,000	\$0
<i>Richton</i>	4	0	0	\$15,000	\$0
<i>Unincorporated Area</i>	19	0	0	\$1,897,000	\$0
Perry County Total:	27	0	0	\$1,962,000	\$0

TABLE G.6: HISTORICAL FLOOD EVENTS IN PERRY COUNTY

Location	Date	Type	Deaths	Injuries	Property Damage
The Town of Beaumont					
<i>Beaumont</i>	10/22/2007	Flash Flood	0	0	\$0
The Town of New Augusta					
<i>New Augusta</i>	3/11/2016	Flash Flood	0	0	\$50,000
<i>New Augusta</i>	8/9/2017	Flash Flood	0	0	\$0
<i>New Augusta</i>	5/11/2019	Flash Flood	0	0	\$0
The Town of Richton					
<i>Richton</i>	6/28/2000	Flash Flood	0	0	\$0
<i>Richton</i>	4/13/2009	Flash Flood	0	0	\$15,000
<i>Richton</i>	2/4/2010	Flash Flood	0	0	\$0
<i>Richton</i>	3/9/2011	Flash Flood	0	0	\$0
Unincorporated Area in Jones County					
<i>County Wide</i>	3/3/2001	Flash Flood	0	0	\$30,000
<i>South Portion of the County</i>	10/28/2002	Flash Flood	0	0	\$0
<i>County Wide</i>	6/30/2003	Flash Flood	0	0	\$0
<i>Janice</i>	5/12/2004	Flash Flood	0	0	\$0
<i>County Wide</i>	8/29/2005	Flash Flood	0	0	\$0
<i>Janice</i>	12/21/2006	Flash Flood	0	0	\$5,000
<i>Runnelstown</i>	4/5/2008	Flash Flood	0	0	\$0
<i>Janice</i>	9/1/2008	Flash Flood	0	0	\$2,000
<i>Mahned</i>	12/14/2009	Flash Flood	0	0	\$0
<i>Runnelstown</i>	3/9/2011	Flash Flood	0	0	\$0
<i>Janice</i>	3/22/2012	Flash Flood	0	0	\$0
<i>Tallahala</i>	3/11/2016	Flash Flood	0	0	\$50,000
<i>Tallahala & Runnelstown</i>	4/14/2016	Flash Flood	0	0	\$0
<i>Hintonville</i>	12/27/2018	Flash Flood	0	0	\$1,800,000

Janice & Belleville	5/11/2019	Flash Flood	0	0	\$10,000
Janice	10/28/2020	Flash Flood	0	0	\$0
Tallahala	6/6/2021	Flash Flood	0	0	\$0
Runnelstown	2/3/2022	Flash Flood	0	0	\$0
Rhodes	8/24/2022	Flash Flood	0	0	\$0

Source: NCED/NOAA

The text below describes two of the major events and associated impacts on the county. Similar impacts can be expected with flash flooding.

March 11, 2016—Slow moving thunderstorms produced heavy rain and flooding across southeast Mississippi. Heavy rain caused water to enter a building at the elementary school. Several roads closed across the northern portion of the Perry County.

December 28, 2018—Significant flash flooding occurred in the northeast part of Perry County, particularly in the town of Richton. In Richton, a dozen businesses were flooded. Water was knee deep in some businesses. At the height of the flash flooding, 15 people were rescued from a low-lying apartment complex in Richton. In total for Perry County, over a dozen homes experienced major flood damage. Numerous roads were flooded and closed. One public road was destroyed by the flash flooding with 5 other roads experiencing major damage. Twelve other roads had minor flood damage. Perry County EMA estimated damages of \$300,000 to residences and business and \$1.5 million in infrastructure damage.

TABLE G.7: EXTENT: FLOOD EVENTS IN PERRY COUNTY SINCE THE LAST UPDATE

Perry County: \$10,000					
Location	Date	Loss	Cause	Impact	
New Augusta & County	5/11/2019	\$10,000	A stalled front just to the northwest of the area combined with several upper-level disturbances moving across created several rounds of heavy rain.	• In the county, Lake Road was closed due to a possible washout. Janice Brooklyn Road was closed due to flooding. Water over several road including Bailey Road, McKenzie Road and Old River Road. • Flooding along Benndale Road in Janice. • Water over the Wingate Road near New Augusta School.	
Janice	10/28/2020	\$0	Hurricane Zeta made landfall in southeast Louisiana during the late afternoon hours. It brought heavy rain that led to flash flooding.	• Perry County MS: The county experienced sustained strong tropical storm force winds with frequent gusts to hurricane force. This resulted in significant tree and power line damage. Numerous to widespread power outages were reported. 36 homes were damaged, experiencing either roof damage or damage due to downed trees. • Two roads washed out due to flash flooding.	
Tallahala	6/6/2021	\$0	Strong thunderstorm developed in southeast Mississippi and produced locally heavy rain along with strong wind gusts that caused some damage.	Heavy rain caused pumping station road to be closed due to culverts washing out.	
Runnelstown	2/3/2022	\$0	Heavy rain from slow moving storms also caused flooding in some areas.	Heavy caused water to cover the road on Buck Creek Loop, Henry James Road and Corinth Church Road.	
Rhodes	8/24/2022	\$0	A very favorable pattern for heavy rain combined with already wet ground conditions led to development of heavy rain and flooding across the area.	Heavy rains caused water to cover the road on Good Hope Church Road.	

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES

Recently, FEMA issued a directive that prevents states or state planners from receiving NFIP information such as rep loss or severe rep loss data directly from FEMA. Only local jurisdictions may request the information from FEMA and share it with state planners. The state planners requested the information from the local jurisdictions on several occasions. As a result, for

continuity of information of the historical occurrences along with the corresponding damage amounts that are unknown for some of the local jurisdictions the decision was made to leave the existing information in the plan for the Jurisdictions did not provide the requested information and to update the information for jurisdictions that provided the requested information.

According to FEMA flood insurance policy records as of March 2023, there have been 67 flood losses reported in Perry County through the National Flood Insurance Program (NFIP) since 1978, totaling nearly \$259,000 in claims payments. Currently, this remains the best available data. A summary of these figures for the county is provided in **Table G.8**. It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Perry County were either uninsured, denied claims payment, or not reported.

REPETITIVE LOSS PROPERTIES

No updates to this section can be provided at this time. Information normally used to update this section is not currently accessible. As a result, this information will remain the same for historical purposes.

As of May 2023, there are 11 non-mitigated repetitive loss properties located in Perry County, which accounted for 26 losses and just over \$116,000 in claims payments under the NFIP. The average claim amount for these properties is \$4,462. All 11 of the properties are single family residential. Without mitigation these properties will likely continue to experience flood losses. **Table G.8** presents detailed information on repetitive loss properties and NFIP claims and policies for Perry County. Currently, this remains the best available data.

TABLE G.8: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSSES IN PERRY COUNTY

Location	Flood Losses	Claim Payments	Repetitive Loss Properties	Number of Properties	Number of Losses	Total Payments	Average Payments
<i>Beaumont</i>	16	\$32,703		2	4	\$650	\$2,672
<i>New Augusta</i>	12	\$51,683		3	6	\$33,259	\$5,543
<i>Richton</i>	1	\$42,415		0	0	\$0	\$0
<i>Unincorporated Area</i>	38	\$131,996		6	16	\$72,053	\$4,503
Perry County Total:	67	\$258,797		11	26	\$116,001	\$12,728

*These communities do not participate in the National Flood Insurance Program. Therefore, no values are reported.

Source: FEMA, NFIP

PROBABILITY OF FUTURE OCCURRENCES

Due to the unpredictable nature of this hazard, flood events will remain a threat in Perry County, and the probability of future occurrences will remain likely (between 10 and 100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the county. For example, the northern half of the county has more floodplain and thus a higher risk of flood than the southern half of the county. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and lead to flooding in areas that do not usually flood.

G.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Erosion in Perry County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Perry County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Perry County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Perry County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

If the climate continues to change as scientists predict, the higher intensity and magnitude of storms and the increasing drought and high heat days, can lead to erosion in areas that have not been impacted by erosion in the past.

As the climate continues to change, the chance of heavy rain leading to flash flooding could also increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding cascading effects are possible such as erosion of soil from the ground, under/ around trees, and under roads. This can lead to falling trees, power outages, and road damage.

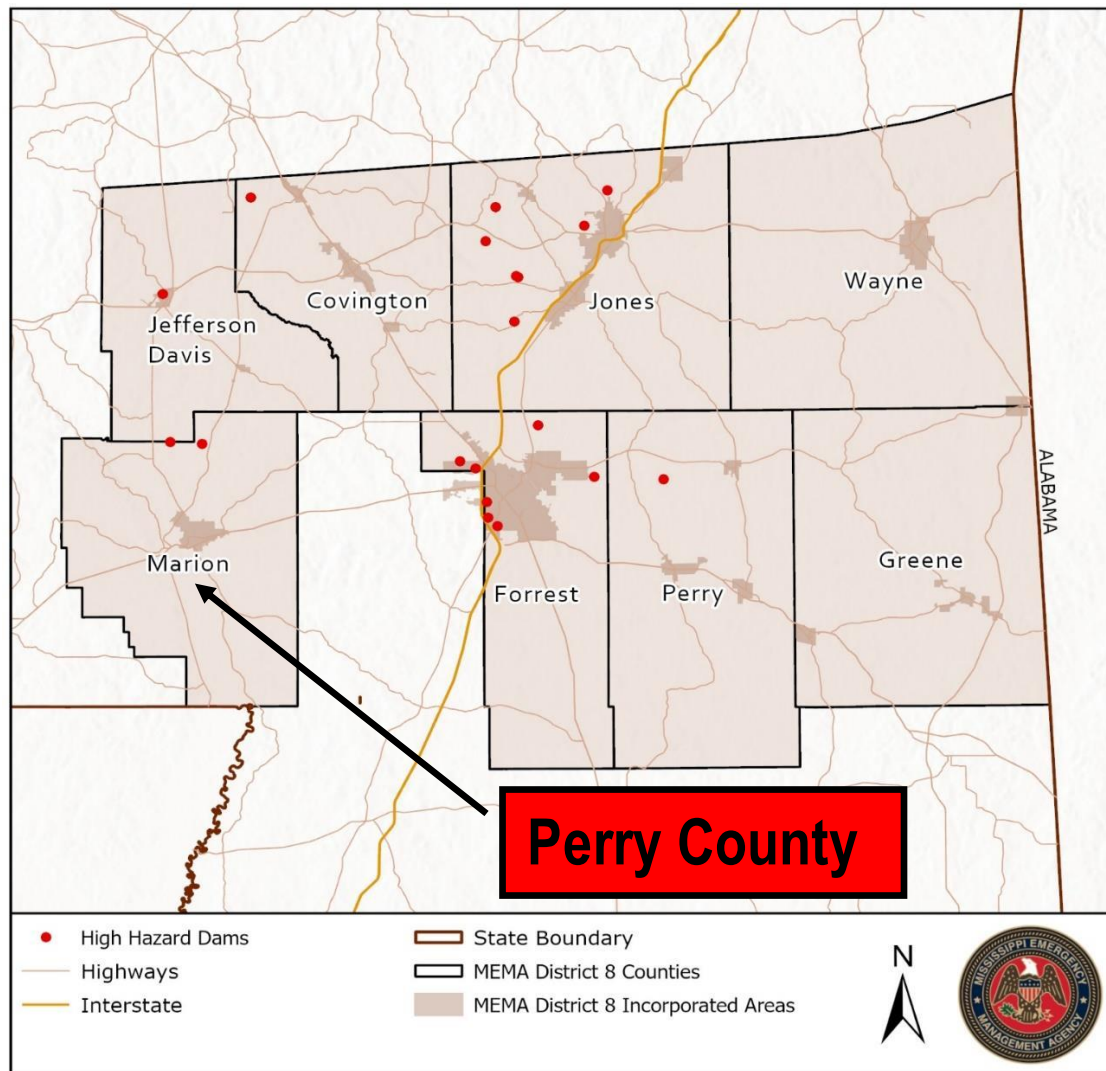
G.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

According to the Mississippi Division of Environmental Quality, one dam's status was elevated to a high hazard dam. The high hazard dam is listed by name in **Table G.9** and **Figure G.3**. According to a consensus of local government officials and the Regional Hazard Mitigation Council, a majority of these dams would not pose a major threat in a breach or failure occurrence .

TABLE G.9: PERRY COUNTY HIGH HAZARD DAMS

Hazard Potential	Dam Name
High	<i>Sportsman Lake Dam</i>

FIGURE G.3: HIGH HAZARD DAM IN PERRY COUNTY

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

G.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local winter weather. Perry County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of seven recorded winter storm events in Perry County since 2000. These events were reported to cause no damages. Detailed information on the recorded winter storm events can be found in **Table G.10**.

TABLE G.10: HISTORICAL SUMMARY OF WINTER STORM EVENTS IN PERRY COUNTY

Date	Type	Injuries/ Deaths	Property Damage
1/27/2000	Sleet	0/0	\$0
1/1/2001	Winter Storm	0/0	\$0
1/1/2002	Winter Storm	0/0	\$0
12/11/2008	Winter Weather	0/0	\$0
2/12/2010	Winter Storm	0/0	\$0
12/8/2017	Heavy Snow	0/0	\$0
1/16/2018	Winter Storm	0/0	\$0
Total:	7	0/0	\$0

Source: NCEI/NOAA

There have been several severe winter weather events in Perry County. The text below describes two of the major events and associated impacts on the county. Similar impacts can be expected with severe winter weather.

January 2002 Winter Storm—A winter storm produced heavy snow across portions of southeast Mississippi. The heaviest snow recorded during the storm was four to four- and one-half inches. Icy bridges made traveling across the region very treacherous. As a result, several accidents occurred with two fatalities in Jones County.

December 2017 Winter Storm—An extremely rare early season snow event occurred across the central Gulf coast late in the day on the 8th into the morning of the 9th. An area of low pressure moved northeast off the Gulf and as the low moved east and pulled a cold air mass into the area, rain changed to a mix and eventually all snow. It was the earliest snow event ever recorded in the area. Storm total snow amounts of 3 to 4 inches in Richton, 2 inches in Beaumont and 2 inches in New Augusta.

Winter storms throughout the county have several negative externalities including hypothermia, cost of snow and debris cleanup, business and government service interruption, traffic accidents, and power outages. Furthermore, citizens may resort to using inappropriate heating devices that could lead to a fire or an accumulation of toxic fumes.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Perry County. According to historical information, the annual probability is possible (between 1 and 10 percent).

G.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Perry County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Perry County had drought levels (including abnormally dry) in all of the last eighteen years (2000-2024). **Table G.11** shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE G.11: HISTORICAL DROUGHT OCCURRENCES IN PERRY COUNTY

Abnormally Dry	Moderate Drought	Severe Drought	Extreme Drought	Exceptional Drought	
Location	Date	Injuries/Deaths	Property Damage	Crop Damage	Event/Severity
Perry County	10/1/2016	0/0	\$0	\$0	D2
Perry County	11/1/1016	0/0	\$0	\$0	D3
Perry County	12/1/1016	0/0	\$0	\$0	D3
Total:	3	0/0	\$0	\$0	

Source: NCED/NOAA

There was at least one reported drought events for Perry County according to the National Centers for Environmental Information. However, the event was not significant enough to cause any crop damages.

October – December 2016—An extensive period of dry weather resulted in worsening drought conditions across southeast Mississippi, with severe drought developing over a portion of inland southeast Mississippi. Severe (D2) drought conditions developed through the month of October in Perry County. For most of inland southeast Mississippi, no measurable rain was recorded for the entire month with the last significant rain occurring in mid to late September.

By the end of November, the entire region was under Extreme (D3) Drought. The entire area saw rain totals less than 50% of normal for the month, with many areas receiving less than 10% of normal. This lack of rain came on the heels of one of the driest Octobers on record.

A prolonged period of dry weather continued through much of December resulting in continued drought conditions across southeast Mississippi. Severe (D2) and Extreme (D3) drought conditions were found across much of the region. A couple of rain events late in the month helped to improve conditions.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

Summer of 2000—Hot temperatures persisted from July to September across the South and Plains. Known as the Summer of 2000 Heat Wave, high temperatures commonly peaked over 100 degrees. As shown in Figure 5.2 below, there were several days over 90 degrees than the typical average. This was the fourth warmest July-August on record. In Beaumont, the temperature was 100 degrees or higher eleven days during the month with the hottest being 105 degrees. In Richton the temperature was 100 degrees or higher three days during the month with the hottest being 102 degrees.

August 2007—A heat wave gripped most of the area with the warmest temperatures since 2000. It lasted from August 5th to the 16th.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Perry County has a probability level of highly likely (100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude.

Heat Wave

Based on historical occurrence information, it is assumed that all of Perry County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could impact the effects on the counties' crops, economy, and population.

G.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2023, Perry County experiences an average of 19 wildfires annually which burn an average of 287 acres per year. The data indicates that most of these fires are small, averaging fifteen acres per fire. **Table G.12** provides a summary of wildfire occurrences in Perry County since the last update, and **Table G.13** lists the number of reported wildfire occurrences in the county between the years 2010 and 2023.

TABLE G.12: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2023) *

Perry County	
Average Number of Fires per year	12.2
Average Number of Acres Burned per year	196
Average Number of Acres Burned per fire	16.1

Source: MS Forestry Commission

TABLE G.13: HISTORICAL WILDFIRE OCCURRENCES IN PERRY COUNTY

Perry County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	39	48	8	22	42	11	26	21	9	8	8	10	15	20
Number of Acres Burned	379	483	13	181	634	47	544	540	215	138	79	217	229	317

Source: US Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Wildfire events will be an ongoing occurrence in Perry County. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to Perry County for future wildfire events is likely (a 10 and 100 percent annual probability).

If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact or wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

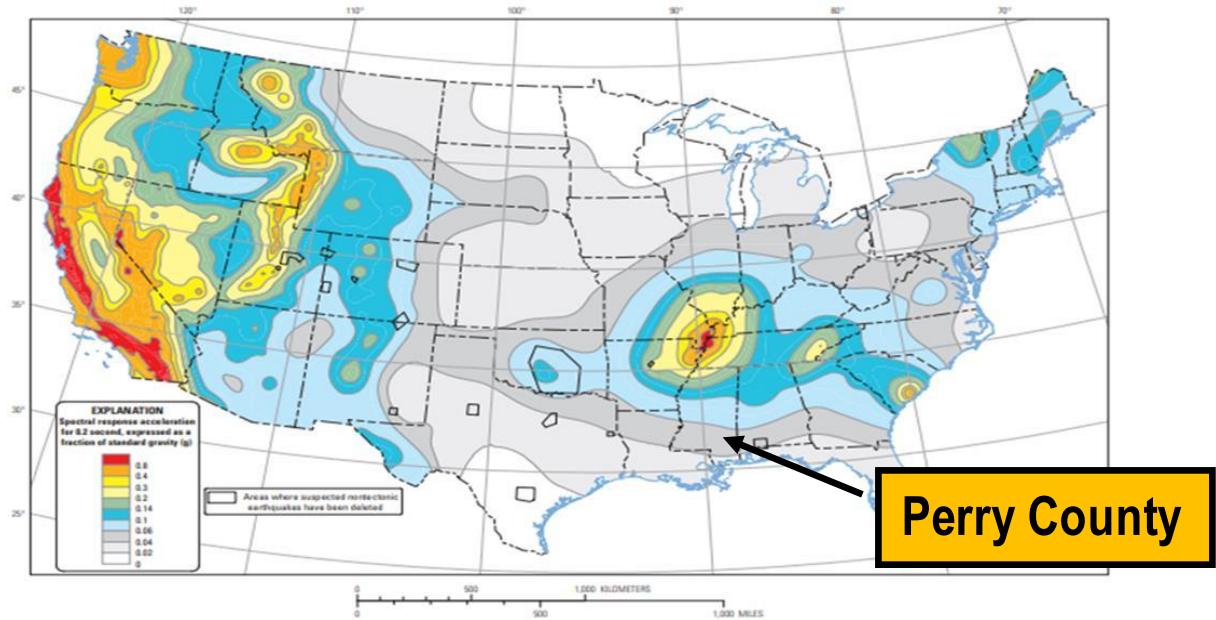
If the predicted increase in heavy rains occur it can also cause flooding and erosion, which can also make the area more susceptible to wildfires.

G.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure G.4 shows the intensity level associated with Perry County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, Perry County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE G.4: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS



Source: USGS

HISTORICAL OCCURRENCES

No earthquakes are known to have affected Jones County since 1638. **Table G.14** provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 and 2024.

TABLE G.14: SUMMARY OF SEISMIC ACTIVITY IN PERRY COUNTY

Location	Date	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
<i>Beaumont</i>	--	0	--	--
<i>New Augusta</i>	--	0	--	--
<i>Richton</i>	--	0	--	--
<i>Unincorporated Area</i>	--	0	--	--
Perry County Total:		0	--	--

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Perry County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

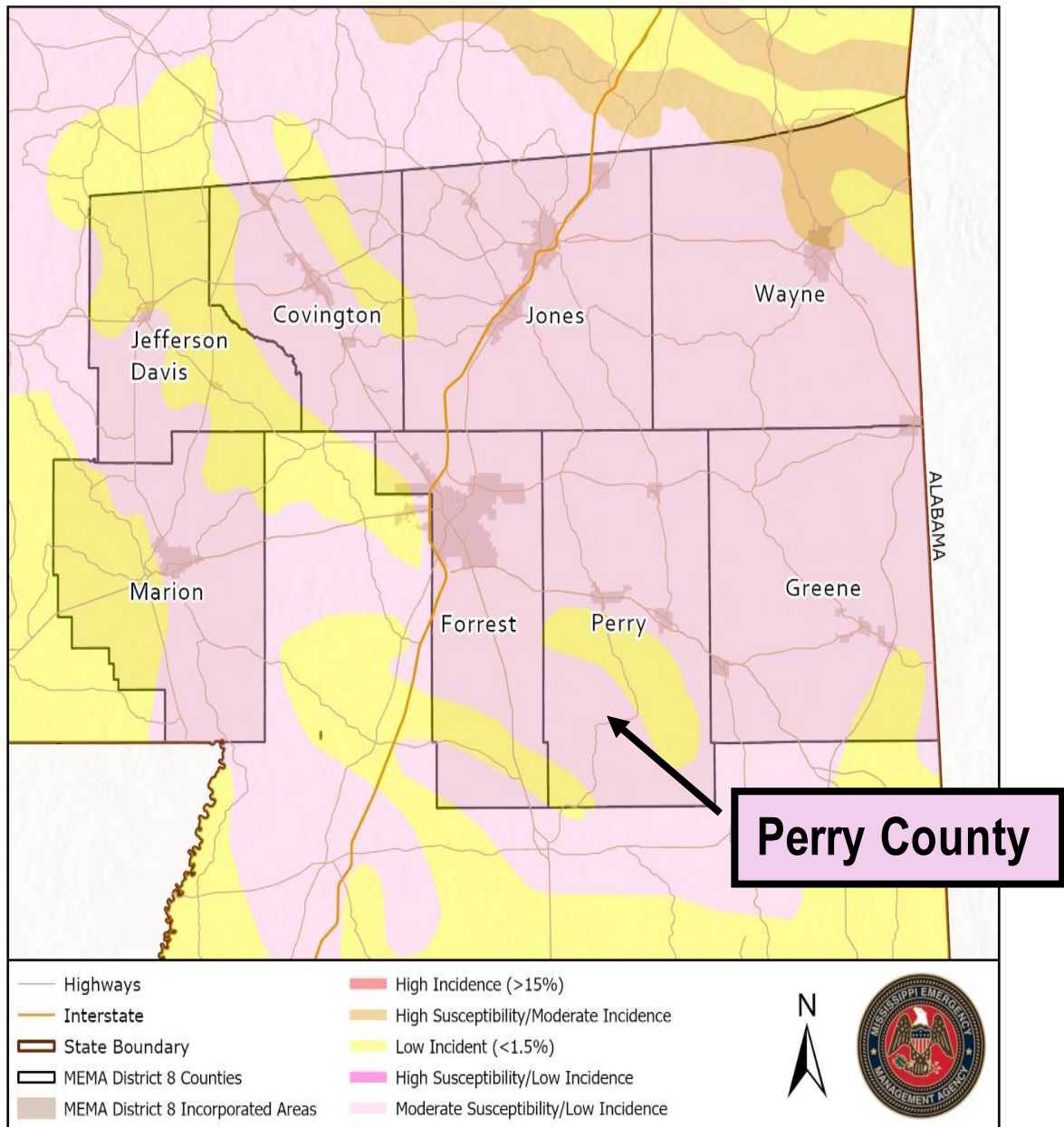
G.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. Landslides are possible throughout Perry County.

According to **Figure G.5** below, the entire county falls under a moderate incidence/low incidence area (light pink) and low Incident (yellow). This indicates that less than 1.5 percent of the area is involved in land sliding. The areas in yellow are defined as low incidence and low susceptibility. The areas in light pink, however, indicate that a moderate susceptibility to land sliding activity is present. There are no changes with susceptibility to the landslide hazard since the last plan update.

FIGURE G.5: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF PERRY COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Perry County. Landslide events typically occur in isolated areas.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information and the USGS susceptibility index, the probability of future landslide events is unlikely (less than 1 percent probability). The USGS data indicates that all areas in Perry County have a low landslide incidence rate. However,

some areas are reported as having moderate susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Perry County have greater risk than others given factors such as steepness on slope and modification of slopes.

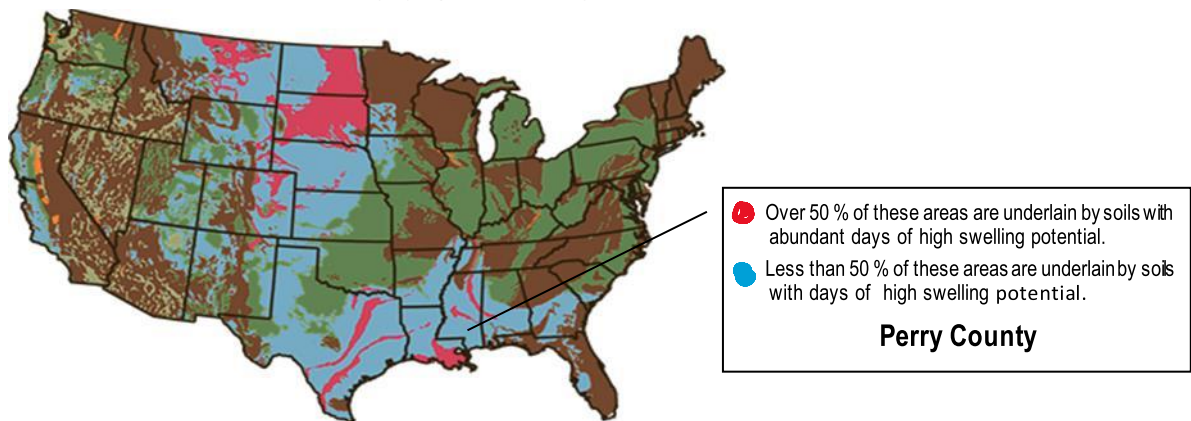
Also, as the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

G.2.9 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Perry County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure G.6**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential.

FIGURE G.6: SWELLING CLAYS IN MISSISSIPPI



Source: USGS

HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Perry County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

G.2.10 Hurricane and Tropical Storm

LOCATION AND SPATIAL EXTENT

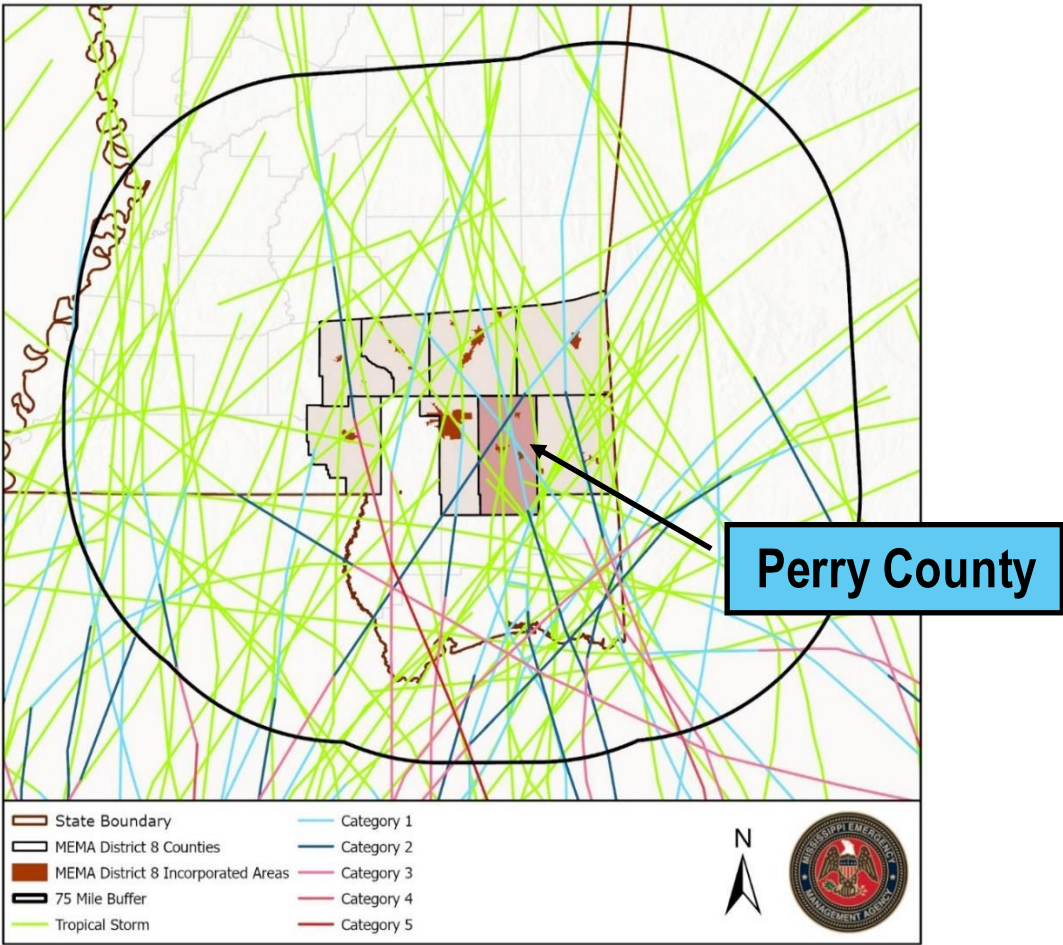
Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Perry County. All areas in Perry County are equally susceptible to hurricane and tropical storms. However, no hurricanes or tropical depressions have impacted the area during this planning period.

HISTORICAL OCCURRENCES

According to the National Hurricane Center’s historical storm track records, a total of 63 hurricanes have passed within 75 miles of the county since 1851. This includes 1 category 5 storm, 2 category 4 storms, 7 category 3 storms, 3 category 2 storms, 15 category 1 storms, and 35 tropical storms as shown in **Figure G.7**.

Of the recorded storm events, a total of thirteen tracks passed directly through the county including Hurricanes Ethel (1960), Unnamed (1855), Unnamed (1906), and Unnamed (1916). These hurricanes were category 1 strength when they traversed the county with two exceptions: Unnamed Storm of 1855, which passed through the county as category 3 hurricane, and Unnamed Storm of 1906, which passed through the county as a category 2 hurricane. **Table G.15** provides the detail for each storm that passed through the county including date of occurrence, name (if applicable), maximum wind speed (as recorded when traversing the county) and category of the storm based on the Saffir-Simpson Scale.

FIGURE G.7: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF PERRY COUNTY



Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1979 (Hurricane Frederic), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Dennis), 2005 (Hurricane Katrina), and 2012 (Hurricane Isaac), 2020 (Hurricane Zeta), and 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial damage in the area due to high winds and flooding.

TABLE G.15: HISTORICAL STORM TRACKS WITHIN 75 MILES OF PERRY COUNTY (1850–2024)

Date of	Storm Name	Maximum Wind Speed (mph)	Storm
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Occurrence			Category
9/16/1855	Unnamed	115	Category 3
9/15/1860	Unnamed	81	Category 1
7/12/1872	Unnamed	46	Tropical Storm
6/15/1886	Unnamed	40	Tropical Storm
9/12/1892	Unnamed	46	Tropical Storm
8/8/1894	Unnamed	40	Tropical Storm
9/27/1906	Unnamed	109	Category 2
7/6/1916	Unnamed	92	Category 1
10/18/1923	Unnamed	57	Tropical Storm
9/1/1932	Unnamed	69	Tropical Storm
10/16/1932	Unnamed	46	Tropical Storm
9/10/1944	Unnamed	40	Tropical Storm
9/16/1960	Hurricane Ethel	52	Tropical Storm
9/4/1969	Hurricane Camille	80	Category 1
9/13/1979	Hurricane Frederic	Unknown	Tropical Storm
8/20/1995	Hurricane Erin	50	Tropical Storm
9/25/1998	Hurricane Georges	Unknown	Tropical Storm
9/16/2004	Hurricane Ivan	50	Tropical Storm
7/10/2005	Hurricane Dennis	55	Tropical Storm
8/29/2005	Hurricane Katrina	75	Category 1
9/1/2008	Hurricane Gustav	35	Depression
8/29/2012	Hurricane Isaac	45	Tropical Storm
10/28/2020	Hurricane Zeta	43	Tropical Storm
8/30/2021	Hurricane Ida	50	Tropical Storm
Total:	22	--	--

Source: NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted the county as found below:

Hurricane Erin – August 20, 1995—Hurricane Erin moved out of Washington County, Alabama into Greene and Wayne Counties in Mississippi. The storm moved generally along Highway 45 passing just south of Waynesboro. Trees and power lines were blown down across Northern Greene, Northern Perry and most of Wayne Counties as Erin moved northwest. Some homes were damaged along Highway 45 and in the cities of Buckatunna and Waynesboro. Most of the damage was from trees falling on homes or shingles being blown from roofs. Wind speeds of 50 to 60 mph were estimated in Waynesboro. Preliminary damage estimates in these three counties was around \$100 thousand.

Hurricane Georges – September 25, 1998—Hurricane Georges, a strong Category 2 hurricane moved slowly northwest across the Gulf of Mexico toward southeast Louisiana and coastal Mississippi on the September 25 and September 26. As the hurricane approached the mouth of the Mississippi River on September 27, it slowly turned toward the north making landfall along the Mississippi Coast just to the east of Biloxi, MS on September 28. Hurricane Georges resulted in damage from heavy rains and persistent winds. Trees and power lines were blown down. Cotton, soybean, and pecan crops were almost totally destroyed.

Hurricane Ivan – September 16, 2004—Thousands of trees were blown down across Eastern Mississippi during the event as well as hundreds of power lines. The strong wind itself did not cause much structural damage, however the fallen trees did. These downed trees accounted for several hundred homes, mobile homes and businesses to be damaged or destroyed. Most locations across Eastern Mississippi reported sustained winds between 30 and 40 mph with Tropical Storm force gusts between 48 and 54 mph. The strongest reported winds occurred in Newton, Lauderdale and Oktibbeha Counties.

Overall, rainfall totals were held in check as Ivan steadily moved north. The heaviest rains were confined to far Eastern Mississippi where 3 to 4 inches fell over a 15-hour period. Due to the duration of the rain no flooding was reported. Across Eastern Mississippi, Hurricane Ivan was responsible for one fatality. This fatality occurred in Brooksville (Noxubee County) when a tree fell on a man. Damage from Ivan was estimated at \$200 million.

Hurricane Katrina – August 25, 2005—Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20.

Devastation from Hurricane Katrina was widespread across the region. Hurricane force winds were common across the area. The region received sustained winds of 60-80 mph with gusts ranging from 80-120 mph. There was widespread damage to trees and power lines. Wind damage to structures was also widespread, with roofs blown off or partially peeled. Hundreds of signs were shredded or blown down. Businesses sustained structural damage. Power outages lasted from a few days to as long as four weeks. Agriculture and timber industries were severely impacted. Row crops, including cotton, rice, corn, and soybeans, took a hard hit. Other impacted industries were the catfish industry, dairy and cattle industry, and nursery businesses.

Hurricane Gustav – September 1, 2008—As hurricane Gustav moved south of the area, tropical depression conditions spread into southeast Mississippi. The winds increased during the early morning of September 1 and ended during the early afternoon as Gustav moved farther away. No damage was reported from the winds. Several mesonet sites had sustained winds of 20-30 mph with higher gusts. Rainfall estimates across the area were 3-5 inches which resulted in some minor street flooding. Parts of southeast Mississippi were put under a tropical storm wind warning in the early morning hours of August 31 and the warning continued in effect until the late evening of September 1.

Gustav brought tropical depression conditions to southeast Mississippi as it moved south of the area.

Hurricane Zeta – October 28, 2020—Perry County MS: The county experienced sustained strong tropical storm force winds with frequent gusts to hurricane force. This resulted in significant tree and power line damage. Numerous to widespread power outages were reported. 36 homes were damaged, experiencing either roof damage or damage due to downed trees.

Hurricane Ida – August 30, 2021—Hurricane Ida brought tropical storm force wind gusts downed numerous trees and power lines across the county.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 per cent). Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientists and meteorologists predict tropical cyclones to increase in frequency, magnitude, and intensity as the climate continues to change. These increases could be catastrophic to MS Coastal areas and the counties near the coast. Scientists also predict that hurricanes could increase in frequency and strength in the near future due the effects of Climate Change. This can be seen in the 2023 season with 23 named storms, 11 hurricanes, and 5 major hurricanes. This prediction makes the season the third most active season on record, behind the 2005 season with 28, and the 2020 season with a total of 30. It is expected that an above-average season next season with up to 25 named storms and 4-7 major hurricanes.

G.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Perry County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Perry County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Perry County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Perry County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in four disaster declarations in Perry County in 1971, 1983, 1990, and 2001. According to NCEI, there have been 64 reported thunderstorm and high wind events since 2000 in Perry County. These events caused almost \$700 thousand in damages. **Table G.16** summarizes this information. **Table G.17** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE G.16: SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN PERRY COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
<i>Beaumont</i>	8	0	0	\$43,000	\$0
<i>New Augusta</i>	16	0	0	\$142,000	\$0
<i>Richton</i>	18	0	0	\$338,500	\$0
<i>Unincorporated Area</i>	22	0	0	\$172,000	\$0
Perry County Total:	64	0	0	\$695,500	\$0

Source: NCED/NOAA

TABLE G.17: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN PERRY COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage	Crop Damage
The Town of Beaumont							
<i>Beaumont</i>	1/19/2001	TSTM Wind	55 kts.	0	0	\$2,000	\$0
<i>Beaumont</i>	7/21/2002	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Beaumont</i>	10/27/2006	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Beaumont</i>	6/19/2007	TSTM Wind	50 kts.	0	0	\$12,000	\$0
<i>Beaumont</i>	9/4/2012	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Beaumont</i>	6/29/2013	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>Beaumont</i>	6/30/2018	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>Beaumont</i>	4/24/2021	TSTM Wind	61 kts.	0	0	\$0	\$0

The Town of New Augusta

<i>New Augusta</i>	7/22/2000	TSTM Wind	70 kts.	0	0	\$25,000	\$0
<i>New Augusta</i>	10/13/2001	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>New Augusta</i>	4/8/2002	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>New Augusta</i>	7/30/2005	TSTM Wind	50 kts.	0	0	\$12,000	\$0
<i>New Augusta</i>	6/19/2007	TSTM Wind	50 kts.	0	0	\$25,000	\$0
<i>New Augusta</i>	1/31/2008	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>New Augusta</i>	2/12/2008	TSTM Wind	50 kts.	0	0	\$12,000	\$0
<i>New Augusta</i>	5/3/3008	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>New Augusta</i>	5/15/2008	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>New Augusta</i>	4/3/2012	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>New Augusta</i>	12/20/2012	TSTM Wind	52 kts.	0	0	\$3,000	\$0
<i>New Augusta</i>	6/29/2013	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>New Augusta</i>	3/31/2016	TSTM Wind	61 kts.	0	0	\$5,000	\$0
<i>New Augusta</i>	6/7/2019	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>New Augusta</i>	4/19/2020	TSTM Wind	61 kts.	0	0	\$0	\$0
<i>New Augusta</i>	4/10/2021	TSTM Wind	52 kts.	0	0	\$0	\$0

The Town of Richton

<i>Richton</i>	4/3/2000	TSTM Wind	60 kts.	0	0	\$5,000	\$0
<i>Richton</i>	3/2/2001	TSTM Wind	65 kts.	0	0	\$10,000	\$0
<i>Richton</i>	3/12/2001	TSTM Wind	70 kts.	0	0	\$50,000	\$0
<i>Richton</i>	12/13/2001	TSTM Wind	55 kts.	0	0	\$10,000	\$0
<i>Richton</i>	7/6/2004	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Richton</i>	4/14/2007	TSTM Wind	55 kts.	0	0	\$200,000	\$0
<i>Richton</i>	8/7/2008	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Richton</i>	3/9/2011	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>Richton</i>	4/4/2011	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Richton</i>	6/7/2011	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>Richton</i>	6/5/2012	TSTM Wind	52 kts.	0	0	\$1,500	\$0
<i>Richton</i>	2/15/2016	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Richton</i>	5/20/2018	TSTM Wind	52 kts.	0	0	\$20,000	\$0
<i>Richton</i>	7/31/2018	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Richton</i>	4/18/2019	TSTM Wind	61 kts.	0	0	\$10,000	\$0
<i>Richton</i>	2/3/2022	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Richton</i>	6/12/2023	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Richton</i>	6/14/2023	TSTM Wind	52 kts.	0	0	\$0	\$0

Unincorporated Area in Perry County

<i>Belleville</i>	7/19/2002	TSTM Wind	50 kts.	0	0	\$10,000	\$0
<i>Janice</i>	6/27/2004	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Runnelstown</i>	8/15/2006	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Kittrell</i>	2/13/2007	TSTM Wind	50 kts.	0	0	\$30,000	\$0
<i>Runnelstown</i>	1/10/2008	TSTM Wind	50 kts.	0	0	\$8,000	\$0
<i>Runnelstown</i>	1/31/2008	TSTM Wind	50 kts.	0	0	\$20,000	\$0
<i>Belleville</i>	12/24/2009	TSTM Wind	50 kts.	0	0	\$0	\$0
<i>Mahned</i>	4/4/2011	TSTM Wind	50 kts.	0	0	\$0	\$0

<i>Janice</i>	3/22/2012	TSTM Wind	52 kts.	0	0	\$4,000	\$0
<i>Runnelstown</i>	4/11/2013	TSTM Wind	61 kts.	0	0	\$10,000	\$0
<i>County</i>	12/21/2013	Strong Wind	39 kts.	0	0	\$5,000	\$0
<i>Belleville</i>	1/2/2017	TSTM Wind	52 kts.	0	0	\$5,000	\$0
<i>Janice</i>	4/3/2017	TSTM Wind	61 kts.	0	0	\$8,000	\$0
<i>Kittrell</i>	6/30/2018	TSTM Wind	52 kts.	0	0	\$2,000	\$0
<i>County</i>	7/31/2018	TSTM Wind	50 kts.	0	0	\$15,000	\$0
<i>County</i>	11/1/2018	TSTM Wind	52 kts.	0	0	\$12,000	\$0
<i>Mahned</i>	11/23/2018	TSTM Wind	50 kts.	0	0	\$5,000	\$0
<i>Runnelstown</i>	4/18/2019	TSTM Wind	61 kts.	0	0	\$25,000	\$0
<i>Runnelstown</i>	4/12/2020	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Janice</i>	4/24/2021	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Runnelstown</i>	6/10/2022	TSTM Wind	52 kts.	0	0	\$0	\$0
<i>Runnelstown</i>	6/10/2023	TSTM Wind	52 kts.	0	0	\$0	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 30 recorded hailstorm events have affected Perry County since 2000. **Table G.18** is a summary of the hail events in Perry County. **Table G.19** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$7,000 in property damages. Hail ranged in diameter from 0.75 inches to 2.5 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value.

Lightning

According to the National Centers for Environmental Information, there has been one recorded lightning events in Perry County since 2000, as listed in summary **Table G.19**. This event caused \$60,000 in damages. However, it is likely that lightning events have in fact impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported.

TABLE G.18: SUMMARY OF HAIL AND LIGHTNING OCCURRENCES IN PERRY COUNTY

Location	Number of Occurrences	Deaths/Injuries	Property Damage
<i>Beaumont</i>	7	0/0	\$3,000
<i>New Augusta</i>	3	0/0	\$0
<i>Richton</i>	14	0/0	\$64,000
<i>Unincorporated Area</i>	7	0/0	\$0
Perry County Total:	31	0/0	\$67,000

Source: NCED/NOAA

TABLE G.19: HISTORICAL HAIL AND LIGHTNING OCCURRENCES IN PERRY COUNTY

Location	Date	Type	Magnitude	Deaths/Injuries	Property Damage
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The Town of Beaumont					
<i>Beaumont</i>	3/9/2003	Hail	0.75 in.	0/0	\$0
<i>Beaumont</i>	4/25/2003	Hail	0.75 in.	0/0	\$0
<i>Beaumont</i>	5/18/2003	Hail	0.75 in.	0/0	\$0
<i>Beaumont</i>	3/30/2005	Hail	1.75 in.	0/0	\$3,000
<i>Beaumont</i>	3/9/2011	Hail	1 in.	0/0	\$0
<i>Beaumont</i>	1/21/2017	Hail	1 in.	0/0	\$0
<i>Beaumont</i>	5/27/2020	Hail	1 in.	0/0	\$0
The Town of New Augusta					
<i>New Augusta</i>	7/17/2006	Hail	0.88 in.	0/0	\$0
<i>New Augusta</i>	3/8/2011	Hail	1 in.	0/0	\$0
<i>New Augusta</i>	2/24/2012	Hail	1.75 in.	0/0	\$0
The Town of Richton					
<i>Richton</i>	3/12/2002	Hail	0.75 in.	0/0	\$0
<i>Richton</i>	3/13/2003	Hail	0.75 in.	0/0	\$0
<i>Richton</i>	4/25/2003	Hail	0.75 in.	0/0	\$0
<i>Richton</i>	5/3/2003	Hail	0.88 in.	0/0	\$0
<i>Richton</i>	2/23/2004	Hail	1 in.	0/0	\$0
<i>Richton</i>	3/22/2005	Hail	0.75 in.	0/0	\$0
<i>Richton</i>	4/11/2000	Hail	0.75 in.	0/0	\$0
<i>Richton</i>	4/22/2005	Hail	1.75 in.	0/0	\$4,000
<i>Richton</i>	4/4/2008	Hail	1 in.	0/0	\$0
<i>Richton</i>	6/27/2015	Lightning	--	0/0	\$60,000
<i>Richton</i>	4/15/2021	Hail	1 in.	0/0	\$0
<i>Richton</i>	4/17/2022	Hail	1 in.	0/0	\$0
<i>Richton</i>	6/16/2023	Hail	2.50 in.	0/0	\$0
Unincorporated Area in Perry County					
<i>Mahned & Ferguson</i>	4/25/2003	Hail	0.75 in.	0/0	\$0
<i>Runnelstown</i>	4/11/2005	Hail	0.75 in.	0/0	\$0
<i>Janice</i>	6/23/2006	Hail	0.75 in.	0/0	\$0
<i>Mahned</i>	4/24/2010	Hail	1.75 in.	0/0	\$0
<i>Hintonville</i>	6/8/2013	Hail	1 in.	0/0	\$0
<i>Ferguson</i>	1/21/2017	Hail	1.75 in.	0/0	\$0
<i>Hintonville</i>	6/16/2023	Hail	2.50 in.	0/0	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Perry County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there were no historical lightning events reported in Perry County via NCEI data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), Perry County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year.

Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county in crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

G.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Perry County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that Perry County is uniformly exposed to this hazard.

HISTORICAL OCCURRENCES

Tornadoes resulted in four disaster declarations in Perry County in 1971, 1983, 1990, and 2001. According to the National Centers for Environmental Information, there have been a total of 12 recorded tornado events in Perry County since 2000 (**Table G.19**), resulting in over \$218 thousand in property damages. In addition, 0 fatalities and 1 injury was reported. The magnitude of these tornadoes ranges from F0 to EF2 in intensity, although an F5 event is possible. Detailed information on historic tornado events can be found in **Table G.20**.

TABLE G.19: SUMMARY OF TORNADO OCCURRENCES IN PERRY COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage
<i>Beaumont</i>	3	0	0	\$8,000
<i>New Augusta</i>	0	0	0	\$0
<i>Richton</i>	1	0	0	\$0
<i>Unincorporated Area</i>	9	0	1	\$210,000
Perry County Total:	12	0	1	\$218,000

Source: NCED/NOAA

TABLE G.20: HISTORICAL TORNADO IMPACTS IN PERRY COUNTY

Location	Date	Magnitude	Deaths	Injuries	Property Damage
Town of Beaumont					
<i>Beaumont</i>	12/23/2002	F0	0	0	\$8,000
<i>Beaumont</i>	3/30/2022	EF2	0	0	\$0
<i>Beaumont</i>	4/17/2022	EF2	0	0	\$0
Town of New Augusta					
<i>None</i>	--	--	--	--	--
Town of Richton					
<i>Richton</i>	4/17/2022	EF1	0	0	\$0
Unincorporated Area in Perry County					
<i>Hintonville</i>	12/13/2001	F0	0	0	\$10,000
<i>Janice</i>	4/24/2003	F0	0	0	\$10,000
<i>Janice</i>	11/24/2004	F0	0	0	\$5,000
<i>Janice</i>	12/25/2012	EF2	0	0	\$0
<i>Tallahala</i>	2/10/2013	EF1	0	0	\$25,000
<i>Tallahala</i>	1/21/2017	EF2	0	1	\$160,000
<i>Bellville</i>	4/19/2020	EF1	0	0	\$0
<i>Janice</i>	3/30/2022	EF0	0	0	\$0

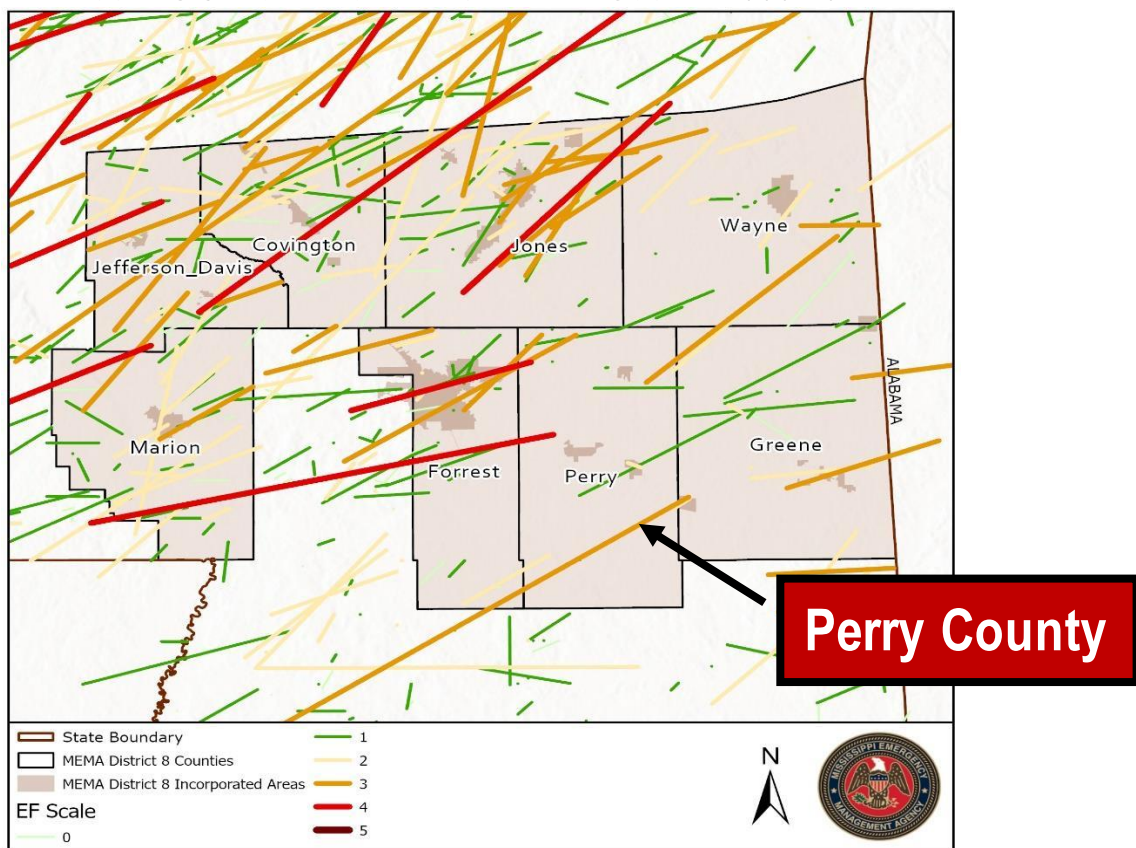
Source: NCED/NOAA

Anecdotes are available from NCEI for the tornadoes that have impacted that area as found below:

February 10, 2013—Thunderstorms developed ahead of an approaching cold front. Some of the thunderstorms became severe with damaging winds and tornadoes. The storms also produced very heavy rain which caused flash flooding.
Event Narrative This was a continuation of the EF-4 Hattiesburg tornado as it was weakening and crossing into Perry County Mississippi. The tornado was at EF-1 strength at 100 yards wide as it crossed the county line then weakened quickly to less than 80 yards wide at EF-0 strength as it crossed Corinth Church Road just south of Highway 42. The tornado dissipated just east of Corinth Church Road in a wooded area.

January 21, 2017—This tornado entered extreme NW Perry County, MS from NE Forrest County 2 miles WNW of Runnelstown, MS and continued to move NE at 45 to 50 MPH before lifting 5.5 miles NE of Runnelstown. Two main areas along the path had significant damage, with EF-2 category winds between 111 to 125 mph. One was located on Pumping Station Road 1.3 miles NW of Runnelstown, and the other 2.7 miles NE of Runnelstown along Cole Drive. Significant tree damage and sporadic power lines were downed along the track of the tornado. Damage estimates from property were around \$105,000 with tree damage estimated at \$55,000.

FIGURE G.8: TORNADOE PATHS IN PERRY COUNTY 2000-2024



PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Perry County. The probability of future tornado occurrences affecting Perry County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

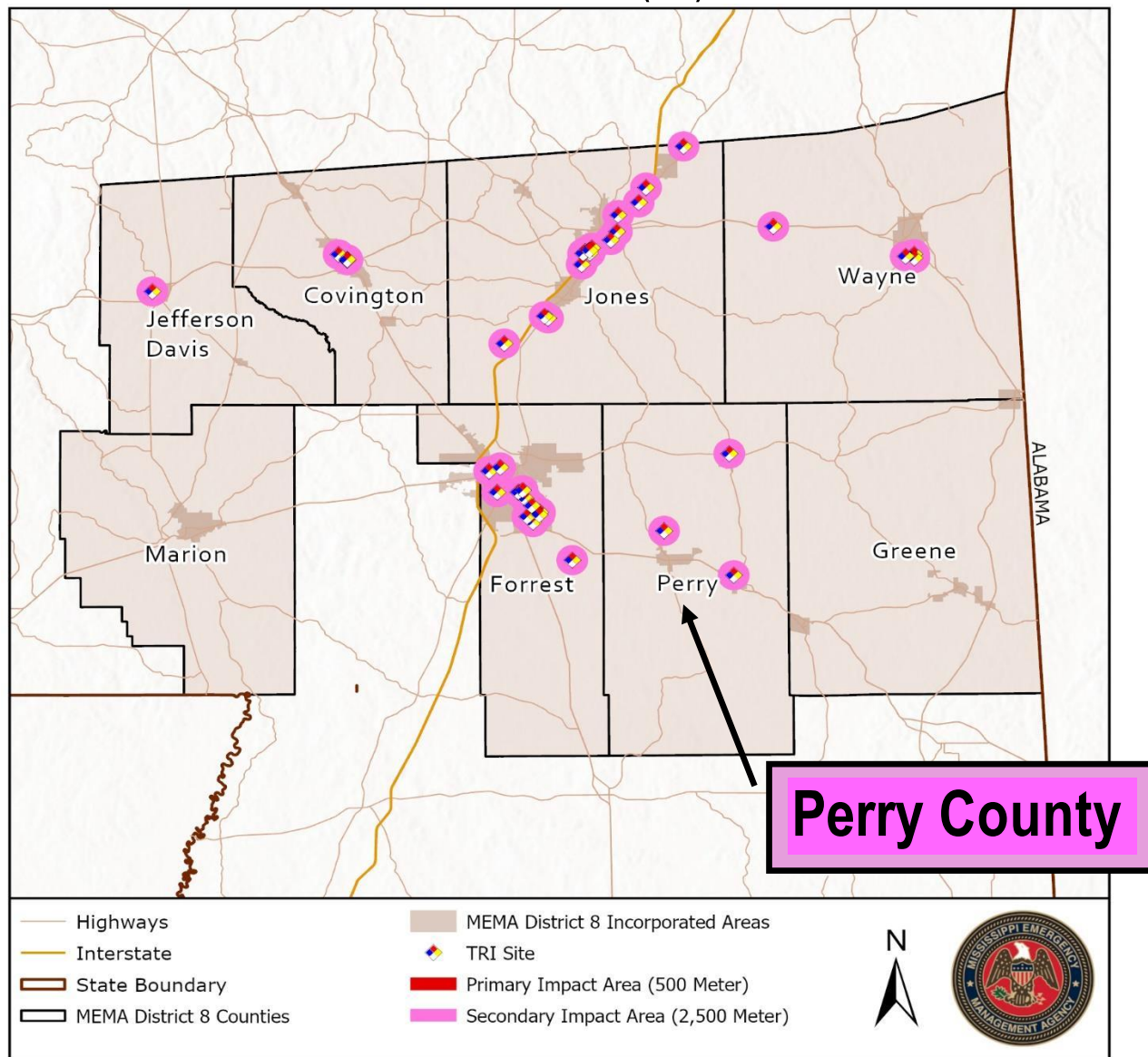
G.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Perry County has three TRI sites. These sites are shown in **Figure G.8**

FIGURE G.8: TOXIC RELEASE INVENTORY (TRI) SITES IN PERRY COUNTY

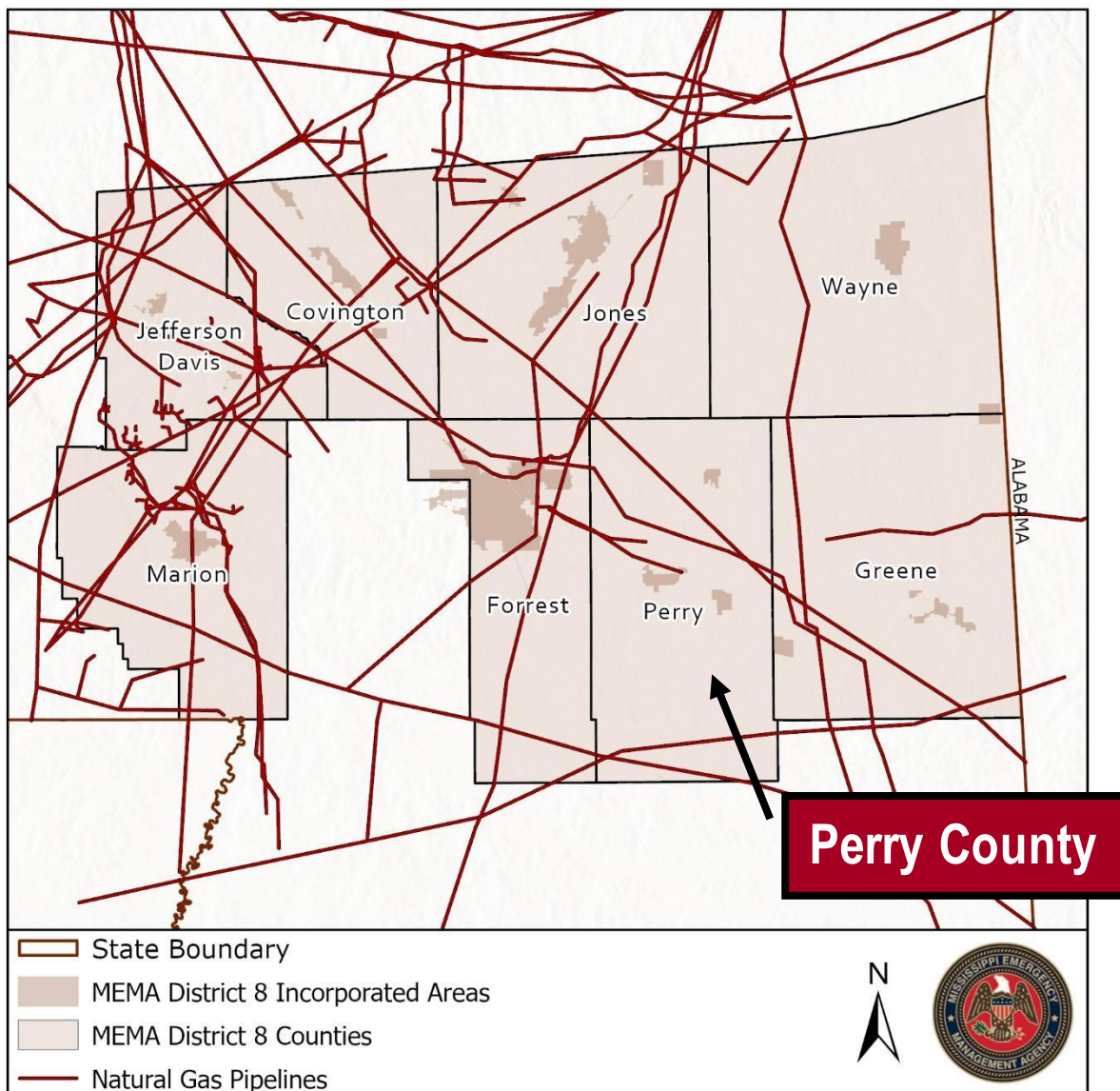


In addition to “fixed” hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

There are two distinct types of pipelines that are used in the transport of potentially hazardous materials, gas lines and hazardous liquid lines. **Figure G.9** shows the trunk lines for each of these material types but does not show the gathering or distribution pipelines. Gas lines and liquid lines are in red/maroon. This data has not changed since the last plan update.

FIGURE G.9: PIPELINES IN PERRY COUNTY



Meth Labs

One of the greatest concerns about meth labs is that they are clandestine in nature. Additionally, once a meth lab has been identified, police authorities generally attempt to eliminate the site as quickly as possible. Therefore, it is nearly impossible to identify specific locations for meth labs and instead, the entire planning area is considered to be at risk to this hazard.

HISTORICAL OCCURRENCES

Hazardous Materials

There has been a total of seven recorded HAZMAT incidents in Perry County since 1973. **Table G.21** presents detailed information on historic HAZMAT incidents in Perry County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

TABLE G.21: HAZMAT INCIDENTS IN PERRY COUNTY

Location	Date	Report Number	Mode	Serious Incident	Deaths/Injuries	Damages	Quantity Released
The Town of Beaumont							
<i>None Reported</i>	--	--	--	--	--	--	--
The Town of New Augusta							
<i>New Augusta</i>	4/3/1973	I-1973040166	Highway	No	0/0	\$0	0
<i>New Augusta</i>	3/6/1979	I-1979031112	Highway	Yes	0/0	\$0	4,000 LGA
<i>New Augusta</i>	11/12/1984	I-1984120013	Highway	No	0/0	\$0	25 LGA
<i>New Augusta</i>	1/18/1987	I-1987010388	Highway	No	0/0	\$0	629 LGA
<i>New Augusta</i>	1/18/2012	I-2012020040	Highway	No	0/0	\$0	3.5 LGA
The Town of Richton							
<i>Richton</i>	7/9/1976	I-1976070629	Highway	No	0/0	\$0	5 LGA
<i>Richton</i>	2/13/1992	I-1992030246	Highway	No	0/0	\$0	10 LGA
Unincorporated Area in Perry County							
<i>None Reported</i>	--	--	--	--	--	--	--

Source: USDOT PHMSA

Pipelines

Between 2000 and 2024, there have been no pipeline incidents in Perry County.

Meth Labs

Meth lab incidents have occurred at various times throughout Perry County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

Given the location of three toxic release inventory sites in Perry County and several roadway and rail incidents, it is possible that a hazardous material incident may occur in the county (between one percent and ten percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Although there are just three TRI sites and a limited record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and narrow roadways.

Pipelines

Although there have been no major pipeline incidents, there are 242 miles of gas and hazardous liquid lines in the region. Therefore, it is anticipated that there will be future pipeline incidents in Perry County. These are considered possible.

Meth Labs

Meth lab incidents will likely continue to occur throughout Perry County. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

G.2.14 Cyber Attack

A cyber-attack is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. A cyberterrorism event can impact one or more of Perry County's and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The cyberterrorism hazard is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. Targets of cyberterrorism can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in in Perry County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact for Perry County. As such, the county will continue to be compelled to respond to cyberterrorisms in the future. The nature of these attacks is projected to evolve in sophistication over time. Perry County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations.

The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

G.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. Perry County chose to analyze this hazard given due to the devastating effects of the COVID-19 Virus. The virus affected the health, welfare, and economy of the people of Perry County. The Covid-19 Virus also had a Disaster Declaration issued for the entire country. This was the first Declaration of this kind.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be shutdown, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates back to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused from a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Similar to other pandemics, this pandemic has two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and those with chronic respiratory, cardiac, neurological, or immunity conditions.

Worldwide, it is estimated that 43 million to 89 million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019, and changed the way people view Pandemics. Perry County had 3,807 cases of COVID and 66 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have underlying health conditions.

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Webster County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154.pdf/SNSPlan.pdf>

G.2.16 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its “How-to” guidance document titled Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data, stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table G.22 describes the extent of each natural hazard identified for Perry County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE G.22: EXTENT OF PERRY COUNTY HAZARDS

HAZARD	DESCRIPTION
--------	-------------

Tectonic Hazards

Earthquake

Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Perry County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, USGS data shows Perry County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

Mass-Movements

Landslide

As noted above in the landslide profile, there is no extensive history of landslides in Perry County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout the county. There is also susceptibility throughout the county.

Expansive Soils

As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Perry County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Perry County.

Hydraulic Hazards

Drought

Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Perry County has received this ranking several times over the reporting period.

Floods

Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 17.8 percent of the total land area in Perry County.

Flood depth and velocity are recorded via United States Geological Survey stream gages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at the Leaf River at Beaumont in 1900. Water reached a discharge of 150,000 cubic feet per second and the stream gage height was recorded at 34.00 feet.

Dam Failure

Dam Failure extent is defined using the Mississippi Division of Environmental Quality criteria. One dam is classified as high hazard in the county.

Meteorological Hazards

Hurricane and Tropical Storms

Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Perry County was a Category 3 storm (an unnamed storm in 1855) which carried tropical force winds of 115 miles per hour upon arrival in the county.

Thunderstorms/ Hail/ Lightning/ Wind

Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Perry County was last reported on July 22, 2000 & March 12, 2001, at 70 knots (approximately 80 mph). It should be noted that future events may exceed these historical occurrences.

Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Perry County was 2.5 inches (last reported on July 16, 2023). It should be noted that future events may exceed this.

According to the Vaisala's flash density map, Perry County is located in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.

Winter Storms

The extent of winter storms can be measured by the amount of snowfall received (in inches). Official long-term snow records are not kept for any areas in the MEMA District 8 Region. However, the greatest snowfall reported in Jackson (north of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.

Temperature Extremes/ Heat Wave

A four day stretch of extreme temperatures occurred across the region to start off the month of August. High pressure was firmly entrenched across the southeast and allowed temperatures to soar into the triple digits across much of the region. Across the NWS Jackson, MS forecast area, 19 record highs were set between August 1st and 4th. On August 2nd, the 2nd warmest average temperature was recorded. The low was 78 and the high 105, this resulted in an average temperature of 91.5 degrees. Additionally, relatively high humidity levels made conditions even more oppressive, with heat index readings surpassing 110 degrees in many areas.

Tornado

Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Perry County was an EF2 (reported on January 21, 2017).

Biological Hazards

Pandemic

The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life.

Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019, and changed the way people view Pandemics. Perry County had 3,807 cases of COVID and 66 deaths.

Other Natural Hazards

Wildfire

Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by county from 2010-2023. The greatest number of fires to occur in Perry County in any year was 48 in 2011. The greatest number of acres to burn in the

	county in a single year occurred in 2014 when 634 acres were burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.
Erosion	The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Perry County.
Climate Change	The extent Climate Change will impact Perry County is hard to estimate. It could cause more intense, frequent, and/or magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase so will property damage and possible loss of life.
Other Hazards	
Cyber Attack	The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damages depends on the demands of the cyberterrorist.
Hazard Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the county is 4,000 LGA released on the highway in New Augusta. It should be noted that larger events are possible. A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled. Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

In order to draw some meaningful planning conclusions on hazard risk for Perry County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a *"Priority Risk Index" (PRI)*. More information on the PRI and how it was calculated can be found in *Section 5.16.2*.

Table G.23 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating PRI values and making final determinations for the risk assessment.

TABLE G.23: SUMMARY OF PRI RESULTS FOR PERRY COUNTY

	Category/Degree of Risk
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HAZARD	Probability	Impact	Spatial Extent	Warning Time	Duration	PRI Score
Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/ Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/ High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Possible	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 24 hours	2.2

G.2.17 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Perry County, including the *PRI results* and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table G.24). For purposes of these classifications, risk is expressed in relative terms according to the estimated impact that a hazard will have on human life and property throughout all of Perry County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in Section 6: *Vulnerability Assessment* and below in Section G.3. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE G.24: CONCLUSIONS ON HAZARD RISK FOR PERRY COUNTY

High Risk	<i>Drought/Heat Wave Hurricane and Tropical Storm Thunderstorm/ High Wind Tornado Flood Lightning Pandemic</i>
Moderate Risk	<i>Climate Change Hail Pipeline Incident Hazardous Materials Incident Wildfire Dam Failure Winter Storm and Freeze</i>
Low Risk	<i>Expansive Soil Landslide Meth Lab Incident Pandemic Erosion Cyber Attack</i>

G.3 PERRY COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Perry County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact and expected amounts of damages caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in *Section 6: Vulnerability Assessment*.

G.3.1 Asset Inventory

Table G.25 lists the number of parcels and the total assessed value of improvements for Perry County and its participating jurisdictions (study area of vulnerability assessment).

TABLE G.25: IMPROVED PROPERTY IN PERRY COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Perry County	5,608	\$874,179,000

Table G.26 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Perry County. HAZUS-MH 6.1 was used to obtain the critical facilities for the county and this data was updated to reflect recent changes. In addition, **Figure G.11** shows the locations of essential facilities in Perry County. **Table G.27** shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

TABLE G.26: CRITICAL FACILITY INVENTORY IN PERRY COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools
<i>Beaumont</i>	1	1	0	-	1
<i>New Augusta</i>	1	0	0	-	1
<i>Richton</i>	0	1	1	-	2
<i>Unincorporated Area</i>	0	1	0	-	3
Perry County Total:	2	3	1	0	7

FIGURE G.11: CRITICAL FACILITY LOCATIONS IN PERRY COUNTY

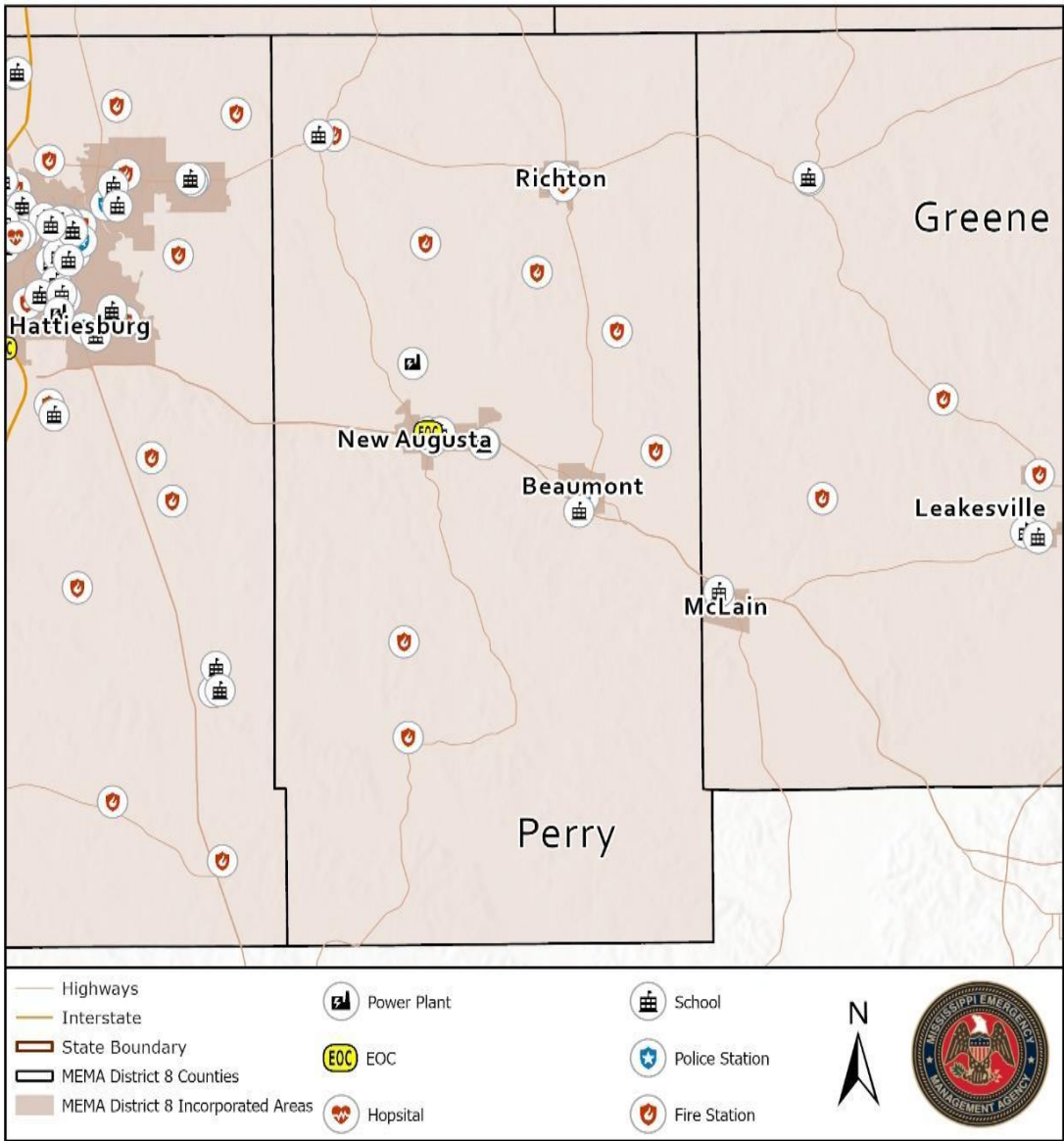


Table G.28 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an “X”).

TABLE G.28: CRITICAL FACILITES VULNERABLE TO ADDITIONAL HAZARDS

	Other	Atmospheric	Geologic	Hydrologic
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Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100- Year Flood	500- Year Flood
Perry County Critical Facilities														
Beaumont Elem. School	School	HIGH	X	X	X	X	X	X	X	X				
Beaumont Police Dept	Police Station	LOW	X	X	X	X	X	X	X	X				
Beaumont VFD	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				
Perry CO Alt. School	School	HIGH	X	X	X	X	X		X	X				
New Augusta Elem. School	School	LOW		X	X	X	X		X	X				X
Perry Central High School	School	HIGH		X	X	X	X		X	X				
Perry CO VOC Complex	School	HIGH		X	X	X	X		X	X				
Perry County Sheriff's Dept	Police Station	Non-burnable		X	X	X	X		X	X				X
Town of New Augusta VFD	Fire Station	HIGH		X	X	X	X		X	X				
Perry CO General Hospital	Care Facility	Non-burnable	X		X	X	X		X	X				
Richton Elem. School	School	Non-burnable	X		X	X	X		X	X				
Richton High School	School	Non-burnable	X		X	X	X		X	X				
Richton Police Dept	Police Station	Non-burnable	X		X	X	X	X	X	X				

G.3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Perry County that are potentially at risk to these hazards.

Table G.29 lists the population by jurisdiction according to U.S. Census 2020 population estimates. Population counts are presented at the county and municipal level. The total population in Perry County according to Census data is 11,511 persons. If the decline in population continues, it could lead to a decline in the population vulnerability. Additional population estimates are presented above in *Section G.1*.

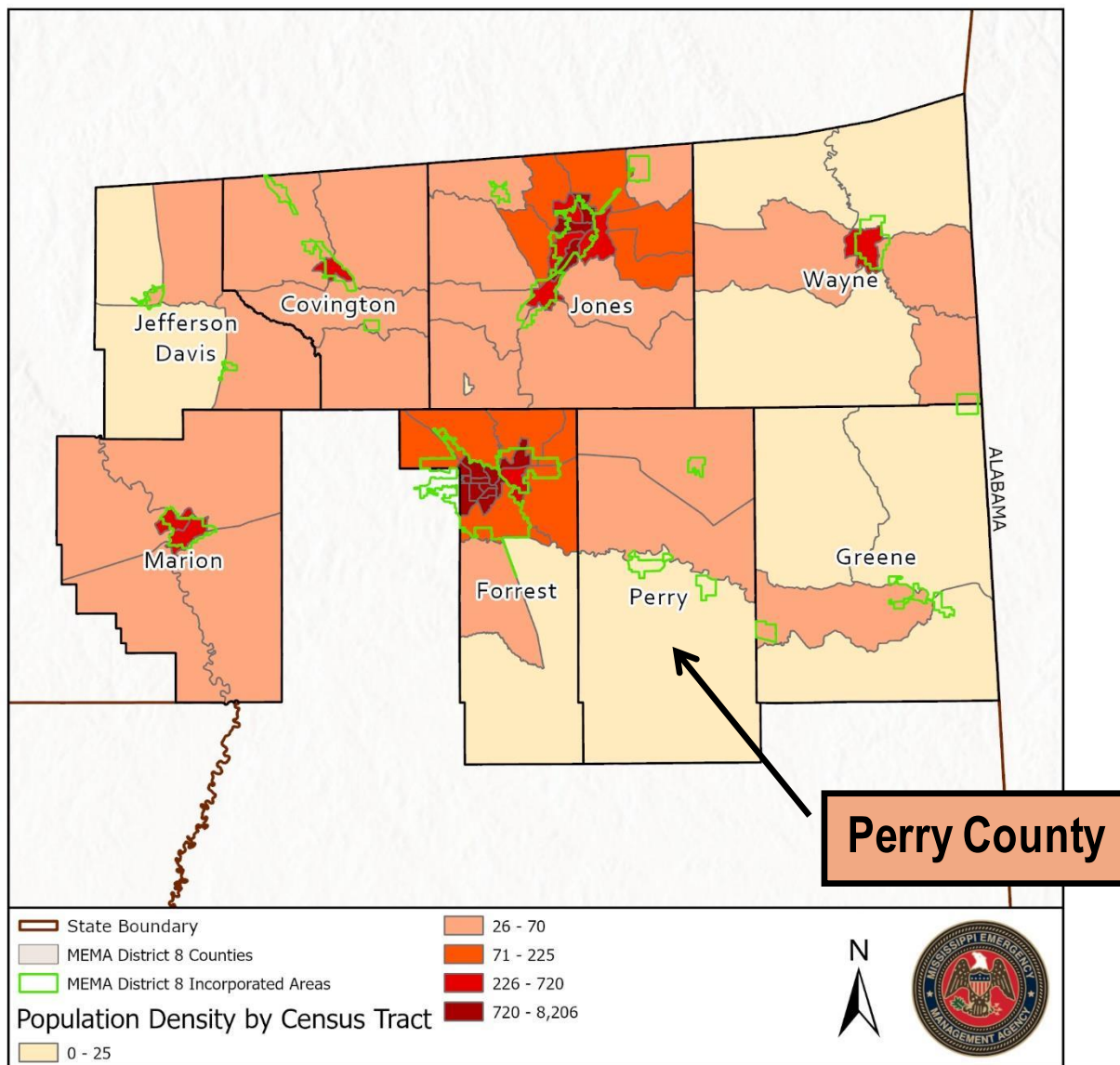
TABLE G.29: TOTAL POPULATION IN PERRY COUNTY

Jurisdiction	2010 Census	2020 Census
Perry County Total:	12,250	11,511
<i>Beaumont</i>	951	669
<i>New Augusta</i>	644	554
<i>Richton</i>	1068	920
<i>Unincorporated Area</i>	9,587	9,368

Source: US Census Bureau

In addition, **Figure G.12** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020. This information has not changed since the last plan update.

FIGURE G.12: POPULATION DENSITY IN PERRY COUNTY



G.3.3 Vulnerability Assessment Results

As noted in *Section 6: Vulnerability Assessment*, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Perry County, are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table G.24**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

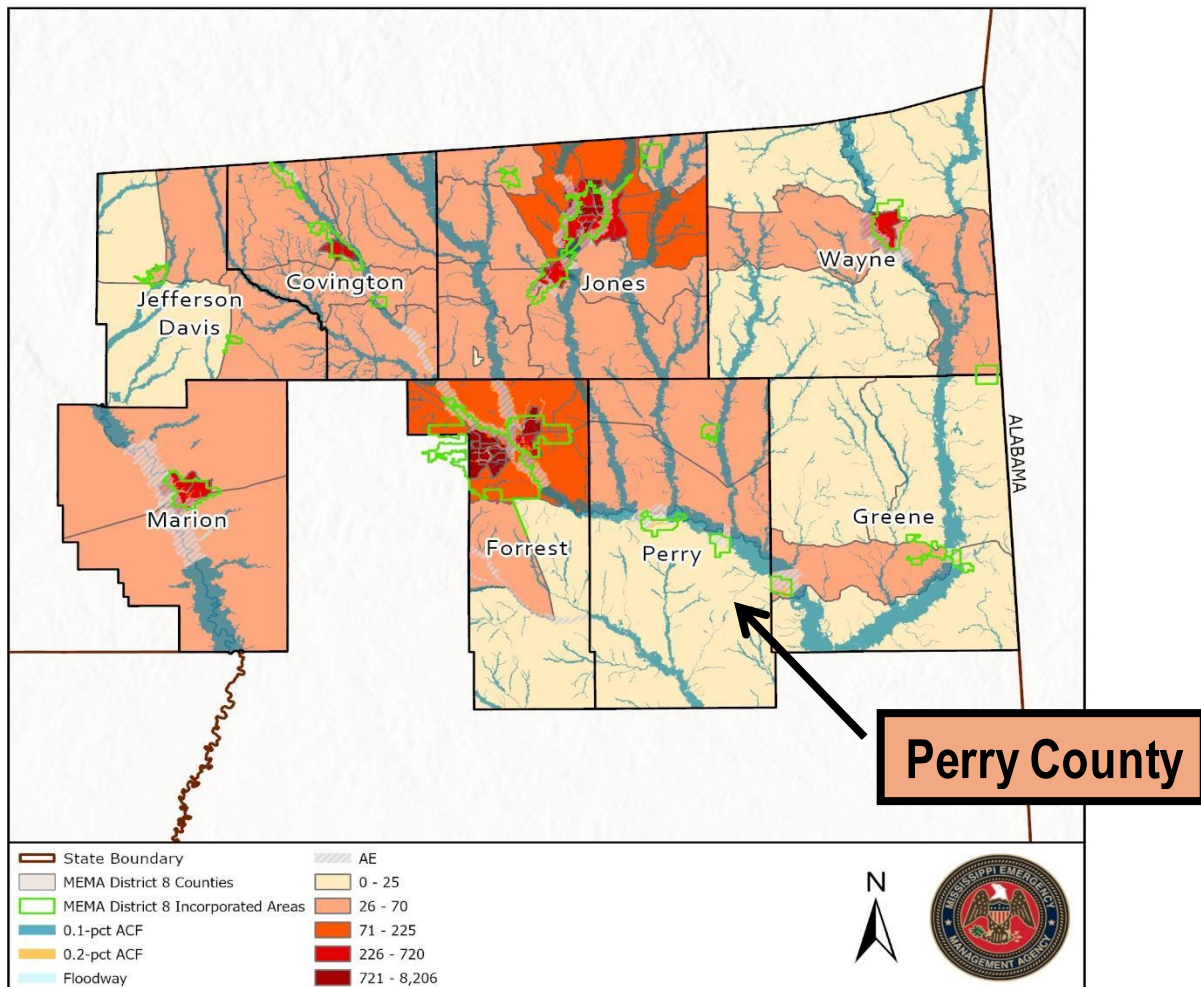
FLOOD

Historical evidence indicates that Perry County is susceptible to flood events. A total of 27 flood events have been reported by the National Centers for Environmental Information resulting in over \$1.9 M in damages.

Social Vulnerability

Since 2020 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data. **Figure G.13** is presented to gain a better understanding of at-risk population.

FIGURE G.13: POPULATION DENSITY NEAR FLOODPLAINS



Critical Facilities

The critical facility analysis revealed that there are no critical facilities located in the Perry County 1.0-percent annual chance floodplain and two critical facilities located in the 0.2-percent annual chance floodplain based on FEMA DFIRM boundaries and GIS analysis. These two critical facilities are valued at over \$3.9M. A list of specific critical facilities and their associated risk can be found in **Table G.28**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Perry County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

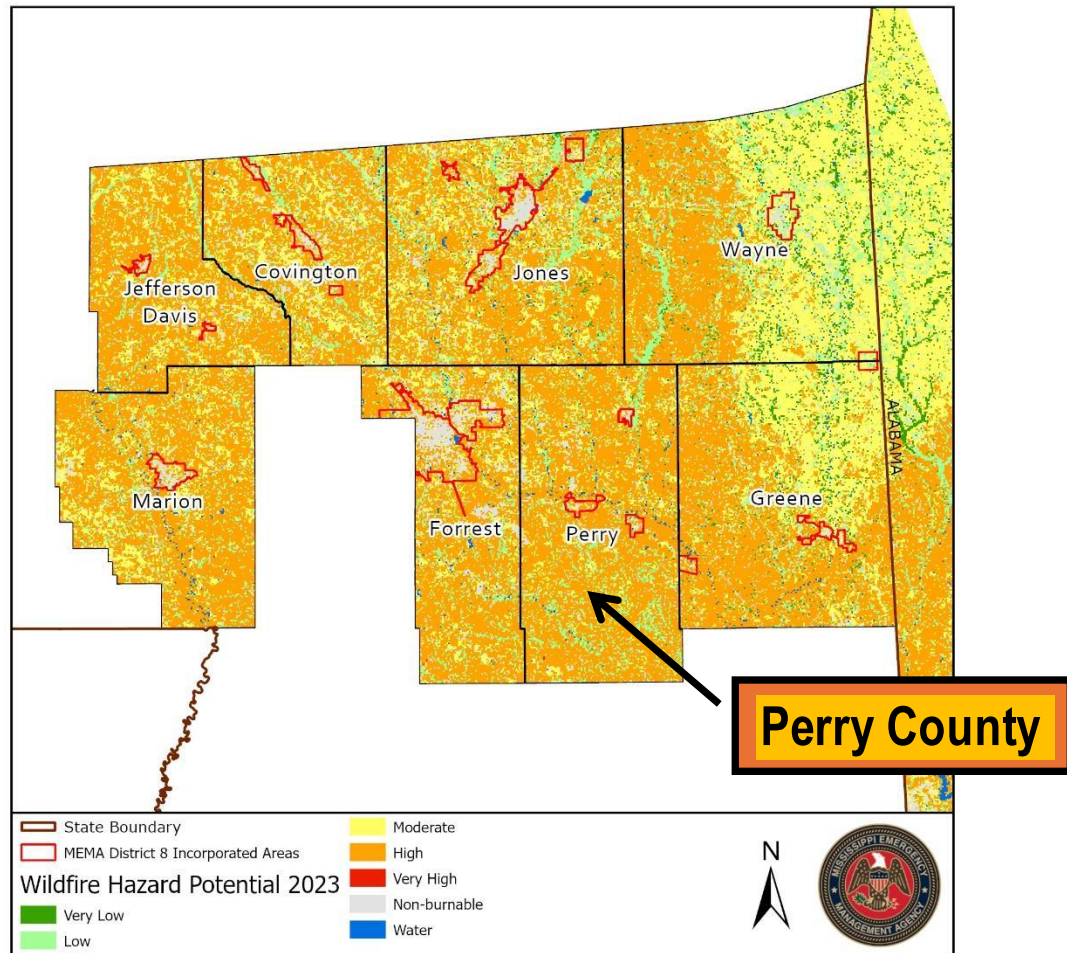
WILDFIRE

Although historical evidence indicates that Perry County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential (WHP) data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure G.14 shows the wildfire hazard potential for Perry County. Most of the planning areas falls within the low to high category.

FIGURE G.14: WILDFIRE RISK AREAS IN PERRY COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there are two critical facilities located in an area considered low risk valued at nearly \$4M. There are five critical facilities located in an area considered high risk valued at \$17.3M. It should be noted, however, that several factors could impact the spread of a wildfire putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table G.28**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Perry County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS

estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 13 critical facilities identified for Covington County, valued at \$49,825,789. All are vulnerable to the earthquake hazard.

In conclusion, an earthquake has the potential to impact all existing and future buildings, facilities, and populations in Perry County. While Perry County may not experience a large earthquake (there are none on record), localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table G.28**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Perry County has an elevated risk to the hurricane and tropical storm hazard. Several tracks have come near or traversed through the county, as shown and discussed in **Section G.2.10**.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There is an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amounts of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of 2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Perry County, all critical facilities are considered to be at risk. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. There are 13 critical facilities identified for Perry County, valued at \$49,825,789. Some buildings may perform better than others in the face of such an event

due to construction and age, among other factors. Determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation action for especially vulnerable and/or critical facilities to mitigation against the effects of the hurricane hazard. A list of specific critical facilities can be found in **Table G.28**.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in Perry County. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

HAZARDOUS MATERIALS INCIDENT

Although historical evidence and existing Toxic Release Inventory sites indicate that Perry County is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS analysis was used for fixed and mobile areas. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Perry County, along with buffers, were used for analysis as shown in **Figure G.15**. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis. **Figure G.16** shows the areas used for mobile toxic release buffer analysis. The mobile toxic release buffer data did not change since the last plan update.

FIGURE G.15: TRI SITES WITH BUFFERS IN PERRY COUNTY

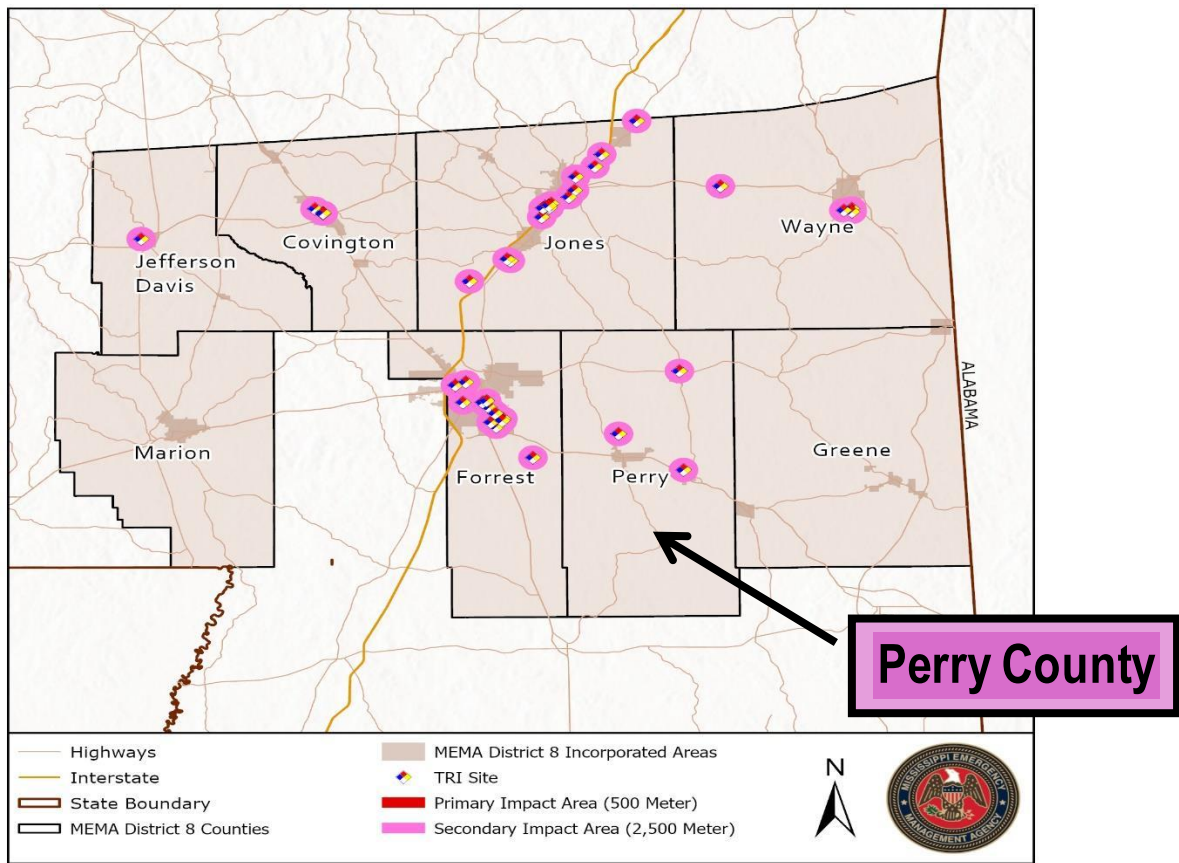
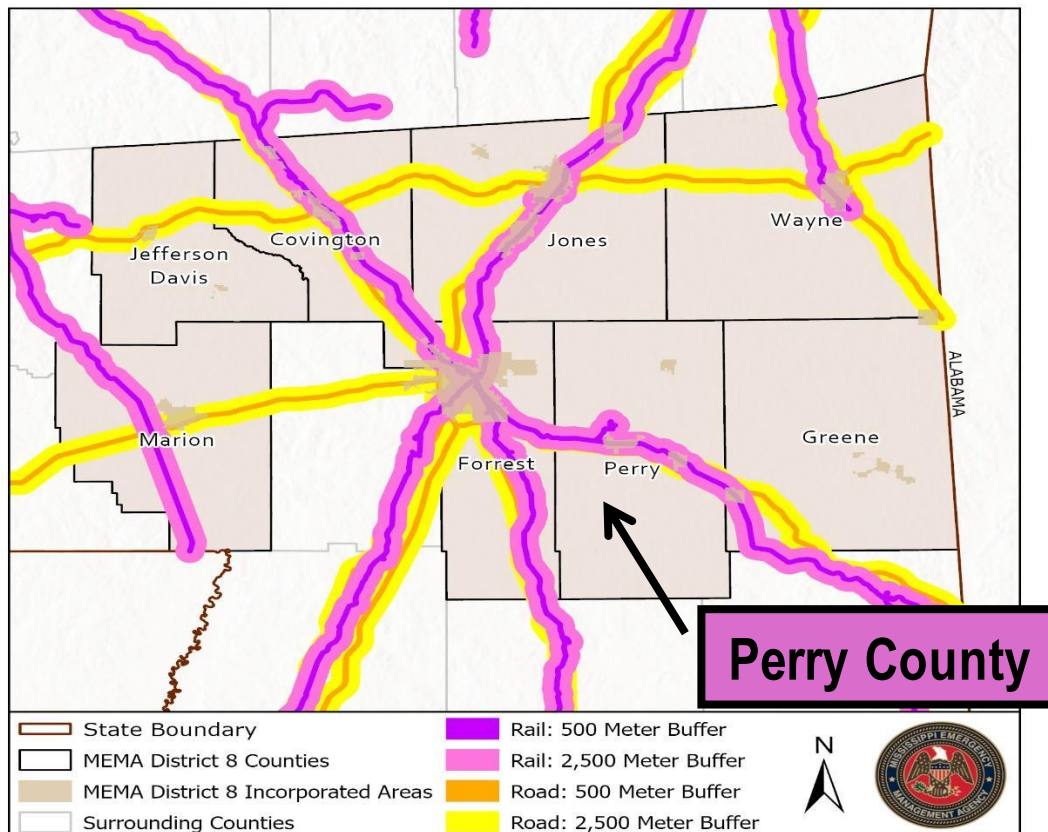


FIGURE G.14: MOBILE HAZMAT BUFFERS IN PERRY COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden to evacuate population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are no critical facilities that would be impacted by only the 500M HAZMAT risk zone. There are 8 critical facilities that would be impacted by the 2500M HAZMAT risk zone, valued at nearly \$36M. A list of specific critical facilities and their associated risk can be found in **Table G.28** at the end of this section.

Mobile Analysis:

The critical facility analysis for transportation corridors in Perry County revealed that there are 18 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at over \$18.7M, and there are 7 critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$18.7M. Expanding to a 2500M HAZMAT risk zone reveals there are nine critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable, valued at approximately \$22.5M. There are 9 critical facilities located in the railway mobile HAZMAT buffer area that are vulnerable, also valued at \$22.5M. A list of specific critical facilities and their associated risk can be found in **Table G.28**.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Perry County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

G.4 PERRY COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Perry County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in *Section 7: Capability Assessment*.

G.4.1 Planning and Regulatory Capability

Table G.30 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Perry County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE G.30: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Perry County	Beaumont	New Augusta	Richton
Hazard Mitigation Plan	✓	✓	✓	✓
Comprehensive Land Use Plan			✓	✓
Floodplain Management Plan				
Open Space Management Plan	✓	✓	✓	✓
Stormwater Management Plan/Ordinance				
National Resource Protection Plan				
Flood Response Plan				
Emergency Operations Plan	✓	✓	✓	✓
Continuity of Operations Plan	✓			
Evacuation Plan				
Disaster Recovery Plan				
Capital Improvements Plan				
Economic Development Plan	✓	✓	✓	✓
Historic Preservation Plan				
Flood Damage Prevention Ordinance	✓	✓	✓	✓
Zoning Ordinance			✓	✓
Subdivision Ordinance			✓	✓
Unified Development Ordinance				
Post-Disaster Redevelopment Ordinance				
Building Codes	✓	✓	✓	✓
Fire Codes				
National Flood Insurance Program (NFIP)	✓	✓	✓	✓
National Community Rating System				

A more detailed discussion on the county's planning and regulatory capabilities follows.

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Perry County has previously adopted a hazard mitigation plan. The Town of Beaumont, the Town of New Augusta, and the Town of Richton were also included in this plan.

Emergency Operations Plan

Perry County maintains an emergency operations plan through its Emergency Management Agency. The Town of Beaumont, the Town of New Augusta, and the Town of Richton are each covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Perry County has not adopted a county comprehensive land use plan. However, the Town of New Augusta adopted a community development plan in 1976, and the Town of Richton adopted a city comprehensive plan in 1974.

Zoning Ordinance

Perry County does not have a zoning ordinance in place. However, the Town of New Augusta and the Town of Richton have zoning ordinances that were adopted in 1976 and 1974, respectively.

Subdivision Ordinance

Perry County does not have a subdivision ordinance in place. However, the Town of New Augusta and Town of Richton adopted subdivision regulations in 1976 and 1974, respectively.

Building Codes, Permitting, and Inspections

Perry County, the Town of Beaumont, the Town of New Augusta, and the Town of Richton have each adopted building codes.

FLOODPLAIN MANAGEMENT

Table G.31 provides NFIP policy and claim information for each participating jurisdiction in Perry County.

TABLE G.31: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
<i>Perry County†</i>	9/1/1987	11/19/2021	86	\$10,072,300	38	\$131,996
<i>Beaumont</i>	8/16/1988	12/16/2011	11	\$3,209,400	16	\$32,703
<i>New Augusta</i>	4/2/1986	11/19/2024	10	\$804,800	12	\$51,683
<i>Richton</i>	11/17/1978	11/19/2024	4	\$553,000	1	\$42,415

†Includes unincorporated areas of county only
(M) – No Elevation Determined, All Zone A, C and X

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Perry County, the Town of Beaumont, the Town of New Augusta, and the Town of Richton all participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Perry County, the Town of Beaumont, the Town of New Augusta, and the Town of Richton are all included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

G.4.2 Administrative and Technical Capability

Table G.32 provides a summary of the capability assessment results for Perry County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE G.32: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Perry County	Beaumont	New Augusta	Richton
Planners with knowledge of land development/ land management practices	✓			
Engineers of professionals trained in construction practices related to buildings and/or infrastructure	✓	✓	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards.	✓	✓		
Emergency Manager	✓	✓	✓	✓
Floodplain Manager	✓	✓	✓	✓
Land Surveyors	✓			
Scientists familiar with the hazards of the community.	✓	✓	✓	✓
Staff with education or expertise to assess the community's vulnerability to hazards.	✓	✓	✓	✓
Personnel skilled in GIS and/or HAZ-US	✓	✓	✓	✓
Resource development staff or grant writers	✓			

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

G.4.3 Fiscal Capability

Table G.33 provides a summary of the results for Perry County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE G.33: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Perry County	Beaumont	New Augusta	Richton
Capital Improvement Programing	✓	✓	✓	✓
Community Development Block Grants (CDBG)	✓	✓	✓	✓
Special Purchase Taxes (or taxing districts)				
Gas/ Electric Utility Fees				
Water/ Sewer Fees				
Stormwater Utility Fees				
Development Impact Fees				
General Obligation, Revenue, and/or Special Tax Bonds				
Partnering Arrangements or Intergovernmental Agreements	✓	✓	✓	✓

G.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Perry County is more likely to shift in support of hazard mitigation efforts.

G.5 PERRY COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Perry County to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability assessment and risk assessment. Additional Information can be found in *Section 8: Mitigation Strategy* and *Section 9: Mitigation Action Plan*.

G.5.1 Mitigation Goals

Perry County developed five mitigation goals in coordination with the other participating *MEMA District 8 Region* jurisdictions. The regional mitigation goals are presented in **Table G.34**.

TABLE G.34: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

Goal	
Goal #1	Develop a sustainable, comprehensive mitigation program to ensure safer communities.
Goal #2	Reduce or avoid loss of life, injury, and damage to property, the economy, and the environment.
Goal #3	Enhance preparedness and effective response to hazards.
Goal #4	Strengthen and improve local mitigation capabilities.
Goal #5	Increase public awareness of hazard mitigation, hazard risk, and protective measures that can be taken to minimize potential loss and damage.

G.5.2 Mitigation Action Plan

The mitigation actions proposed by Perry County, the Town of Beaumont, the Town of New Augusta, and the Town of Richton are listed in the following individual Mitigation Action Plans

Perry County Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Deferred
P-4	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Annual County Budget	County BOS & Road Crews	Annual Review	Implemented & Ongoing
P-5	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred based on funding availability.
P-6	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	This action has been deferred due to lack of funding.
P-7	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	TBD	County	Ongoing	Deferred based on funding availability.
P-8	Develop a comprehensive development plan.	All	High	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
P-9	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	Grants, BRIC HMGP	TBD	County	Ongoing	Deferred due to funds
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	TBD	County	Annual Review	Implemented & Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding (no action taken)
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster	All	Medium	Self-funded and MEMA	Low to no cost	County EMA	Annual Review	Implemented & Ongoing

	preparedness, civil defense, or other hazard mitigation activities.							
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA, County BOS	Ongoing	Completed and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HGMP, CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA	Ongoing	Implemented & Ongoing
ES-4	Improve disaster communication systems within the County.	All	High	Unknown	Unknown	County EMA	Contingent on funding	Ongoing
ES-5	Install warning sirens in the County.	TO, HU	Medium	Grants, BRIC HMGP	Unknown	County EMA	Contingent on funding	
ES-6	Enhance Central Dispatch and other communications equipment	All	Medium	Grants, BRIC HMGP	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-7	Explore Upgrade/enhancement of 911 in Perry County.	All	Low to Medium	Grants, BRIC HMGP, Self-funded	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-8	Explore potential to install Reverse 911 system.	All	Low to Medium	Grants, BRIC HMGP	Unknown	County EMA, County	Contingent on funding	Completed & Ongoing
ES-9	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Annual Review	Implemented & Ongoing
ES-10	Enhance identification of evacuation routes through the distribution of MDOT maps.	F, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented & Ongoing
ES-11	Ensure continuity of utility services for public buildings and other critical facilities. This includes purchasing backup generators and/or transfer switches to existing and future critical assets.	All	High	Grants, BRIC, HMGP	Unknown	County	Ongoing	Implemented & Ongoing
ES-12	Develop a government services continuity plan.	All	Medium	USDA Rural Dev CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-13	Host a meeting to review Perry County Comprehensive Emergency Management Plan.	All	Medium	Self-funded	No additional cost	County	Annual Meeting	Implemented & Ongoing
ES-14	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Implemented & Ongoing
ES-15	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-Funded, MEMA	Low Cost	County	Ongoing	Implemented & Ongoing
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing Contingent on funding	Deferred due to funds
SP-2	Acquisitions of RL/SRL Properties	FL	High	Grants, BRIC HMGP, EMI	No Cost	County	Ongoing	Implemented & Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Grants, BRIC HMGP, EMI	Low to No Cost	County	Ongoing	Implemented & Ongoing

PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented & Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented & Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented & Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Completed & Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA, Others	Unknown	County	Ongoing	Deferred, no action taken

FL = Flood

HU = Hurricane

TS = Tropical Storm

TO = Tornado

TH = Thunderstorm

BH = Biological Hazards

HW = High Winds

TT = Transportation and Technological Hazards

RH = Roadway Hazards

CH = Civil Hazards

P = Pandemic

County EMA = Perry County Emergency Management AgencyCounty BOS = Perry County Board of Supervisors

The Town of Beaumont Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Deferred
P-4	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Annual County Budget	County BOS & Road Crews	Annual Review	Implemented & Ongoing
P-5	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred based on funding availability.
P-6	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	This action has been deferred due to lack of funding.
P-7	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	TBD	County	Ongoing	Deferred based on funding availability.
P-8	Develop a comprehensive development plan.	All	High	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
P-9	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	Grants, BRIC HMGP	TBD	County	Ongoing	Deferred due to funds
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	TBD	County	Annual Review	Implemented & Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding (no action taken)
Emergency Services								
	Encourage participation by staff and elected officials in voluntary or							

ES-1	extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	County EMA	Annual Review	Implemented & Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA, County BOS	Ongoing	Completed and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HGMP, CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA	Ongoing	Implemented & Ongoing
ES-4	Improve disaster communication systems within the County.	All	High	Grants, BRIC HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-5	Install warning sirens in the County.	TO, HU	Medium	Grants, BRIC HMGP	Unknown	County EMA	Contingent on funding	
ES-6	Enhance Central Dispatch and other communications equipment	All	Medium	Grants, BRIC HMGP	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-7	Explore Upgrade/enhancement of 911 in Perry County.	All	Low to Medium	HMGP, Self-funded	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-8	Explore potential to install Reverse 911 system.	All	Low to Medium	Grants, BRIC HMGP	Unknown	County EMA, County	Contingent on funding	Completed & Ongoing
ES-9	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Annual Review	Implemented & Ongoing
ES-10	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented & Ongoing
ES-11	Ensure continuity of utility services for public buildings and other critical facilities. This includes purchasing backup generators and/or transfer switches to existing and future critical assets.	All	High	Grants, BRIC HMGP	Unknown	County	Ongoing	Implemented & Ongoing
ES-12	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-13	Host a meeting to review Perry County Comprehensive Emergency Management Plan.	All	Medium	Self-funded	No additional cost	County	Annual Meeting	Implemented & Ongoing
ES-14	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Implemented & Ongoing
ES-15	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-Funded, MEMA	Low Cost	County	Ongoing	Implemented & Ongoing

Structural Projects

SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing Contingent on funding	Deferred due to funds
SP-2	Acquisitions of RL/SRL Properties	FL	High	Grants, BRIC HMGP, EMI	No Cost	County	Ongoing	Implemented & Ongoing

Public Education and Awareness

PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Grants, BRIC, HMGP, EMI	Low to No Cost	County	Ongoing	Implemented & Ongoing
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ANNEX G: PERRY COUNTY

PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented & Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented & Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented & Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Completed & Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA, Others	Unknown	County	Ongoing	Deferred, no action taken

FL = Flood

HU = Hurricane

TS = Tropical Storm

TO = Tornado

TH = Thunderstorm

BH = Biological Hazards

HW = High Winds

TT = Transportation and Technological Hazards

RH = Roadway Hazards

CH = Civil Hazards

P = Pandemic

County EMA = Perry County Emergency Management Agency

County BOS = Perry County Board of Supervisors

The Town of New Augusta Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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Prevention

P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Deferred
P-4	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Annual County Budget	County BOS & Road Crews	Annual Review	Implemented & Ongoing
P-5	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred based on funding availability.
P-6	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	This action has been deferred due to lack of funding.
P-7	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	TBD	County	Ongoing	Deferred based on funding availability.
P-8	Develop a comprehensive development plan.	All	High	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
P-9	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.

Property Protection

PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	Grants, BRIC HMGP	TBD	County	Ongoing	Deferred due to funds
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	TBD	County	Annual Review	Implemented & Ongoing

Natural Resource Protection

NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding (no action taken)
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Emergency Services

ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	County EMA	Annual Review	Implemented & Ongoing
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ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA, County BOS	Ongoing	Completed and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HGMP, CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA	Ongoing	Implemented & Ongoing
ES-4	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP,	Unknown	County EMA	Contingent on funding	Ongoing
ES-5	Install warning sirens in the County.	TO, HU	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-6	Enhance Central Dispatch and other communications equipment	All	Medium	Grants, BRIC, HMGP,	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-7	Explore Upgrade/enhancement of 911 in Perry County.	All	Low to Medium	Grants, BRIC, HMGP, Self-funded	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-8	Explore potential to install Reverse 911 system.	All	Low to Medium	Grants, BRIC, HMGP	Unknown	County EMA, County	Contingent on funding	Completed & Ongoing
ES-9	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Annual Review	Implemented & Ongoing
ES-10	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented & Ongoing
ES-11	Ensure continuity of utility services for public buildings and other critical facilities. This includes purchasing backup generators and/or transfer switches to existing and future critical assets.	All	High	Grants, BRIC, HMGP	Unknown	County	Ongoing	Implemented & Ongoing
ES-12	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/Annual Review	Ongoing – contingent on funding
ES-13	Host a meeting to review Perry County Comprehensive Emergency Management Plan.	All	Medium	Self-funded	No additional cost	County	Annual Meeting	Implemented & Ongoing
ES-14	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Implemented & Ongoing
ES-15	Explore continuing education programs/opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-Funded, MEMA	Low Cost	County	Ongoing	Implemented & Ongoing

Structural Projects

SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing Contingent on funding	Deferred due to funds
SP-2	Acquisitions of RL/SRL Properties	FL	High	Grants, BRIC, HMGP, EMI	No Cost	County	Ongoing	Implemented & Ongoing

Public Education and Awareness

PEA-1	Explore continuing education programs/opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Grants, BRIC, HMGP, EMI	Low to No Cost	County	Ongoing	Implemented & Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County	Ongoing	Implemented

						EMA		& Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented & Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented & Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Completed & Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev CDBG, Small Muni. Grant, FEMA, Others	Unknown	County	Ongoing	Deferred, no action taken
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic County EMA = Perry County Emergency Management Agency County BOS = Perry County Board of Supervisors								

The Town of Richton Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
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Prevention

P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Deferred
P-4	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, BH	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Annual County Budget	County BOS & Road Crews	Annual Review	Implemented & Ongoing
P-5	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred based on funding availability.
P-6	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	This action has been deferred due to lack of funding.
P-7	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	TBD	County	Ongoing	Deferred based on funding availability.
P-8	Develop a comprehensive development plan.	All	High	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.
P-9	Incorporate the hazard mitigation plan into the comprehensive emergency management plan.	All	Medium	CDBG, MSDA	TBD	County	Ongoing	Deferred based on funding availability.

Property Protection

PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	TBD	County	Ongoing	Implemented & Ongoing
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	Grants, BRIC, HMGP	TBD	County	Ongoing	Deferred due to funds
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	TBD	County	Annual Review	Implemented & Ongoing

Natural Resource Protection

NP-1	Preserve natural wetlands and riparian areas through acquisition of conservation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing – contingent on funding (no action taken)
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Emergency Services

ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	County EMA	Annual Review	Implemented & Ongoing
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ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA, County BOS	Ongoing	Completed and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	HGMP, CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., Self-funded	Unknown	County EMA	Ongoing	Implemented & Ongoing
ES-4	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP,	Unknown	County EMA	Contingent on funding	Ongoing
ES-5	Install warning sirens in the County.	TO, HU	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	
ES-6	Enhance Central Dispatch and other communications equipment	All	Medium	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-7	Explore Upgrade/enhancement of 911 in Perry County.	All	Low to Medium	Grants, BRIC, HMGP, Self-funded	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-8	Explore potential to install Reverse 911 system.	All	Low to Medium	Grants, BRIC, HMGP,	Unknown	County EMA, County	Contingent on funding	Completed & Ongoing
ES-9	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Annual Review	Implemented & Ongoing
ES-10	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented & Ongoing
ES-11	Ensure continuity of utility services for public buildings and other critical facilities. This includes purchasing backup generators and/or transfer switches to existing and future critical assets.	All	High	Grants, BRIC, HMGP,	Unknown	County	Ongoing	Implemented & Ongoing
ES-12	Develop a government services continuity plan.	All	Medium	USDA Rural Dev. CDBG, Small Muni. Grant	Unknown	County	Ongoing/ Annual Review	Ongoing – contingent on funding
ES-13	Host a meeting to review Perry County Comprehensive Emergency Management Plan.	All	Medium	Self-funded	No additional cost	County	Annual Meeting	Implemented & Ongoing
ES-14	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE, Others	Unknown	County	Ongoing	Implemented & Ongoing
ES-15	Explore continuing education programs/ opportunities for first responders, especially in hazardous materials training.	Range	Medium	Self-Funded, MEMA	Low Cost	County	Ongoing	Implemented & Ongoing

Structural Projects

SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing Contingent on funding	Deferred due to funds
SP-2	Acquisitions of RL/SRL Properties	FL	High	Grants, BRIC, HMGP, EMI	No Cost	County	Ongoing	Implemented & Ongoing

Public Education and Awareness

PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Grants, BRIC, HMGP, EMI	Low to No Cost	County	Ongoing	Implemented & Ongoing
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ANNEX G: PERRY COUNTY

PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented & Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented & Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspaper articles.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA/ County	Ongoing	Implemented & Ongoing
PEA-5	Provide education/outreach to communities to encourage participation in the National Flood Insurance Program.	FL	High	N/A	No additional cost	County/ Town/ City	Ongoing	Completed & Ongoing
PEA-6	Encourage participation in the Community Rating System of the NFIP.	FL, HU, TS, TH, HW	Medium	USDA Rural Dev. CDBG, Small Muni. Grant, FEMA, Others	Unknown	County	Ongoing	Deferred, no action taken

FL = Flood

HU = Hurricane

TS = Tropical Storm

TO = Tornado

TH = Thunderstorm

BH = Biological Hazards

HW = High Winds

TT = Transportation and Technological Hazards

RH = Roadway Hazards

CH = Civil Hazards

P = Pandemic

County EMA = Perry County Emergency Management Agency

County BOS = Perry County Board of Supervisors

Annex H

Wayne County

This annex includes jurisdiction-specific information for Wayne County and its participating municipalities. It consists of the following five subsections:

- ★ H.1 Wayne County Community Profile
- ★ H.2 Wayne County Risk Assessment
- ★ H.3 Wayne County Vulnerability Assessment
- ★ H.4 Wayne County Capability Assessment
- ★ H.5 Wayne County Mitigation Strategy

H.1 WAYNE COUNTY COMMUNITY PROFILE

H.1.1 Geography and the Environment

Wayne County is located in southeast Mississippi on the Mississippi/Alabama state line. It comprises one municipality, the City of Waynesboro, as well as many several unincorporated communities. An orientation map is provided as **Figure H.1**.

The county is rural in nature and 82 percent of the land is in commercial forests. Lakes and reservoirs include Silver Lake, Gum Pond, and Waynesboro Lake. Streams, rivers, and creeks include Bull Branch, Maxey Branch, Red Creek, Bee Branch, Maynor Creek, Byrd Branch, Rasher Branch, Yellow Creek, and Stevens Branch. The total area of the county is 814 square miles, 3 square miles of which is water area.

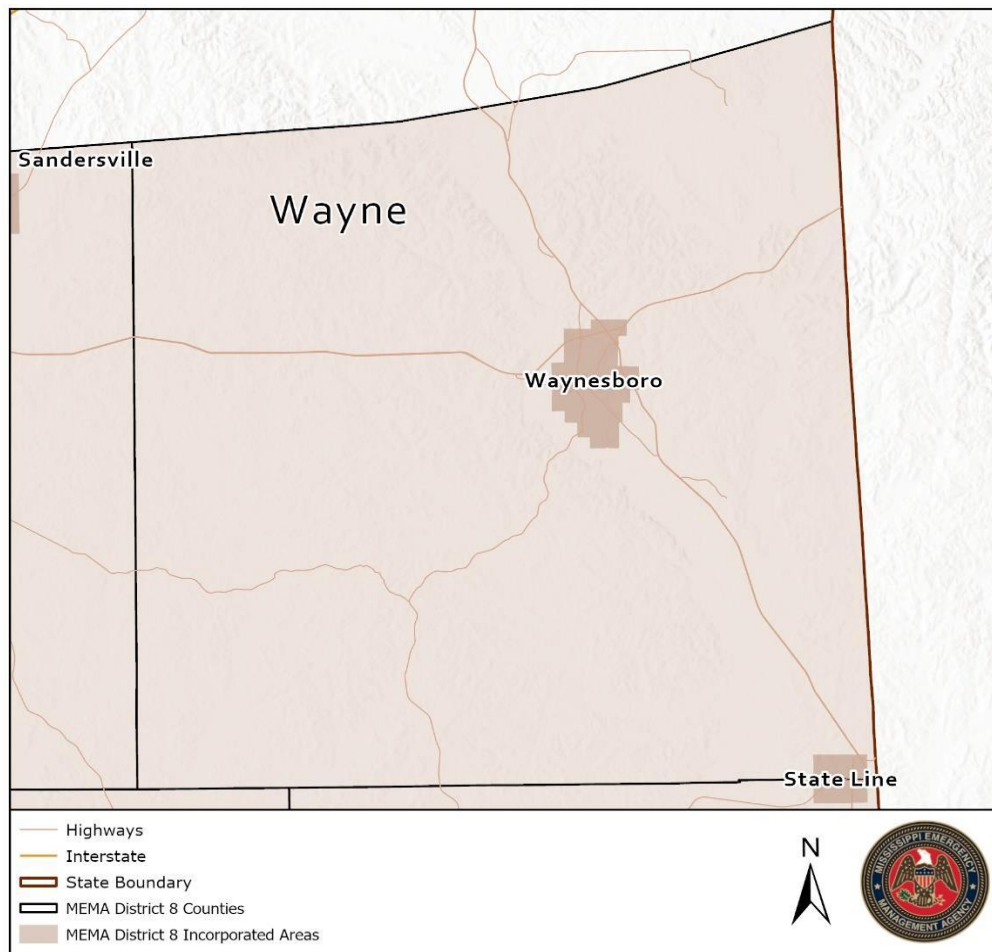
Summer temperatures in the county range from highs of about 91 degrees Fahrenheit (°F) to lows in the upper 60s. Winter temperatures range from highs in the upper 50s to 61°F to lows around 35°F. Average annual rainfall is approximately 57 inches, with the wettest months being December through March.

In Wayne County, the summers are long, hot, and oppressive; the winters are short and cold; and it is wet and partly cloudy year-round. Over the course of the year, the temperature typically varies from 39°F to 91°F and is rarely below 25°F or above 97°F.

The drier season lasts 3 months, from August to October. The smallest chance of a wet day is 21% on October 8. Among wet days, we distinguish between those that experience rain alone, snow alone, or a mixture of the two. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 52% on January 25. Wayne County experiences significant seasonal variation in monthly rainfall. Rain falls throughout the year.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Average High	57	62	69	76	83	89	91	91	86	78	69	59
Average Lows	35	39	45	52	61	68	71	71	65	53	44	37
Average Rainfall	5.78 in	4.75 in	5.42 in	4.14 in	4.79 in	5.26 in	5.07 in	3.95 in	4.14 in	3.1 in	5.05 in	5.41 in

FIGURE H.1: WAYNE COUNTY ORIENTATION MAP



H.1.2 Population and Demographics

According to the 2020 Census, Wayne County has a population of 19,779 people. The county has seen a roughly 5 percent decline in population between 2010 and 2020, and the population density is 24 people per square mile. The decline continues. Per the Census Reports, in 2023, Wayne County had a population of 19,703, which is a 0.3 percent decline. This decrease could lower the vulnerability of the population. The household income is \$34,875, which grew 2 percent. Population counts from the US Census Bureau for 2010, and 2020 for the county and both of the participating jurisdictions are presented in **Table H.1**. Estimates for 2023 are also included.

TABLE H.1: POPULATION COUNTS FOR WAYNE COUNTY

Jurisdiction	2010 Census	2020 Census	% of Change 2010 to 2020	2023 Estimate
Wayne County	20,747	19,779	-5%	19,703
Waynesboro	5,043	4,567	-9%	4499

Source: US Census Bureau

Based on the 2020 Census, the median age of residents of Wayne County is 38.1 years. The racial characteristics of the county are presented in **Table H.2**. Due to the population decrease, the racial characteristics differ slightly. The population of white persons is 57 percent, 40 percent black or African American persons, and 2 percent Hispanic Origin. Whites continue to make up the majority of the population in the county, accounting for 57 percent of the population.

TABLE H.2: DEMOGRAPHICS OF WAYNE COUNTY

Jurisdiction	White Persons (% 2020)	Black Persons (% 2020)	American Indian or Alaska Native (% 2020)	Other Races (% 2020)	Persons of Hispanic Origin (% 2020)
Wayne County	57%	40%	0%	1%	2%
Waynesboro	30%	62%	0%	3%	5%

Source: US Census Bureau

TABLE H.3: AVERAGE INCOME AND HEALTH IN WAYNE COUNTY

Jurisdiction	% of Population Disabled	% of Population without Health Insurance	Median Household Income	% of Population Below The Poverty Level
Wayne County	19%%	18%	\$34,875	26%
Waynesboro	34%	29%	\$24,779	39%

Source: US Census Bureau

H.1.3 Housing

According to the 2020 US Census, there are 9,031 housing units in Wayne County, the majority of which are single family homes or mobile homes. The median home value is \$89,100, which also increased by at least 8.24 percent. The total population and housing units both show a decline which could lead to a decrease in overall vulnerability-based development. Housing information for the county, one town, and one city is presented in **Table H.4**.

TABLE H.4: HOUSING CHARACTERISTICS OF WAYNE COUNTY

Jurisdiction	Housing Units (2010)	Median Home Value (2010)	Housing Units (2020)	Median Home Value (2020)
Wayne County	9,213	\$80,100	9,175	\$89,100
Waynesboro	2,306	\$85,300	2,177	\$85,200

Source: US Census Bureau

H.1.4 Infrastructure

TRANSPORTATION

Wayne County has a robust infrastructure network including Highways 84 and 45, both four-lane divided highways, which provide easy access to the ports of Mobile, New Orleans, and the Mississippi Gulf Coast. State Highway 63 also crosses Wayne County.

The City of Waynesboro has a general aviation airport; however, the nearest commercial airport is the Pine Belt Regional Airport, located about 60 miles away between Laurel and Hattiesburg.

Wayne County is also served by the Meridian Southern Railway, but no passenger service is offered at this time. There are also proposed upgrades to the rail service between Waynesboro and Meridian and rail extensions from Waynesboro to the Port of Pascagoula, and possibly to the Port of Mobile.

UTILITIES

Electrical power in Wayne County is provided by several sources, primarily Dixie Electric Power Association. Some areas are served by East Mississippi Electric Power Association and some by Singing River Electric Power Association.

Water and sewer service is provided to residents by a number of private utility companies. The City of Waynesboro is served by water wells and an activated sludge sewer treatment facility.

COMMUNITY FACILITIES

There are a number of buildings and community facilities located throughout Wayne County. According to the data collected for the vulnerability assessment (Section 6.4.1), there are 2 fire stations, 2 police stations, and 9 public schools located within the county.

There is one hospital located in Wayne County. Wayne General Hospital is an 80-bed medical-surgical hospital located in the City of Waynesboro.

Parks in Wayne County include the Chickasawhay State Wildlife Management Area, Thompson Creek Park, and Busby Game Refuge. Waynesboro is served by two major recreational facilities. The Maynor Creek Water Park is a very popular area for camping, fishing, picnicking, playgrounds, scenic nature trails, swimming, boating, and canoeing. Hogan Park is a 22-acre site operated by the City primarily as a sports complex with four ball fields, but also offering picnicking and playgrounds. Other recreation facilities include Dixie Park, a sports complex with six ball fields adapted for and used as soccer fields. The Eastside and Westside City Parks are playgrounds, and city also contains fairgrounds and a public library.

H.1.5 Land Use

Many areas of Wayne County are undeveloped or sparsely developed due to the county's location just off the Gulf Coast and the conservation of land in state and national parks. There are a few incorporated municipalities located throughout the region, and these areas are where the region's population is generally concentrated. The incorporated areas are also where many businesses, commercial uses, and institutional uses are located. Land uses in the balance of the county generally consist of rural residential development, agricultural uses, and recreational areas.

H.1.6 Employment and Industry

According to the Mississippi Employment Security Commission, in 2024, Wayne County had an average annual employment of 4,937 workers and an average unemployment rate of 6.6 percent (compared to 6.0 percent for the state). In 2024, the Retail Trade industry continues to lead by employing the most people, with 16.1 percent of the workforce, followed by Manufacturing (12.6%) and Transportation and Warehousing (5.8%). The average annual wage in 2024 for Wayne County was \$34,875 compared to \$52,985 for the State of Mississippi.

H.2 WAYNE COUNTY RISK ASSESSMENT

This subsection includes hazard profiles for each of the significant hazards identified in *Section 4: Hazard Identification* as they pertain to Wayne County. Each hazard profile includes a description of the hazard's location and extent, notable historical occurrences, and the probability of future occurrences. Additional information can be found in *Section 5: Hazard Profiles*.

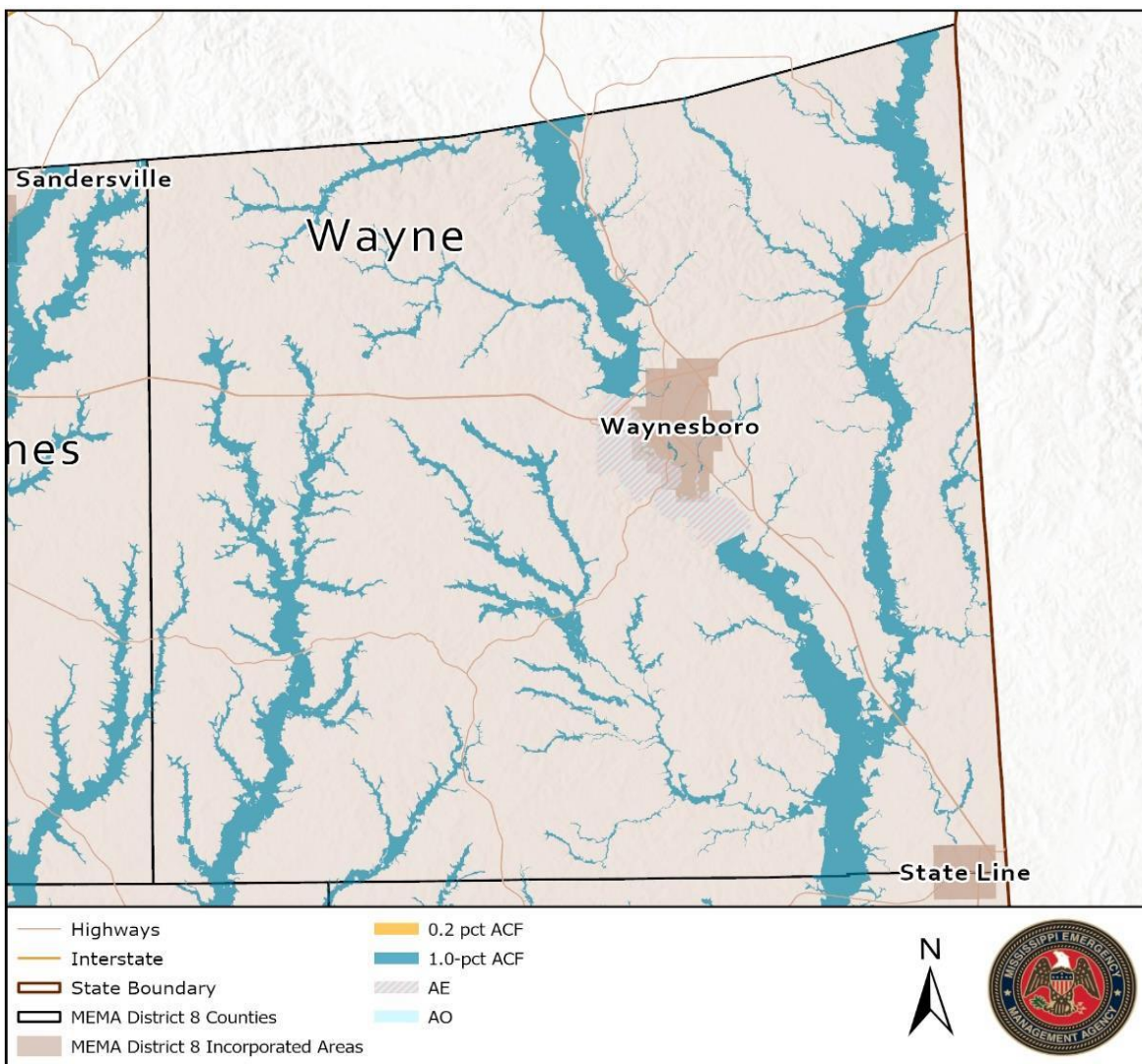
H.2.1 Flood

LOCATION AND SPATIAL EXTENT

There are areas in Wayne County that are susceptible to flood events. Special flood hazard areas in the county were mapped using Geographic Information System (GIS) and FEMA Digital Flood Insurance Rate Maps (DFIRM). This includes Zone A (1-percent annual chance floodplain), Zone AE (1-percent annual chance floodplain with elevation), and the 0.2-percent annual chance floodplain). According to GIS analysis, of the 813 square miles that make up Wayne County, there are 122 square miles of land in zones A and AE (1-percent annual chance floodplain/100-year floodplain) and 0 square miles of land in the 0.2-percent annual chance floodplain (500-year floodplain).

These flood zone values account for 15.0 percent of the total land area in Wayne County. It is important to note that while FEMA digital flood data is recognized as best available data for planning purposes, it does not always reflect the most accurate and up-to-date flood risk. Flooding and flood-related losses often do occur outside of delineated special flood hazard areas.

FIGURE H.2: SPECIAL FLOOD HAZARD AREAS IN WAYNE COUNTY



HISTORICAL OCCURRENCES

Floods resulted in nine disaster declarations in Wayne County in 1973, 1974, 2003, 2009, 2013, 2014, 2016, 2018, and 2020. Information from the National Centers for Environmental Information was used to ascertain historical flood events. The National

Centers for Environmental Information reported a total of 19 events in Wayne County since 2000. A summary of these events is presented in **Table H.5**. These events accounted for over \$1.2M in property damage to the county. Specific information on flood events, including date, type of flooding, and deaths and injuries, can be found in **Table H.6 & H.7**.

TABLE H.5: SUMMARY OF FLOOD OCCURRENCES IN WAYNE COUNTY

LOCATION	Number of Occurrences	Deaths/ Injuries	Property Damage	Crop Damage
<i>Waynesboro</i>	8	0/0	\$70,000	\$0
<i>Unincorporated Area</i>	11	0/0	\$1,140,000	\$0
Wayne County Total:	19	0/0	\$1,211,000	\$0

Source: NCED/NOAA

TABLE H.6: HISTORICAL FLOOD EVENTS IN WAYNE COUNTY

Location	Date	Type	Deaths/ Injuries	Property Damage
The City of Waynesboro				
<i>Waynesboro</i>	4/13/2009	Flash Flood	0/0	\$10,000
<i>Waynesboro</i>	2/4/2010	Flash Flood	0/0	\$0
<i>Waynesboro</i>	3/9/2011	Flash Flood	0/0	\$0
<i>Waynesboro</i>	3/22/2012	Flash Flood	0/0	\$0
<i>Waynesboro</i>	6/5/2013	Flash Flood	0/0	\$0
<i>Waynesboro</i>	7/4/2013	Flash Flood	0/0	\$0
<i>Waynesboro</i>	3/11/2016	Flash Flood	0/0	\$60,000
<i>Waynesboro</i>	7/13/2022	Flash Flood	0/0	\$0
Unincorporated Area in Wayne County				
<i>County Wide</i>	3/3/2001	Flash Flood	0/0	\$10,000
<i>County Wide</i>	7/1/2003	Flash Flood	0/0	\$0
<i>Eastern Portion</i>	3/31/2005	Flash Flood	0/0	\$0
<i>County Wide</i>	8/29/2005	Flash Flood	0/0	\$0
<i>Denham</i>	2/4/2010	Flash Flood	0/0	\$0
<i>Eucutta & Denham</i>	3/9/2011	Flash Flood	0/0	\$20,000
<i>Winchester</i>	7/4/2013	Flash Flood	0/0	\$0
<i>Whistler & Eucutta</i>	3/11/2016	Flash Flood	0/0	\$110,000
<i>Boice</i>	6/22/2017	Flash Flood	0/0	\$0
<i>Mulberry</i>	12/27/2018	Flash Flood	0/0	\$1,000,000
<i>County</i>	8/25/2022	Flash Flood	0/0	\$0

Source: NCED/NOAA

TABLE H.7: EXTENT: FLOOD EVENTS IN WAYNE COUNTY SINCE THE LAST UPDATE

Wayne County: \$0

Location	Date	Loss	Cause	Impact
Waynesboro	7/13/2022	\$0	Slow moving thunderstorms caused heavy rain which produced flooding in southeast Mississippi.	Heavy rain caused flooding on several streets in Waynesboro.
County	8/25/2022	\$0	A wet pattern continued across the Gulf Coast as additional heavy rain led to numerous flooding reports across southwest Alabama and southeast Mississippi.	• Water over the roadway near Winchester Cross Road near Highway 45. • Water over the roadway on Bud Stevens Roads off Big Creek Road. • Heavy rain caused water to cover several roads in southern Wayne County.

HISTORICAL SUMMARY OF INSURED FLOOD LOSSES

Recently, FEMA issued a directive that requires local governments or jurisdictions to request NFIP information such as rep loss or severe rep loss data directly from them. FEMA will not share it with the State and/or State Planners. The information was requested from the local jurisdiction on multiple occasions. As a result, for continuity of information so that the reader will have an idea of the historical occurrences along with the corresponding damage amounts, the information provided is a combination of new information shared by the local jurisdictions, and the existing information in cases where the information was not provided for the plan.

According to FEMA flood insurance policy records as of March 2023, there have been 24 flood losses reported in Wayne County through the National Flood Insurance Program (NFIP) since 1978, totaling over \$251,000 in claims payments. A summary of these figures for the county is provided in **Table H.7**. It should be emphasized that these numbers include only those losses to structures that were insured through the NFIP policies, and for losses in which claims were sought and received. It is likely that many additional instances of flood loss in Wayne County were either uninsured, denied claims payment, or not reported.

REPETITIVE LOSS PROPERTIES

No updates to this section can be provided at this time. Information normally used to update this section is not currently accessible. As a result, this information will remain the same for historical purposes.

As of May 2023, there are three non-mitigated repetitive loss properties located in Wayne County, which accounted for 11 losses and more than \$118,000 in claims payments under the NFIP. The average claim amount for these properties is \$10,803. Of the three properties, one is single family residential and two are non-residential. Without mitigation these properties will likely continue to experience flood losses. **Table H.8** presents detailed information on repetitive loss properties and NFIP claims and policies for Wayne County.

TABLE H.8: SUMMARY OF INSURED FLOOD LOSSES AND REPETITIVE LOSSES IN WAYNE COUNTY

Location	Flood Losses	Claim Payments	Repetitive Loss Properties	Number of Properties	Number of Losses	Total Payments	Average Payments
Waynesboro	17	\$134,036		3	11	\$118,826	\$10,803
Unincorporated Area	6	\$117,636		0	0	\$0	\$0
Wayne County Total:	23	\$251,672		3	11	\$118,828	\$10,803

Source: FEMA, NFIP

PROBABILITY OF FUTURE OCCURRENCES

Flood events will remain a threat in Wayne County, and the probability of future occurrences will remain likely (between 10 and 100 percent annual probability). The participating jurisdictions and unincorporated areas have risk to flooding, though not all areas will experience flood. The probability of future flood events based on magnitude and according to best available data is illustrated in the figures above, which indicates those areas susceptible to the 1-percent annual chance flood (100-year floodplain) and the 0.2-percent annual chance flood (500-year floodplain).

It can be inferred from the floodplain location maps, previous occurrences, and repetitive loss properties that risk varies throughout the county. For example, the eastern half of the county has more floodplain and thus a higher risk of flood than the western half of the county. Flood is not the greatest hazard of concern but will continue to occur and cause damage. Therefore, mitigation actions may be warranted, particularly for repetitive loss properties.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding can lead to cascading effects and can also lead to flooding in areas that do not usually flood.

H.2.2 Erosion

LOCATION AND SPATIAL EXTENT

Erosion in Wayne County is typically caused by flash flooding events. Unlike coastal areas, areas of concern for erosion in Wayne County are primarily rivers and streams. Generally, vegetation helps to prevent erosion in the area, and it is not an extreme threat to any of the participating counties and jurisdictions. No areas of concern were reported by the planning committee.

HISTORICAL OCCURRENCES

Several sources were vetted to identify areas of erosion in Wayne County. This includes searching local newspapers, interviewing local officials, and reviewing previous hazard mitigation plans. No historical erosion occurrences were found in these sources.

PROBABILITY OF FUTURE OCCURRENCES

Erosion remains a natural, dynamic, and continuous process for Wayne County, and it will continue to occur. The annual probability level assigned for erosion is possible (between 1 and 10 percent annually).

If the climate continues to change as scientists predict, the higher intensity and magnitude of storms and the increasing drought and high heat days, can lead to erosion in areas that have not been impacted by erosion in the past.

As the climate continues to change, the chance of heavy rain leading to flash flooding could increase in frequency, intensity, and magnitude. With the increasing frequency and intensity, heavy rains and flash flooding cascading effects are possible such as erosion of soil from the ground, under/ around trees, and under roads. This can lead to falling trees, power outages, and road damage.

H.2.3 Dam Failure

LOCATION AND SPATIAL EXTENT

During the plan update, the Mississippi Division of Environmental Quality, recognized that there are no high hazard dams in Wayne County.

Per the updated information provided by the Mississippi Division of Environmental Quality, there are no high hazard dams within Wayne County. All records indicate that there are now 28 low hazard dams within the county.

According to a consensus of local government officials and the Regional Hazard Mitigation Council, a majority of these dams would not pose a major threat in a breach or failure occurrence.

HISTORICAL OCCURRENCES

There is no record of dam breaches in Wayne County. However, several breach scenarios in the county could be catastrophic.

PROBABILITY OF FUTURE OCCURRENCES

Given the current dam inventory and historic data, a dam breach is unlikely (less than 1 percent annual probability) in the future. However, as has been demonstrated in the past, regular monitoring is necessary to prevent these events.

H.2.4 Winter Storm and Freeze

LOCATION AND SPATIAL EXTENT

Nearly the entire continental United States is susceptible to winter storm and freeze events. Some ice and winter storms may be large enough to affect several states, while others might affect limited, localized areas. The degree of exposure typically depends on the normal expected severity of local winter weather. Wayne County is not typically affected by major severe winter weather conditions and seldom receives extremely devastating winter weather, even during the winter months. Given the atmospheric nature of the hazard the entire county has uniform exposure to a winter storm.

HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information, there have been a total of 12 recorded winter storm events in Wayne County since 2000. These events were reported to cause \$10 thousand in damages. Detailed information on the recorded winter storm events can be found in **Table H.9**.

TABLE H.9: HISTORICAL WINTER STORM IMPACTS IN WAYNE COUNTY

Date	Type	Injuries/ Deaths	Property Damage
1/27/2000	Sleet	0/0	\$0
12/21/2000	Winter Storm	0/0	\$0
1/1/2001	Winter Storm	0/0	\$0
1/1/2002	Winter Storm	0/0	\$0
1/19/2008	Heavy Snow	0/0	\$0
12/11/2008	Winter Weather	0/0	\$0
2/12/2010	Winter Storm	0/0	\$0
1/28/2014	Winter Storm	0/0	\$0
3/5/2015	Sleet	0/0	\$0
1/6/2017	Ice Storm	0/0	\$10,000
12/8/2017	Heavy Snow	0/0	\$0
1/16/2018	Winter Storm	0/0	\$0
Wayne County Total: 12		0/0	\$10,000

Source: NCED/NOAA

There have been several severe winter weather events in Wayne County. The text below describes two of the major events and associated impacts on the county. Similar impacts can be expected with severe winter weather.

January 2002 Winter Storm—A winter storm produced heavy snow across portions of southeast Mississippi. The heaviest snow recorded during the storm was four to four- and one-half inches. Icy bridges made traveling across the region very treacherous. As a result, several accidents occurred with two fatalities in Jones County.

January 2008 Winter Storm—This storm produced heavy snow across the region, with an average of three to four inches of snow. Some heavier amounts, between four to five inches, also fell in isolated areas. At the height of the snow, temperatures fell to near freezing, and accumulations occurred on roadways resulting in a number of traffic accidents. Additionally, some power outages occurred in the heaviest snow band due to the weight of wet snow on limbs and lines. The heaviest snow fell in the areas around Covington, Jefferson Davis, and Jones Counties.

January 2018 Winter Storm—A winter weather event occurred across the area beginning on January 16th and on into January 17th across the Gulf Coast. This event came with measurable snow with low temperatures in the 20's. The winter accumulation resulted in very hazardous traveling conditions particularly over bridges and overpasses. Several roads were closed throughout the area. The National Weather Service indicated the area received two to three inches of snow.

Winter storms throughout the county have several negative externalities including hypothermia, cost of snow and debris cleanup, business and government service interruption, traffic accidents, and power outages. Furthermore, citizens may resort to using inappropriate heating devices that could cause a fire or an accumulation of toxic fumes.

PROBABILITY OF FUTURE OCCURRENCES

Winter storm events will continue to occur in Wayne County. According to historical information, the annual probability is possible (between 1 and 10 percent).

H.2.5 Drought

LOCATION AND SPATIAL EXTENT

Drought and heat waves typically cover a large area and cannot be confined to any geographic or political boundaries. Furthermore, it is assumed that Wayne County would be uniformly exposed to drought and heat waves, making the spatial extent potentially widespread. It is also notable that drought and extreme heat conditions typically do not cause significant damage to the built environment but may exacerbate wildfire conditions.

HISTORICAL OCCURRENCES

Drought

According to the U.S. Drought Monitor, Wayne County had drought levels (including abnormally dry) in all of the last sixteen years (2000-2024). Records show that there were no measurable drought events. Table H.10 shows the most severe drought classification for each year, according to U.S. Drought Monitor classifications. It should be noted that the U.S. Drought Monitor also estimates what percentage of the county is in each classification of drought severity. For example, the most severe classification reported may be exceptional, but a majority of the county may actually be in a less severe condition.

TABLE H. 10: HISTORICAL DROUGHT OCCURRENCES IN WAYNE COUNTY

Abnormally DryModerate DroughtSevere DroughtExtreme DroughtExceptional Drought

Location	Date	Injuries/Deaths	Property Damage	Crop Damage	Event/Severity
Wayne County	10/1/2016	0/0	\$0	\$0	D2
Wayne County	11/1/2016	0/0	\$0	\$0	D3
Wayne County	12/1/2016	0/0	\$0	\$0	D3
Total:	3	0/0	\$0	\$0	

Source: NCED/NOAA

The National Centers for Environmental Information reported three drought events for Wayne County; however, there was no property or crop damages associated with these events.

October to December 2016—An extensive period of dry weather resulted in worsening drought conditions across southeast Mississippi, with severe drought developing over a portion of inland southeast Mississippi. Severe (D2) drought conditions developed through the month of October. For most of inland southeast Mississippi, no measurable rain was recorded for the entire month with the last significant rain occurring in mid to late September.

A prolonged period of dry weather resulted in worsening drought conditions across southeast Mississippi. By the end of November, the entire region was under Extreme (D3) Drought. The entire area saw rain totals less than 50% of normal for the month, with many areas receiving less than 10% of normal. This lack of rain came on the heels of one of the driest Octobers on record.

A prolonged period of dry weather continued through much of December resulting in continued drought conditions across southeast Mississippi. Severe (D2) and Extreme (D3) drought conditions were found across much of the region. A couple of rain events late in the month helped to improve conditions.

Heat Wave

The National Centers for Environmental Information was used to determine historical heat wave occurrences in the county.

Summer of 2000—Hot temperatures persisted from July to September across the South and Plains. Known as the Summer of 2000 Heat Wave, high temperatures commonly peaked over 100 degrees. There were several days over 90 degree than the typical average. This was the fourth warmest July-August on record. In Waynesboro the temperature was 100 degrees or higher four days during the month with the hottest being 103 degrees.

August 2007—A heat wave gripped most of the area with the warmest temperatures since 2000. It lasted from August 5th to the 16th.

PROBABILITY OF FUTURE OCCURRENCES

Drought

Based on historical occurrence information, it is assumed that all of Wayne County has a probability level of highly likely (100 percent annual probability) for future drought events. However, the extent (or magnitude) of drought and the amount of geographic area covered by drought, varies with each year. Historic information indicates that there is a much lower probability for extreme, long-lasting drought conditions. But, if the climate continues to warm, this could lead to more droughts with higher magnitude.

Heat Wave

Based on historical occurrence information, it is assumed that all of Wayne County has a probability level of highly likely (100 percent annual probability) for future heat wave events.

If temperatures continue to rise as climate change occurs, it could increase the impacts, intensity, and duration of droughts and extreme temperatures. These increases could have a large impact on the counties' crops, economy, and population.

H.2.6 Wildfire

LOCATION AND SPATIAL EXTENT

The entire county is at risk to a wildfire occurrence. However, several factors such as drought conditions or high levels of fuel on the forest floor, may make a wildfire more likely. Furthermore, areas in the urban-wildland interface are particularly

susceptible to fire hazard as populations abut formerly undeveloped areas. The Fire Occurrence Areas in the figure below give an indication of historic location.

HISTORICAL OCCURRENCES

Based on data from the Mississippi Forestry Commission from 2010 to 2023, Wayne County experiences an average of 27 wildfires annually which burn an average of 193 acres per year. The data indicates that most of these fires are small, averaging seven acres per fire. **Table H.11** provides a summary of wildfire occurrences in Wayne County since the last update, and **Table H.12** lists the number of reported wildfire occurrences in the county between the years 2010 and 2023.

TABLE H.11: SUMMARY TABLE OF ANNUAL WILDFIRE OCCURRENCES (2019 -2023) *

Wayne County	
Average Number of Fires per year	16.2
Average Number of Acres Burned per year	225
Average Number of Acres Burned per fire	13.89

Source: MS Forestry Commission

TABLE H.12: HISTORICAL WILDFIRE OCCURRENCES IN WAYNE COUNTY

Wayne County														
Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Number of Fires	51	57	33	22	44	14	47	15	12	10	10	15	16	30
Number of Acres Burned	321	349	108	85	245	67	480	355	183	95	253	163	259	355

Source: US Forestry Commission

PROBABILITY OF FUTURE OCCURRENCES

Wildfire events will be an ongoing occurrence in Wayne County. The likelihood of wildfires increases during drought cycles and abnormally dry conditions. Fires are likely to stay small in size but could increase due local climate and ground conditions. Dry, windy conditions with an accumulation of forest floor fuel (potentially due to ice storms or lack of fire) could create conditions for a large fire that spreads quickly. It should also be noted that some areas do vary somewhat in risk. For example, highly developed areas are less susceptible unless they are located near the urban-wildland boundary. The risk will also vary due to assets. Areas in the urban-wildland interface will have much more property at risk, resulting in increased vulnerability and need to mitigate compared to rural, mainly forested areas. In this case, the participating jurisdictions appear to have a similar risk to the surrounding areas. The probability assigned to Wayne County for future wildfire events is likely (a 10 and 100 percent annual probability).

If temperatures continue to rise as climate change occurs, it could cause more droughts and extreme temperatures. The increase in of these could have a negative impact or wildfires. Extreme heat and drought can cause plants to become dry and brittle which makes the area more susceptible to wildfires.

If the predicted increase in heavy rains occurs, it can also cause flooding and erosion, which can also make the area more susceptible to wildfires.

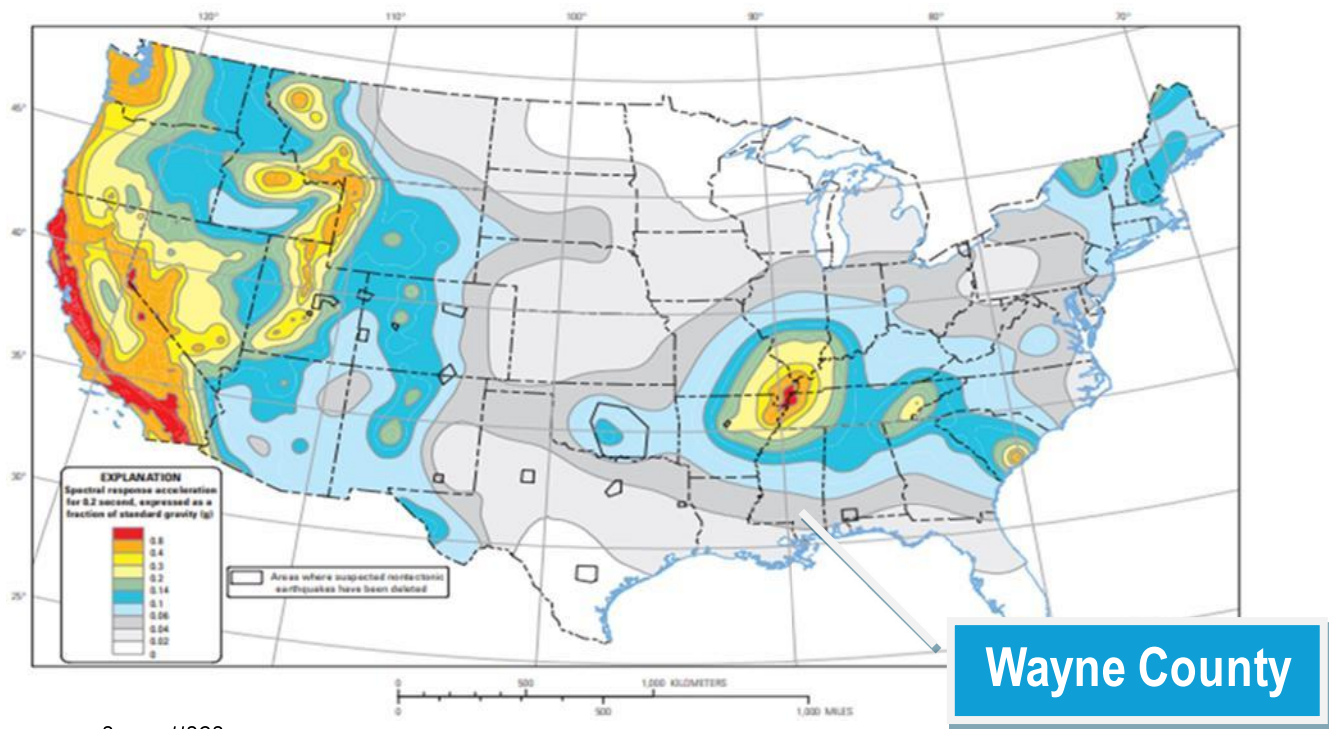
H.2.7 Earthquake

LOCATION AND SPATIAL EXTENT

Figure H.3 shows the intensity level associated with Wayne County, based on the national USGS map of peak acceleration with 10 percent probability of exceedance in 50 years. It is the probability that ground motion will reach a certain level during an

earthquake. The data show peak horizontal ground acceleration (the fastest measured change in speed, for a particle at ground level that is moving horizontally due to an earthquake) with a 10 percent probability of exceedance in 50 years. The map was compiled by the U.S. Geological Survey (USGS) Geologic Hazards Team, which conducts global investigations of earthquake, geomagnetic, and landslide hazards. According to this map, Wayne County lies within an approximate zone of level “2” to “3” ground acceleration. This indicates that the county exists within an area of moderate seismic risk.

FIGURE H.3: PEAK ACCELERATION WITH 10 PERCENT PROBABILITY OF EXCEEDANCE IN 50 YEARS



HISTORICAL OCCURRENCES

No earthquakes are known to have affected Wayne County since 1638. Table H.13 provides a summary of earthquake events reported by the National Geophysical Data Center between 1638 and 2024.

TABLE H.13: SUMMARY OF SEISMIC ACTIVITY IN WAYNE COUNTY

Location	Date	Number of Occurrences	Greatest MMI Reported	Richter Scale Equivalent
Waynesboro	--	0	--	--
Unincorporated Area	--	0	--	--
Wayne County Total:		0	--	--

PROBABILITY OF FUTURE OCCURRENCES

The probability of significant, damaging earthquake events affecting Wayne County is unlikely. However, it is possible that future earthquakes resulting in light to moderate perceived shaking and damages ranging from none to very light will affect the county. The annual probability level for the region is estimated to be less than 1 percent (unlikely).

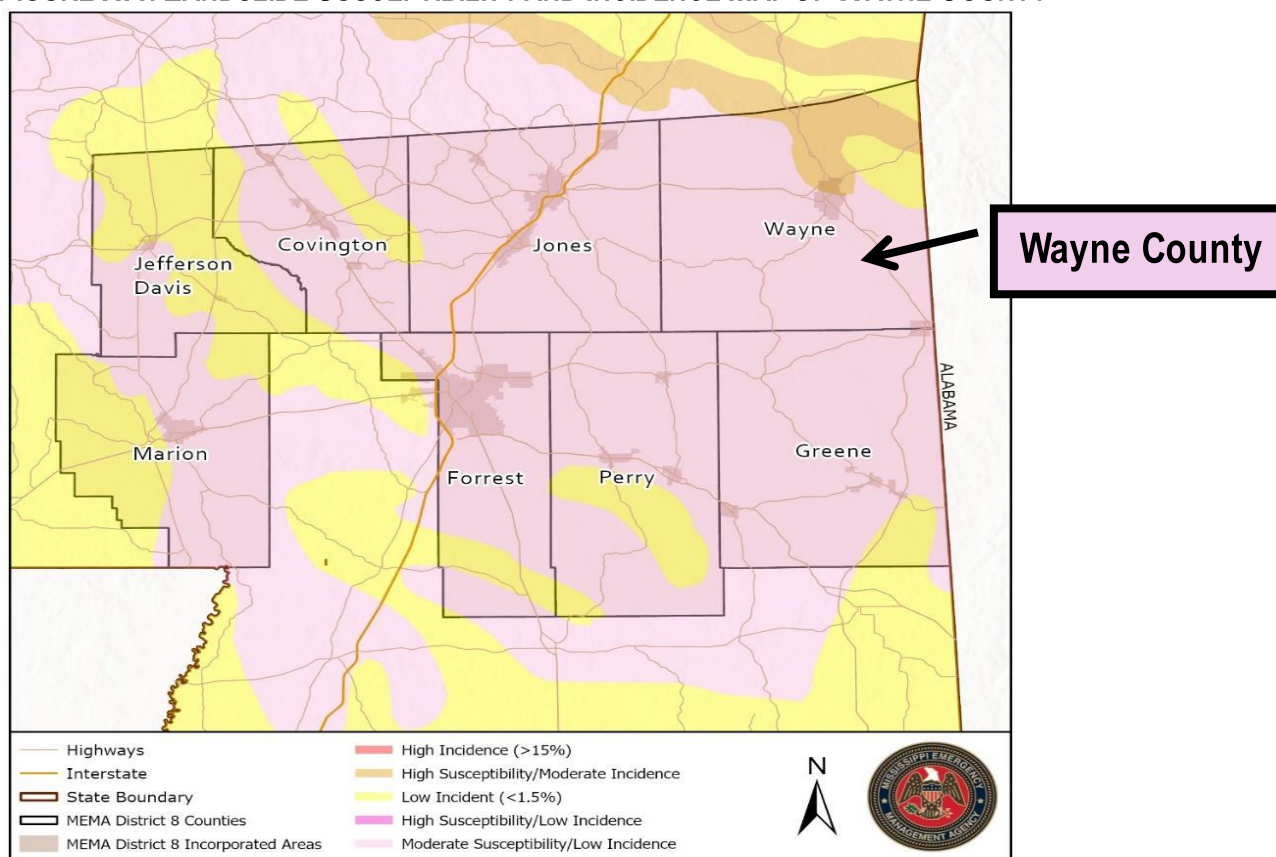
H.2.8 Landslide

LOCATION AND SPATIAL EXTENT

Landslides occur along steep slopes when the pull of gravity can no longer be resisted (often due to heavy rain). Human development can also exacerbate risk by building on previously undevelopable steep slopes. Landslides are possible throughout Wayne County.

According to **Figure H.4** below, the entire county falls under a low incidence area (yellow and light pink). This indicates that less than 1.5 percent of the area is involved in land sliding. The areas in yellow are defined as low incidence and low susceptibility. The areas in light pink, however, indicate that a moderate susceptibility to land sliding activity is present. In addition, there is a small area of land in the northeast corner of the county (depicted in orange) reported as high susceptibility and moderate incidence. This area is the area at greatest risk to land sliding according to the United States Geological Survey data. There are no changes with susceptibility to the landslide hazard since the last plan update.

FIGURE H.4: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP OF WAYNE COUNTY



HISTORICAL OCCURRENCES

There is no extensive history of landslides in Wayne. Landslide events typically occur in isolated areas.

PROBABILITY OF FUTURE OCCURRENCES

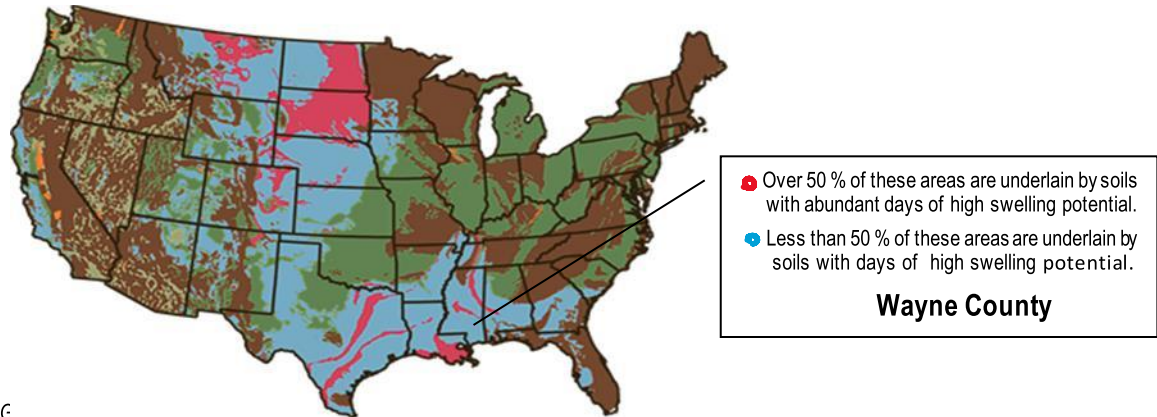
Based on historical information and the USGS susceptibility index, the probability of future landslide events is possible (1 to 10 percent probability). The USGS data indicates that nearly all areas in Wayne County have a low landslide incidence rate except for a small area in the northeast corner that is reported to have a moderate incidence rate. However, most areas are reported as having moderate or high susceptibility to land sliding activity. Local conditions may become more favorable for landslides due to heavy rain, for example. This would increase the likelihood of occurrence. It should also be noted that some areas in Wayne County have greater risk than others given factors such as steepness on slope and modification of slopes. Also, as the climate continues to change, scientists believe that the intensity, magnitude, and frequency of heavy rains will increase. This could cause cascading effects that could possibly lead to land sliding.

H.2.7 Expansive Soils

LOCATION AND SPATIAL EXTENT

Due to the amount of clay minerals present in Wayne County, expansive soils present a threat to the county. Areas underlain by soils with swelling potential are shown in **Figure H.5**. The areas in blue are underlain with generally less than 50 percent clay having high swelling potential.

FIGURE H.5: SWELLING CLAYS IN MISSISSIPPI



Source: USG _

HISTORICAL OCCURRENCES

There is no historical record of significant expansive soil events in Wayne County. However, expansive soils can cause considerable damage to structural foundations in the county, although they do not pose a significant threat to human life.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical information, the probability of future expansive soil events is possible (between 1 and 100 percent annually).

H.2.10 Hurricane and Tropical Storm

LOCATION AND SPATIAL EXTENT

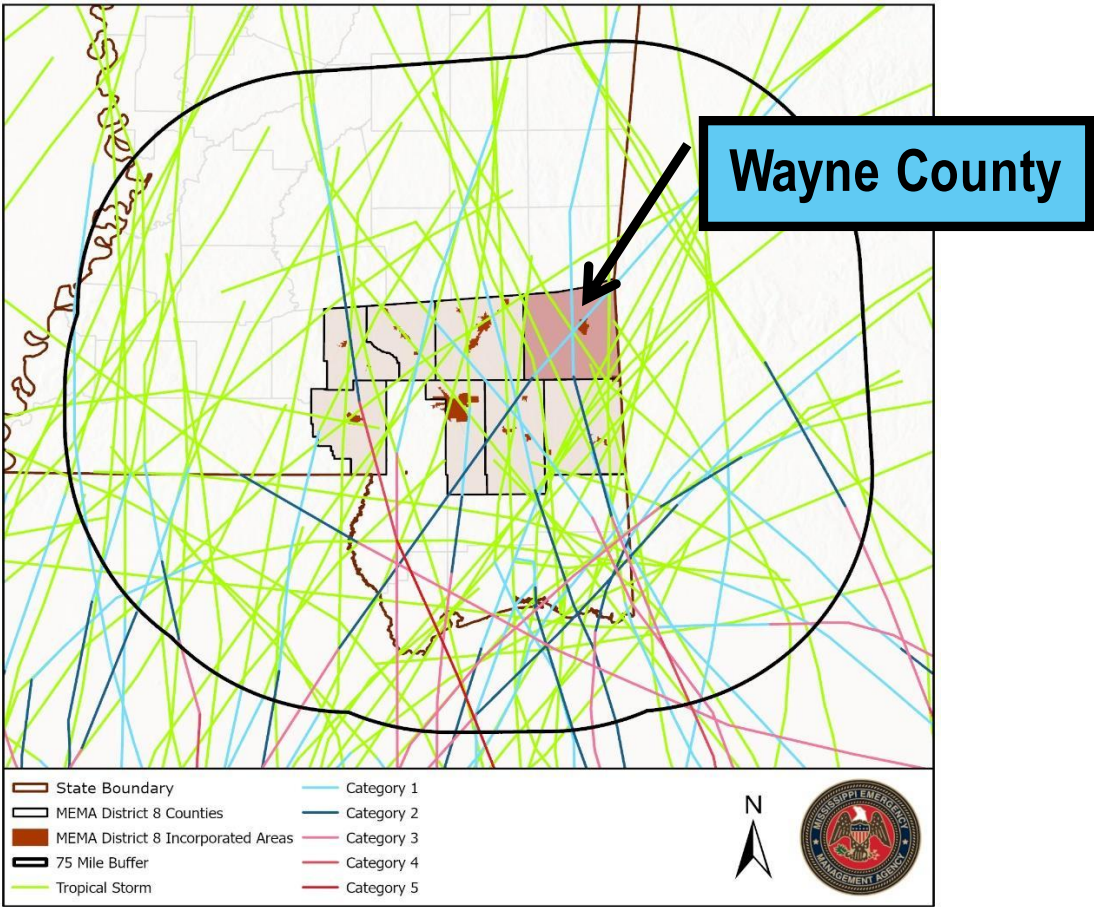
Hurricanes and tropical storms threaten the entire Atlantic and Gulf seaboard of the United States. While coastal areas are most directly exposed to the brunt of landfalling storms, their impact is often felt hundreds of miles inland and major hurricanes (category 3 or higher) may impact Wayne County. All areas in Wayne County are equally susceptible to hurricane and tropical storms.

HISTORICAL OCCURRENCES

According to the National Hurricane Center’s historical storm track records, a total of 64 hurricanes have passed within 75 miles of the county since 1851. This includes 1 category 5 storm, 1 category 4 storm, 8 category 3 storms, 4 category 2 storms, 9 category 1 storms, and 41 tropical storms as shown in **Figure H.6**.

Of the recorded storm events, a total of 12 tracks passed directly through the county including the Unnamed Hurricane of 1855, Unnamed Hurricane of 1860, and Hurricane Frederic (1979). All of these events were tropical storms when they traversed the county except three aforementioned hurricanes. The Unnamed Hurricanes passed through as Category 1 storms and Frederic passed through as a Category 2 storm. **Table H.14** provides the detail for each storm that passed through the county including date of occurrence, name (if applicable), maximum wind speed (as recorded when traversing the county) and category of the storm based on the Saffir-Simpson Scale.

FIGURE H.6: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES OF WAYNE COUNTY



Federal records indicate that disaster declarations were made in 1969 (Hurricane Camille), 1979 (Hurricane Frederic), 1998 (Hurricane Georges), 2004 (Hurricane Ivan), 2005 (Hurricane Dennis), 2005 (Hurricane Katrina), 2012 (Hurricane Isaac), 2020 (Hurricane Zeta), and 2021 (Hurricane Ida). Hurricane and tropical storm events can cause substantial damage in the area due to high winds and flooding.

TABLE H.14: HISTORICAL STORM TRACKS WITHIN 75 MILES OF WAYNE COUNTY (1850–2024)

Date of Occurrence	Storm Name	Maximum Wind Speed (mph)	Storm Category
--------------------	------------	--------------------------	----------------

9/16/1855	UNNAMED	81	Category 1
9/15/1860	UNNAMED	81	Category 1
8/13/1881	UNNAMED	46	Tropical Storm
9/12/1892	UNNAMED	46	Tropical Storm
9/22/1907	UNNAMED	40	Tropical Storm
6/13/1912	UNNAMED	52	Tropical Storm
9/14/1912	UNNAMED	46	Tropical Storm
10/16/1932	UNNAMED	46	Tropical Storm
9/16/1939	UNNAMED	40	Tropical Storm
9/10/1944	UNNAMED	40	Tropical Storm
9/16/1960	Hurricane Ethel	40	Tropical Storm
8/18/1969	Hurricane Camille	130	Category 3
9/13/1979	Hurricane Fredrick	109	Category 2
8/4/1995	Hurricane Erin	52	Tropical Storm
9/25/1998	Hurricane George	Unknown	Tropical Storm
9/14/2004	Hurricane Ivan	50	Tropical Storm
7/10/2005	Hurricane Dennis	55	Tropical Storm
8/29/2005	Hurricane Katrina	135	Category 3
9/1/2008	Hurricane Gustav	50	Tropical Storm
8/29/2012	Hurricane Isaac	45	Tropical Storm
10/7/2017	UNNAMED	60	Tropical Storm
10/28/2020	Hurricane Zeta	40	Tropical Storm
8/30/2021	Hurricane Ida	50	Tropical Storm
Total:	23	--	--

Source: National Hurricane Center and NCED/NOAA

Flooding and high winds from hurricanes and tropical storms can cause damage throughout the county. Anecdotes are available from NCEI for the major storms that have impacted the county as found below:

August 20, 1995—Hurricane Erin moved out of Washington County, Alabama into Greene and Wayne Counties in Mississippi. The storm moved generally along Highway 45 passing just south of Waynesboro. Trees and power lines were blown down across Northern Greene, Northern Perry and most of Wayne Counties as Erin moved northwest. Some homes were damaged along Highway 45 and in the cities of Buckatunna and Waynesboro. Most of the damage was from trees falling on homes or shingles being blown from roofs. Wind speeds of 50 to 60 mph were estimated in Waynesboro. Preliminary damage estimates in these three counties was around \$100 thousand.

September 16, 2004—Hurricane Ivan caused thousands of trees were blown down across Eastern Mississippi during the event as well as hundreds of power lines. The strong wind itself did not cause much structural damage, however the fallen trees did. These downed trees accounted for several hundred homes, mobile homes and businesses to be damaged or destroyed. Most locations across Eastern Mississippi reported sustained winds between 30 and 40 mph with Tropical Storm force gusts between 48 and 54 mph. The strongest reported winds occurred in Newton, Lauderdale and Oktibbeha Counties.

Overall, rainfall totals were held in check as Ivan steadily moved north. The heaviest rains were confined to far Eastern Mississippi where 3 to 4 inches fell over a 15-hour period. Due to the duration of the rain no flooding was reported. Across Eastern Mississippi, Hurricane Ivan was responsible for one fatality. This fatality occurred in Brooksville (Noxubee County) when a tree fell on a man. Damage from Ivan was estimated at \$200 million.

August 25, 2005—Hurricane Katrina will likely go down as the worst and costliest natural disaster in United States history. The amount of destruction, the cost of damaged property/agriculture and the large loss of life across the affected region has been overwhelming. Catastrophic damage was widespread across a large portion of the Gulf Coast region. The devastation was not only confined to the coastal region, widespread and significant damage occurred well inland up to the Hattiesburg area and northward past Interstate 20.

Devastation from Hurricane Katrina was widespread across the region. Hurricane force winds were common across the area. The region received sustained winds of 60-80 mph with gusts ranging from 80-120 mph. There was widespread damage to trees and power lines. Wind damage to structures was also widespread, with roofs blown off or partially peeled. Hundreds of signs were shredded or blown down. Businesses sustained structural damage. Power outages lasted from a few days to as long as four weeks. Agriculture and timber industries were severely impacted. Row crops, including cotton, rice, corn, and soybeans, took a hard hit. Other impacted industries were the catfish industry, dairy and cattle industry, and nursery businesses.

September 1, 2008—Hurricane Gustav was the 2nd major hurricane of the 2008 Atlantic Hurricane Season. Tropical storm force winds occurred across Marion County as the outer edges of Hurricane Gustav moved across southern Louisiana. Scattered trees and power lines were blown down, especially across the southern portion of the county. Wind gusts peaked between 45 and 55 mph for a few hours.

August 29, 2012—Isaac moved very slowly to the north and northwest over the course of August 29th, which made for prolonged impacts. Forward motion of about 5 mph led to tremendous flooding issues for both Louisiana and portions of Mississippi south of I-20. Around noon on August 29th, Isaac was downgraded to a Tropical Storm, but this was not much relief to the many residents who were being inundated with rain and wind. Storm total rainfall across portions of Marion County indicated at least 10 to 15 inches fell. Numerous homes and buildings were flooded, and some water rescues occurred in Lamar, Marion and Clarke counties. By midafternoon on the 29th trees were blown down across the county, with a few power outages occurring. At midnight, roof damage occurred to a home southwest of Columbia with water leaking into the house. Strong winds continued into the morning hours before subsiding.

August 29, 2021—Major hurricane Ida made landfall as a strong category four hurricane around 11:55am on August 29 near Grand Isle, LA. It then moved very slowly north through south central Louisiana and into Mississippi on August 30. It then turned northeast and moved across the Jackson metro area as a tropical storm and into northeast Mississippi as a tropical depression through the early morning of August 31. Ida brought tropical storm force gusts to portions of Mississippi, which brought down trees and power lines. Rainfall amounts of 4-8 inches occurred, which resulted in localized flooding. Tropical storm force wind gusts resulted in several trees and power lines downed across the county.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical evidence, the probability level of future occurrence is likely (annual probability between 10 and 100 per cent). Given the regional nature of the hazard, all areas in the county are equally exposed to this hazard. However, when the county is impacted, the damage could be catastrophic, threatening lives and property throughout the planning area.

Scientists and meteorologists predict tropical cyclones to increase in frequency, magnitude, and intensity as the climate continues to change. These increases could be catastrophic to MS Coastal areas and the counties near the coast. Scientists also predict that hurricanes could increase in frequency and strength in the near future due the effects of Climate Change. This can be seen in the 2023 season with 23 named storms, 11 hurricanes, and 5 major hurricanes. This prediction makes the season the third most active season on record, behind the 2005 season with 28, and the 2020 season with a total of 30. It is expected that an above-average season next season with up to 25 named storms and 4-7 major hurricanes.

H.2.11 Thunderstorm

LOCATION AND SPATIAL EXTENT

Thunderstorm / High Wind

A thunderstorm event is an atmospheric hazard, and thus has no geographic boundaries. It is typically a widespread event that can occur in all regions of the United States. However, thunderstorms are most common in the central and southern states because atmospheric conditions in those regions are favorable for generating these powerful storms. Also, Wayne County typically experiences several straight-line wind events each year. These wind events can and have caused significant damage. It is assumed that Wayne County has uniform exposure to an event and the spatial extent of an impact could be large.

Hailstorm

Hailstorms frequently accompany thunderstorms, so their locations and spatial extents coincide. It is assumed that Wayne County is uniformly exposed to severe thunderstorms; therefore, all areas of the county are equally exposed to hail which may be produced by such storms.

Lightning

Lightning occurs randomly; therefore, it is impossible to predict where and with what frequency it will strike. It is assumed that all of Wayne County is uniformly exposed to lightning.

HISTORICAL OCCURRENCES

Thunderstorm / High Wind

Severe storms resulted in eight disaster declarations in Wayne County in 2003, 2009, 2013, 2014, 2016, 2018, 2020, and 2023. According to NCED, there have been 69 reported thunderstorm and high wind events since 2000 in Wayne County. These events caused over \$523,000 in damages and one reported injury. **Table H.15** summarizes this information. **Table H.16** presents detailed thunderstorm and high wind event reports including date, magnitude, and associated damages for each event.

TABLE H.15: SUMMARY OF THUNDERSTORM / HIGH WIND OCCURRENCES IN WAYNE COUNTY

Location	Number of Occurrences	Injuries	Deaths	Property Damage	Crop Damage
Waynesboro	22	0	0	\$172,000	\$0
Unincorporated Area	42	0	1	\$300,000	\$0
Wayne County Total:	64	0	1	\$472,000	\$0

Source: NCED/NOAA

TABLE H.16: HISTORICAL THUNDERSTORM / HIGH WIND OCCURRENCES IN WAYNE COUNTY

Location	Date	Type	Magnitude	Death/Injuries	Property Damage
The City of Waynesboro					
Waynesboro	4/2/2000	TSTM Wind	60 kts.	0/0	\$5,000
Waynesboro	7/16/2000	TSTM Wind	55 kts.	0/0	\$5,000
Waynesboro	12/16/2000	TSTM Wind	50 kts.	0/0	\$5,000
Waynesboro	3/12/2001	TSTM Wind	60 kts.	0/0	\$5,000
Waynesboro	10/13/2001	TSTM Wind	60 kts.	0/0	\$10,000
Waynesboro	8/25/2002	TSTM Wind	55 kts.	0/0	\$30,000
Waynesboro	8/6/2003	TSTM Wind	50 kts.	0/0	\$5,000
Waynesboro	4/30/2005	TSTM Wind	50 kts.	0/0	\$15,000
Waynesboro	5/24/2005	TSTM Wind	50 kts.	0/0	\$10,000
Waynesboro	1/31/2008	TSTM Wind	50 kts.	0/0	\$25,000
Waynesboro	4/11/2008	TSTM Wind	50 kts.	0/0	\$12,000
Waynesboro	4/4/2011	TSTM Wind	50 kts.	0/0	\$0
Waynesboro	5/26/2011	TSTM Wind	61 kts.	0/0	\$7,000

Waynesboro	6/28/2013	TSTM Wind	52 kts.	0/0	\$3,000
Waynesboro	10/13/2014	TSTM Wind	52 kts.	0/0	\$5,000
Waynesboro	2/15/2016	TSTM Wind	52 kts.	0/0	\$20,000
Waynesboro	1/2/2017	TSTM Wind	52 kts.	0/0	\$0
Waynesboro	11/1/2018	TSTM Wind	61 kts.	0/0	\$5,000
Waynesboro	4/14/2019	TSTM Wind	52 kts.	0/0	\$5,000
Waynesboro	1/11/2020	TSTM Wind	52 kts.	0/0	\$0
Waynesboro	4/12/2020	TSTM Wind	52 kts.	0/0	\$0
Waynesboro	4/13/2022	TSTM Wind	61 kts.	0/0	\$0
Unincorporated Area in Wayne County					
Mulberry	1/29/2001	TSTM Wind	55 kts.	0/0	\$5,000
Matherville	3/2/2001	TSTM Wind	65 kts.	0/0	\$10,000
Eucutta	3/2/2001	TSTM Wind	55 kts.	0/0	\$3,000
Clara	10/13/2001	TSTM Wind	50 kts.	0/0	\$10,000
Hiwannee	11/10/2002	TSTM Wind	55 kts.	0/0	\$20,000
Clara & Hiwannee	4/6/2003	TSTM Wind	50 kts.	0/0	\$10,000
Buckatunna	1/10/2008	TSTM Wind	50 kts.	0/0	\$10,000
Smithtown	3/3/2008	TSTM Wind	74 kts.	0/0	\$0
Hiwannee	4/4/2008	TSTM Wind	50 kts.	0/0	\$10,000
Clara	5/15/2008	TSTM Wind	50 kts.	0/0	\$15,000
Battles	4/4/2011	TSTM Wind	50 kts.	0/0	\$0
Eucutta	4/11/2013	TSTM Wind	52 kts.	0/0	\$10,000
Matherville	6/28/2013	TSTM Wind	52 kts.	0/0	\$3,000
Denham	6/28/2013	TSTM Wind	61 kts.	0/0	\$8,000
Whistler	7/23/2013	TSTM Wind	52 kts.	0/0	\$7,000
Buckatunna	7/23/2013	TSTM Wind	50 kts.	0/0	\$2,000
Winchester	8/5/2013	TSTM Wind	52 kts.	0/0	\$5,000
Whistler	2/20/2014	TSTM Wind	52 kts.	0/0	\$1,000
Woodwards	4/28/2014	TSTM Wind	83 kts.	0/0	\$50,000
Whistler	9/2/2014	TSTM Wind	61 kts.	0/0	\$5,000
Matherville	10/2/2014	TSTM Wind	52 kts.	0/0	\$5,000
Clara	10/13/2014	TSTM Wind	52 kts.	0/0	\$5,000
Clara	10/31/2015	TSTM Wind	52 kts.	0/0	\$10,000
County	2/15/2016	TSTM Wind	52 kts.	0/0	\$43,000
Whistler	2/23/2016	TSTM Wind	52 kts.	0/0	\$3,000
Mulberry	7/9/2016	TSTM Wind	52 kts.	0/0	\$10,000
County	7/10/2016	TSTM Wind	52 kts.	0/0	\$15,000
Eucutta	4/13/2019	TSTM Wind	52 kts.	0/0	\$10,000
County	6/27/2019	TSTM Wind	52 kts.	0/0	\$0
Whistler	9/9/2019	TSTM Wind	52 kts.	0/0	\$0
Smithtown	3/31/2020	TSTM Wind	61 kts.	0/0	\$0
County	4/12/2020	TSTM Wind	52 kts.	0/0	\$5,000
Hiwannee	4/23/2020	TSTM Wind	70 kts.	0/0	\$10,000
Buckatunna	4/10/2021	TSTM Wind	52 kts.	0/0	\$0
County	2/3/2022	TSTM Wind	52 kts.	0/0	\$0
Matherville	4/13/2022	TSTM Wind	61 kts.	0/0	\$0

County	6/10/2022	TSTM Wind	52 kts.	0/1	\$0
Denham	6/23/2022	TSTM Wind	52 kts.	0/0	\$0
Whistler	4/3/2023	TSTM Wind	52 kts.	0/0	\$0
Clara & Eucutta	6/16/2023	TSTM Wind	61 kts.	0/0	\$0
Woodwards	6/25/2023	TSTM Wind	52 kts.	0/0	\$0
Eucutta	5/13/2024	TSTM Wind	52 kts.	0/0	\$0

Source: NCED/NOAA

Hailstorm

According to the National Centers for Environmental Information, 28 recorded hailstorm events have affected Wayne County since 2000. **Table H.17** is a summary of the hail events in Wayne County. **Table H.18** provides detailed information about each event that occurred in the county. In all, hail occurrences resulted in over \$13,000 in property damages. Hail ranged in diameter from 0.75 inches to 1.75 inches. It should be noted that hail is notorious for causing substantial damage to cars, roofs, and other areas of the built environment that may not be reported to the National Centers for Environmental Information. Therefore, it is likely that damages are greater than the reported value.

Lightning

According to the National Centers for Environmental Information, there has been two recorded lightning events in Wayne County since 2000. These events resulted in almost \$50,000 in damages and two reported injuries, as listed in summary **Table H.17**. However, it is likely that more lightning events have in fact impacted the county. Many of the reported events are those that caused damage, and it should be expected that damages are likely much higher for this hazard than what is reported. Detailed information on historical lightning events can be found in **Table H.18**.

TABLE H.17: SUMMARY OF HAIL AND LIGHTNING OCCURRENCES IN WAYNE COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage
Waynesboro	7	0	0	\$0
Unincorporated Area	21	0	2	\$63,000
Wayne County Total:	28	0	2	\$63,000

Source: NCED/NOAA

TABLE F.18: HISTORICAL HAIL AND LIGHTNING OCCURRENCES IN WAYNE COUNTY

Location	Date	Type	Magnitude	Deaths	Injuries	Property Damage
The City of Waynesboro						
Waynesboro	5/2/2000	Hail	1.75 in.	0	0	\$0
Waynesboro	4/11/2005	Hail	0.75 in.	0	0	\$0

Waynesboro	4/22/2005	Hail	0.75 in.	0	0	\$0
Waynesboro	4/26/2005	Hail	0.75 in.	0	0	\$0
Waynesboro	3/22/2015	Hail	1 in.	0	0	\$0
Waynesboro	4/16/2022	Hail	1.75 in.	0	0	\$0
Waynesboro	5/17/2023	Hail	1 in.	0	0	\$0
Waynesboro	6/17/2023	Hail	1.75 in.	0	0	\$0
Unincorporated Area in Wayne County						
Eucutta	4/1/2000	Hail	1.75 in.	0	0	\$0
Hiwannee	4/3/2001	Hail	1.75 in.	0	0	\$0
County	6/11/2001	Lightning	--.	0	2	\$0
Clara	7/6/20002	Hail	0.75 in.	0	0	\$0
Buckatunna	3/13/2003	Hail	0.75 in.	0	0	\$0
Battles	4/25/2003	Hail	0.75in.	0	0	\$0
Mulberry	5/3/2003	Hail	0.88 in.	0	0	\$0
County	8/27/2003	Lightning	--	0	0	\$50,000
Hiwannee	4/7/2004	Hail	0.75 in.	0	0	\$0
Clara	3/22/2005	Hail	0.75 in.	0	0	\$0
Buckatunna	4/11/2005	Hail	0.75 in.	0	0	\$0
Clara	4/22/2005	Hail	1.75 in.	0	0	\$3,000
Clara	4/22/2005	Hail	0.88 in.	0	0	\$0
Boice	5/9/2006	Hail	0.88 in.	0	0	\$0
Matherville	6/20/2008	Hail	0.88 in.	0	0	\$10,000
Clara	4/15/2011	Hail	1.75 in.	0	0	\$0
Buckatunna	5/31/2012	Hail	1 in.	0	0	\$0
Hiwannee	2/20/2014	Hail	1 in.	0	0	\$0
Eucutta	3/27/2017	Hail	1 bin.	0	0	\$0
Whistler	3/4/2020	Hail	1 in.	0	0	\$0
Mulberry	4/16/2022	Hail	1.50 in.	0	0	\$0

Source: NCED/NOAA

PROBABILITY OF FUTURE OCCURRENCES

Thunderstorm / High Wind

Given the high number of previous events, it is certain that wind events, including straight-line wind and thunderstorm wind, will occur in the future. This results in a probability level of highly likely (100 percent annual probability) for future wind events for the entire county.

Hailstorm

Based on historical occurrence information, it is assumed that the probability of future hail occurrences is likely (10 – 100 percent annual probability). Since hail is an atmospheric hazard (coinciding with thunderstorms), it is assumed that Wayne County has equal exposure to this hazard. It can be expected that future hail events will continue to cause minor damage to property and vehicles throughout the county.

Lightning

Although there was not a high number of historical lightning events reported in Wayne County via NCDC data, it is a regular occurrence accompanied by thunderstorms. In fact, lightning events will assuredly happen on an annual basis, though not all events will cause damage. According to Vaisala's U.S. National Lightning Detection Network (NLDN®), Wayne County is located in an area of the country that experienced an average of 6 to 8 lightning flashes per square kilometer per year. Therefore, the probability of future events is highly likely (100 percent annual probability). It can be expected that future lightning events will continue to threaten life and cause minor property damages throughout the county.

Meteorologists predict that thunderstorms will continue to increase in frequency, magnitude, and intensity as climate change continues to effect weather. These increases could greatly impact the county with more crop and property damage and life safety. If these storms intensify it could also affect the economy of the county.

H.2.12 Tornado

LOCATION AND SPATIAL EXTENT

Tornadoes occur throughout the state of Mississippi, and thus in Wayne County. Tornadoes typically impact a relatively small area, but damage may be extensive. Event locations are completely random, and it is not possible to predict specific areas that are more susceptible to tornado strikes over time. Therefore, it is assumed that Wayne County is uniformly exposed to this hazard.

HISTORICAL OCCURRENCES

Tornadoes resulted in eight disaster declarations in Wayne County in 1973, 2003, 2009, 2013, 2014, 2018, 2020, and 2023. According to the National Centers for Environmental Information, there have been a total of 19 recorded tornado events in Wayne County since 2000 (**Table H.19**), resulting in \$1.705M in property damages. The magnitude of these tornadoes ranges from F0 to EF2 in intensity, although an EF5 event is possible. Detailed information on historic tornado events can be found in **Table H.20**.

TABLE H.19: SUMMARY OF TORNADO OCCURRENCES IN WAYNE COUNTY

Location	Number of Occurrences	Deaths	Injuries	Property Damage
<i>Waynesboro</i>	3	0	0	\$30,000
<i>Unincorporated Area</i>	13	0	0	\$1,560,00
County Total:	16	0	0	\$1,590,000

TABLE H.20: HISTORICAL TORNADO IMPACTS IN WAYNE COUNTY

Location	Date	Magnitude	Deaths/ Injuries	Property Damage
The City of Waynesboro				
<i>Waynesboro</i>	5/17/2003	F0	0/0	\$5,000
<i>Waynesboro</i>	10/7/2017	EF0	0/0	\$25,000
<i>Waynesboro</i>	3/30/2022	EF1	0/0	\$0
Unincorporated Area in Wayne County				
<i>Whistler</i>	11/15/2006	F1	0/0	\$250,000
<i>Whistler</i>	4/15/2011	EF0	0/0	\$0
<i>Robinson JCT</i>	1/13/2013	EF1	0/0	\$100,000
<i>Clara & Denham</i>	2/10/2013	EF1	0/0	\$150,000
<i>Eucutta</i>	4/28/2014	EF1	0/0	\$50,000
<i>Hiwannee</i>	4/28/2014	EF2	0/0	\$1,000,000
<i>Merrill</i>	12/16/2019	EF1	0/0	\$10,000
<i>Eucutta</i>	4/23/2020	EF1	0/0	\$0
<i>Whistler</i>	3/17/2021	EF2	0/0	\$0
<i>Denham</i>	3/17/2021	EF1	0/0	\$0
<i>Denham</i>	3/30/2022	EF1	0/0	\$0
<i>Whistler</i>	4/5/2022	EF2	0/0	\$0
<i>Denham</i>	4/5/2022	EF1	0/0	\$0

Source: NCED/NOAA

Anecdotes are available from NCEI for the major storms that have impacted that area as found below:

November 15, 2006—A tornado entered the southwest part of Wayne County from Jones County just south of US Highway 84. The tornado moved northeast causing mostly tree damage and crossed Highway 84. The tornado then crossed Harry Pippen Drive where it pushed a large tree on to a house. The tornado continued northeast over private property where it strengthened to an F1. Here it caused considerable tree damage and damaged a barn near Pleasant Grove Altair Road. The tornado crossed the road, and this is where most of the damage occurred. A mobile home that was tied down was flipped and demolished. A large shed was flattened. Other homes in this area lost shingles and trees. The tornado lifted near Pleasant Grove Altair Road and Jack Fleming Road intersection.

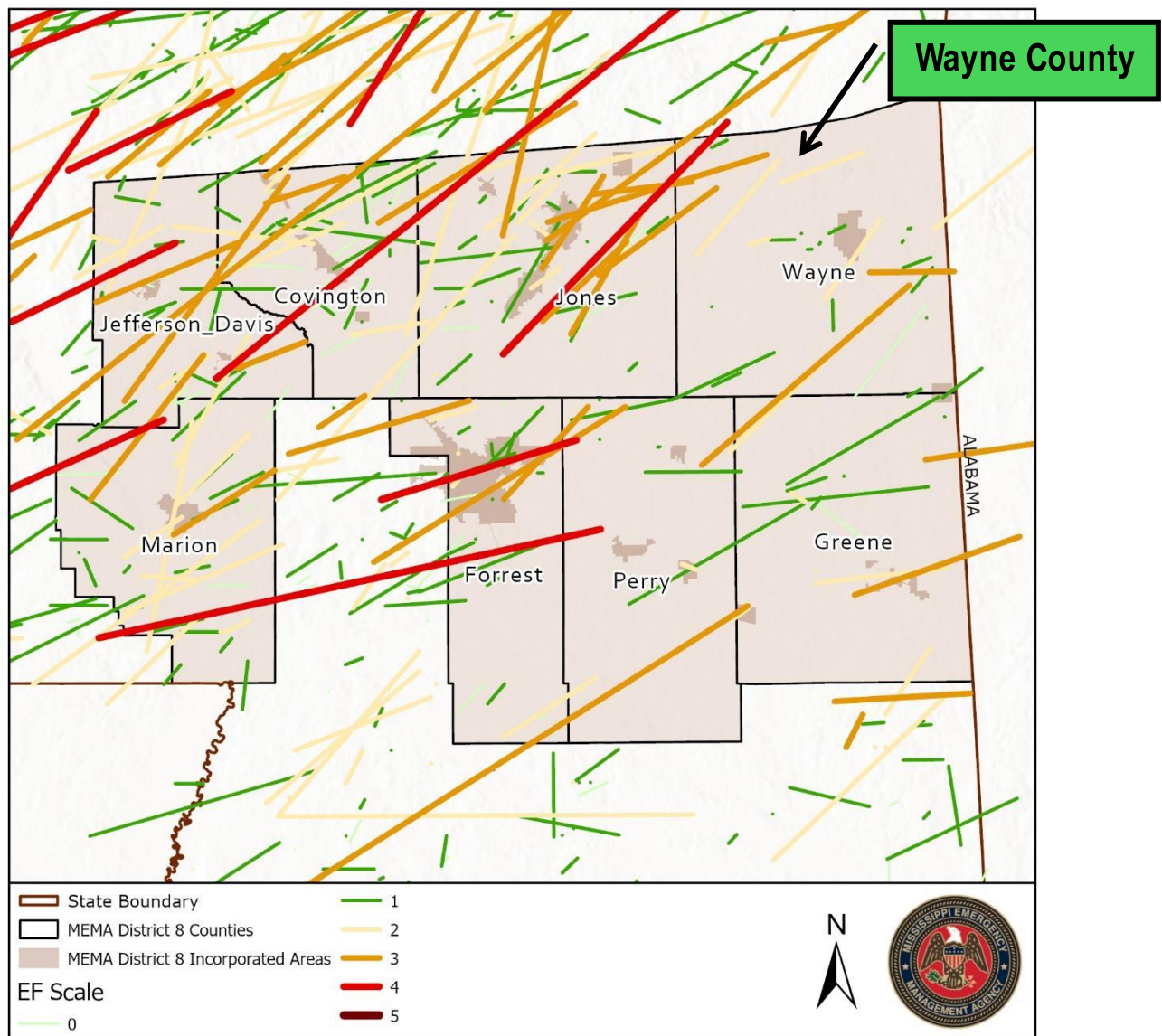
January 13, 2013—An isolated severe thunderstorm developed ahead of a strong cold front and tracked from northern Perry County and extreme northwest Greene County into southeastern Wayne County. The storm intensified as it approached Highway 45 near Buckatunna and produced a short, tracked tornado just east of Highway 45 and north of Buckatunna. The initial tornado touchdown was located near Odell Chambers Drive where it produced sporadic tree damage. The tornado continued northeastward...Intensifying to EF-1 intensity and widening to 200 yards as it moved across Oscar Jordan Road. In this area...significant tree damage was observed. Numerous pine trees were snapped, and several large oak trees were uprooted. The tornado continued northeast...Producing structural damage near the intersection of John Pettis Drive and Jordan Sumrall Road. One modular home and one mobile home suffered the loss of their roofs. Additional tree damage was noted with pine trees snapped and oak trees uprooted. The damage was consistent with EF -1 intensity. The tornado continued northeast to Denham Progress Road where one large chicken house was destroyed and another experienced major damage. The tornado weakened and lifted just to the east of Denham Progress Road in a wooded area.

February 10, 2013— The tornado touched down in the southwest portions of Wayne County just south of Strickland Road and just west of Salem Road along Byrd Creek in the Desoto National Forest. The tornado quickly intensified to EF -1 strength as it crossed Shows Road where it damaged the roofs of 2 homes and snapped or uprooted numerous large trees. The tornado overturned camping trailers at a hunting camp off of Fire Road 726 and continued east northeast. The tornado weakened to EF-0 strength as it crossed a large section of the Desoto National Forest and Highway 63 approximately 4 miles southwest of Clara where it produced minor damage to the roofs of a few homes...destroyed a few small outbuildings...and topped out trees in an 80-yard-wide path. The tornado then quickly re-intensified as it moved across Hudson Town Road and Roy Shoemaker Drive where it widened to 200 yards...snapping numerous large tree pine trees...damaging the roof of one brick home and causing damage to a barn. The tornado crossed Buckatunna Clara Road where it snapped numerous pine trees and caused major damage to 3 homes when pine trees fell on them. The tornado weakened and dissipated near Hutcherson Hutto Road. The storm that produced this tornado also had severe downburst winds on the rear flank downdraft. The rear flank downdraft with this storm uprooted or snapped a wide swath of trees south of the main tornado track.

April 28, 2014—A strong storm system brought record flooding along with severe thunderstorms that produced damaging winds and tornadoes to the region. The NWS Survey team found evidence of a strong tornado that tracked across north central and northeast Wayne County. The tornado tracked from the west to the east at around 50 mph. A single-family home located on Waller Ridge Road and several single-family homes and mobile homes on Spinkes Hayes Road were destroyed. Minor to moderate damage occurred to numerous other residences from Spinkes Hayes Road to Matherville Diamond Road.

February 23, 2016—The storm survey team found a third tornado touchdown in a heavily wooded area near the Greene/Wayne county line. Numerous large diameter (greater than 2 feet) hardwood and pine trees were either snapped near the base of the trunk or uprooted. Significant damage occurred to a log cabin built in 1909 just inside the Wayne County line...with windowpanes blown out and large portions of the roof destroyed. A detached outbuilding...built roughly at the same time...was destroyed by a large tree falling on its north side. The tornado continued affecting mostly wooded areas before lifting just to the northeast of Woulard Bend River Road.

FIGURE H.8: TORNADO PATHS IN WAYNE COUNTY



PROBABILITY OF FUTURE OCCURRENCES

According to historical information, tornado events pose a significant threat to Wayne County. The probability of future tornado occurrences affecting Wayne County is likely (10 – 100 percent annual probability).

It is predicted that tornadoes and the type of storms that create tornadoes will increase in intensity, frequency, and magnitude as the temperature rises with climate change. More frequent strong tornadoes could have a large economic impact on each community in the county. It could also increase injuries and/death counts if the tornadoes increase in magnitude.

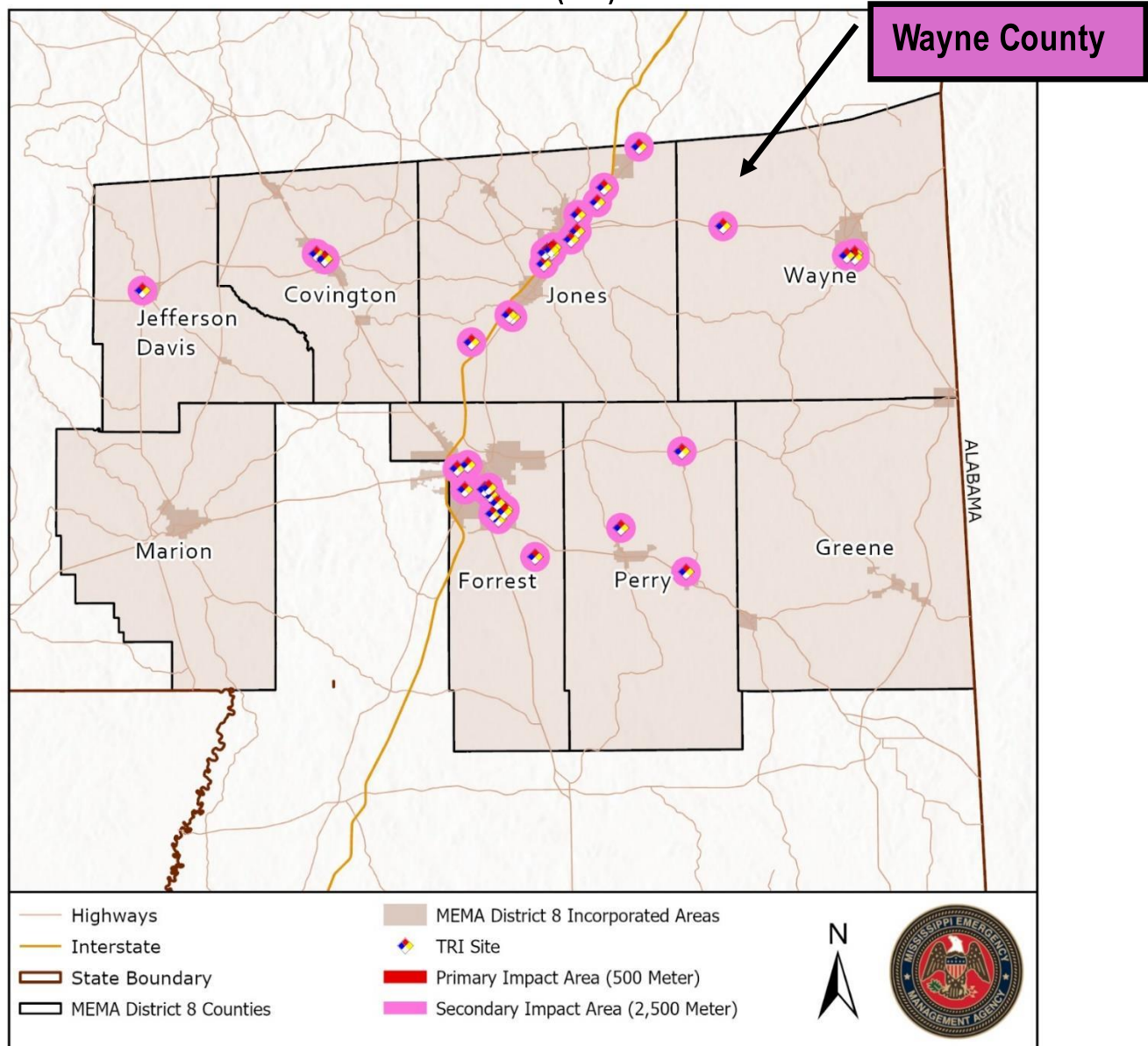
H.2.13 Hazardous Materials Incidents

LOCATION AND SPATIAL EXTENT

Hazardous Materials

Wayne County has four TRI sites. These sites are shown in **Figure H.7**.

FIGURE H.7: TOXIC RELEASE INVENTORY (TRI) SITES IN WAYNE COUNTY

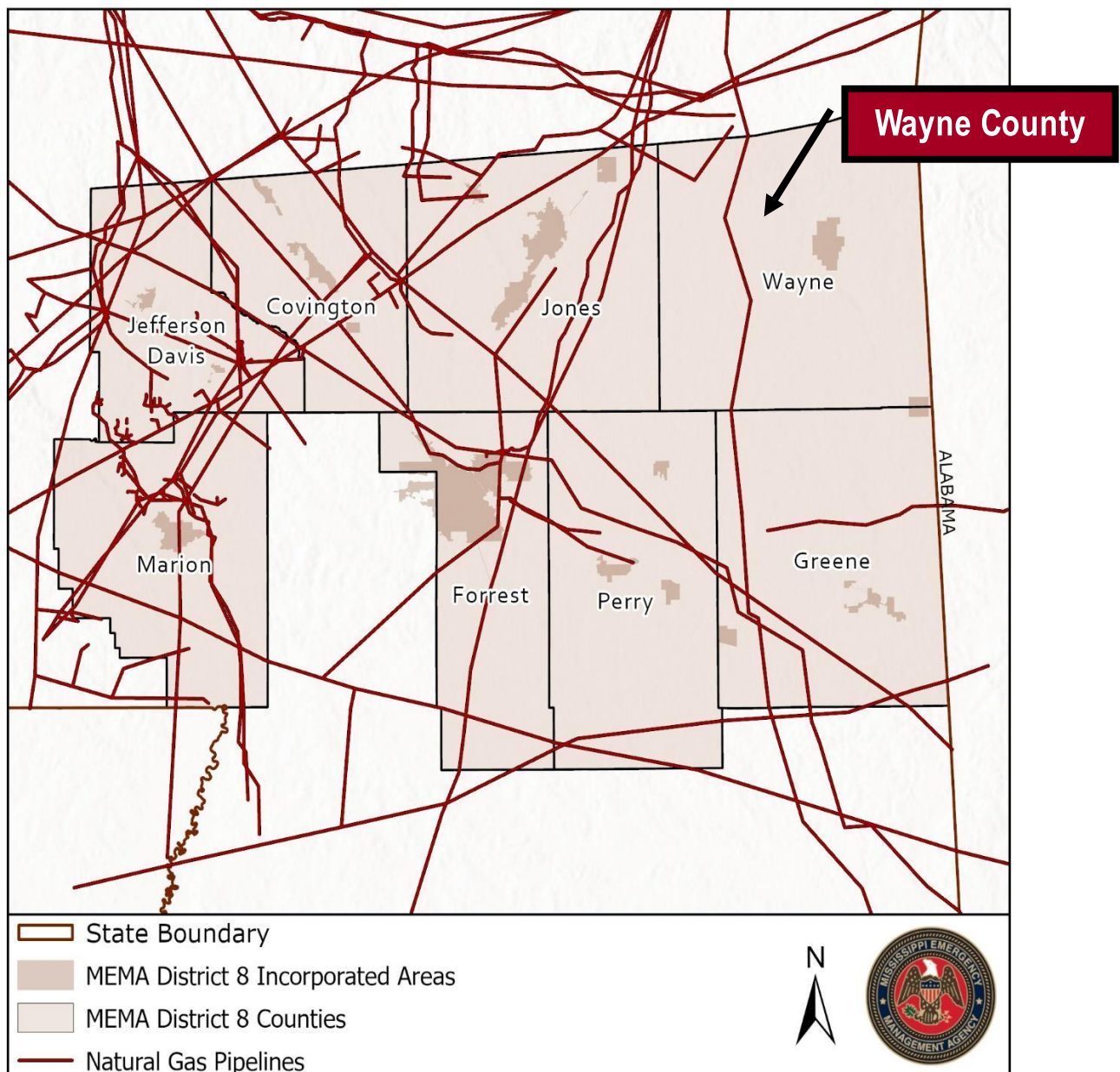


In addition to “fixed” hazardous materials locations, hazardous materials may also impact the county via roadways and rail. Many roads in the county are narrow, making hazardous material transport in the area especially treacherous. All roads that permit hazardous material transport are considered potentially at risk to an incident.

Pipelines

There are two distinct types of pipelines that are used in the transport of potentially hazardous materials, gas lines and hazardous liquid lines. **Figure H.8** shows the trunk lines for each of these material types but does not show the gathering or distribution pipelines. Gaslines are in blue and hazardous liquid lines are in red. This data has not changed since the last plan update.

FIGURE H.8: PIPELINES IN WAYNE COUNTY



Meth Labs

One of the greatest concerns about meth labs is that they are clandestine in nature. Additionally, once a meth lab has been identified, police authorities generally attempt to eliminate the site as quickly as possible. Therefore, it is nearly impossible to identify specific locations for meth labs and instead, the entire planning area is considered to be at risk to this hazard.

HISTORICAL OCCURRENCES

Hazardous Materials

There has been a total of six recorded HAZMAT incidents in Wayne County since 1979, resulting in \$4,450 in property damages. In addition, one injury was reported. **Table H.21** presents detailed information on historic HAZMAT incidents in Wayne County as reported by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA).

TABLE H.21: HAZMAT INCIDENTS IN WAYNE COUNTY

Location	Date	Report Number	Mode	Serious Incident	Deaths/Injuries	Damages	Quantity Released
The City of Waynesboro							
Waynesboro	11/18/1979	I-1979120895	Highway	No	0/0	\$0	42 LGA
Waynesboro	10/2/1998	I-1998100617	Highway	No	0/0	\$400	5 LGA
Waynesboro	3/16/2000	I-2000031243	Highway	No	0/0	\$0	0
Waynesboro	9/14/2012	I-2012100243	Highway	No	0/0	\$0	10 LGA
Waynesboro	9/14/2012	E-2012110328	Highway	Yes	0/1	\$0	15 LGA
Unincorporated Area in Wayne County							
Eucutta	2/15/2003	I-2003031009	Highway	No	0/0	\$4,050	20 LGA

Source: PHMSA

Pipelines

Between 2000 and 2024, there have been no pipeline incidents in Wayne County.

Meth Labs

Meth lab incidents have occurred at various times throughout Wayne County. Although there is not an extensive documented record of these events, they have occurred in the past and are generally confined to single sites, often in residential areas.

PROBABILITY OF FUTURE OCCURRENCES

Hazardous Materials

Given the location of four toxic release inventory sites in Wayne County and several roadway and rail incidents, it is possible that a hazardous material incident may occur in the county (between one percent and ten percent annual probability). County and town officials are mindful of this possibility and take precautions to prevent such an event from occurring. Furthermore, there are detailed plans in place to respond to an occurrence.

Although there are just four TRI sites and a limited record of previous events in the county, hazardous materials incidents will continue to be a threat. The county may also be impacted by neighboring counties which also face risk due to TRI sites and narrow roadways.

Pipelines

Although there have been no pipeline incidents, there are 109 miles of gas and hazardous liquid lines in Wayne County. Therefore, it is anticipated that there will be future pipeline incidents in Wayne County.

Meth Labs

Meth lab incidents will likely continue to occur throughout Wayne County and are considered possible. Although it is difficult to predict where exactly these incidents would occur, the probability that they will is possible.

H.2.14 Cyber Attack

A cyber-attack is a malicious, intentional attempt to breach the information technology (IT) infrastructure of an individual or organization. The State of Mississippi defines a cyberterrorism incident as any adverse premeditated, politically, financially or maliciously motivated attack against informational systems. A cyberterrorism event can impact one or more of Wayne County's and its, corresponding departments' and divisions' information assets by the following ways, which includes, but are not limited to, the following:

- Unauthorized use
- Denial of Service
- Malicious code
- Network system failures
- Application system failures
- Unauthorized disclosure or loss of information
- Information security breach
- Structured Query Language (SQL) Injection

LOCATION AND HAZARD EXTENT

The cyberterrorism hazard is not geographically based. Attacks can originate from any computer to affect any other computer in the world. If a system is connected to the Internet or operating on a wireless frequency, it is susceptible to exploitation. Targets of cyberterrorism can be individual computers, networks, organizations, business sectors, or governments. Financial institutions and retailers are often targeted to extract personal and financial data that can be used to steal money from individuals and banks.

HISTORICAL OCCURRENCES

There have been no known historical occurrences to have occurred in in Wayne County to date.

PROBABILITY OF FUTURE OCCURRENCES

As is the case for any governmental organization, there will always be the potential for impact for Wayne County. As such, the county will continue to be compelled to respond to cyberterrorisms in the future. The nature of these attacks is projected to evolve in sophistication over time. Wayne County will take a proactive position in its cyber security efforts and is expected to remain vigilant in its efforts to prevent attacks from occurring and/or disrupting business operations.

The reality remains that many computers and networks in organizations of all sizes and industries around the United States will continue to suffer intrusion attempts on a daily basis from viruses and malware that are passed through web sites and emails. Again, the potential for harm via this hazard is always present.

H.2.15 Pandemic

LOCATION AND SPATIAL EXTENT

Pandemics are global in nature. However, they may start anywhere. In 2019 a Global Pandemic hit the United States, and for the first time, a Disaster Declaration was declared for the COVID Pandemic.

All populations should be considered at risk to pandemic. Buildings and infrastructure are not directly impacted by the virus but could be indirectly impacted if people are not able to operate and maintain them due to illness. Many buildings may be shutdown, at least temporarily, as a result. Employers may initiate work from home procedures for non-essential workers in order to help stop infection. Commerce activities, and thus the economy, may suffer greatly during this time.

HISTORICAL OCCURRENCES

Several pandemics have been reported throughout history. The first known pandemic dates back to 430 B.C. with the Plague of Athens. It reportedly killed a quarter of the population over four years due to typhoid fever. In 165-180 A.D., the Antonine Plague killed nearly 5 million people. Next, the Plague of Justinian (the first bubonic plague pandemic) occurred from 541 to 566. It killed 10,000 people a day at its peak and resulted in a 50 percent drop in Europe's population.

Since the 1500s, influenza pandemics have occurred about three times every century or roughly every 10-50 years. The Black Death devastated European populations in the 14th century. Nearly a third of the population (20-30 million) was killed over six years. From 1817 to present, seven Cholera Pandemics have impacted to the world and killed millions. Perhaps most severe, was the Third Cholera Pandemic (1852-1959) which started in China. Isolated cases can still be found in the Western U.S. today. There were three major pandemics in the 20th century (1918-1919, 1957-1958, and 1968-1969). The most infamous pandemic flu of the 20th century, however, was that of 1918-1919. Since the 1960s, there has only been one pandemic, the 2009 H1N1 influenza. The pandemics of the 20th and 21st centuries that impacted the United States are detailed below.

1918 Spanish Flu: This was the most devastating flu of the 20th century. This pandemic spread across the world in three waves between 1918 and 1919. It typically impacted areas for around twelve weeks and then would largely disappear. However, it would frequently reemerge several months later. Worldwide, approximately 50 million persons died and over a quarter of the population was infected. Nearly 675,000 people died in the United States. The illness came on suddenly and could cause death within a few hours. The virus impacted those aged 15 to 35 especially hard. The movement of troops during World War I is thought to have facilitated the spread of the virus.

In Mississippi, state officials noted that "epidemics have been reported from a number of places in the State," on October 4th, 1918. By the 18th, twenty-six localities reported 1,934 cases (the real number of cases was likely much higher). West Point, Mississippi was hit especially hard, and quarantine was established. Throughout the state, African Americans were impacted at a greater rate than white populations. This is thought to be partly caused from a shortage of caretakers. It is estimated that over 6,000 people died in Mississippi, though that number may be much higher as death records were not widely recorded.

1957 Asian Flu: It is estimated that the Asian Flu caused 2 million deaths worldwide. Approximately 70,000 deaths were in the U.S. However, the proportion of people impacted was substantially higher than that of the Spanish Flu. This flu was characterized as having much milder effects than the Spanish Flu and greater survivability. Similar to other pandemics, this pandemic has two waves. Elderly and infant populations were more likely to succumb to death. This flu is thought to have originated from a genetic mutation of a bird virus.

1968 Hong Kong Flu: The Hong Kong Flu is thought to have caused one million deaths worldwide. It was milder than both the Asian and Spanish influenza viruses. It was similar to the Asian Flu, which may have provided some immunity to the virus. It had the most severe impact on elderly populations.

2009 H1N1 Influenza: This flu was derived from human, swine, and avian virus strains. It was initially reported in Mexico in April 2009. On April 26, the U.S. government declared H1N1 a public health emergency. A vaccine was developed and over 80 million were vaccinated which helped minimize the impacts. The virus had mild impacts on most of the population but did cause death (usually from viral pneumonia) in high-risk populations such as pregnant women, obese persons, indigenous people, and those with chronic respiratory, cardiac, neurological, or immunity conditions.

Worldwide, it is estimated that 43 million to 89 million people contracted H1N1 between April 2009 and April 2010, and between 8,870 and 18,300 H1N1 cases resulted in death.

COVID-19 (coronavirus disease 2019): Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Wayne County had 7,031 cases of Covid and 92 deaths.

COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. COVID-19 may attack more than your lungs and respiratory system. Other parts of your body may also be affected by the disease. Most people with COVID-19 have mild symptoms, but some people become severely ill. Some people are more likely than others to get very sick if they get COVID-19. This includes people who are older, are immunocompromised, have certain disabilities, or have underlying health conditions.

In addition to the pandemics above, there have been several cases of pandemic threats, some of which reached epidemic levels. They were contained before spreading globally. Examples include Smallpox, Polio, Tuberculosis, Malaria, AIDS, SARS and Yellow Fever. Advances in medicine and technology have been instrumental in containing the spread of viruses in recent history.

PROBABILITY OF FUTURE OCCURRENCES

Based on historical occurrence information, it is assumed that Webster County has a probability level of unlikely (less than 1 percent annual probability) for future pandemics events. While pandemic can have devastating impacts, they are relatively rare.

The Mississippi State Department of Health maintains a state pandemic plan which can be found here: <http://www.msdh.state.ms.us/msdhsite/index.cfm/44,1136,122,154,pdf/SNSPlan.pdf>

H.2.16 Conclusions on Hazard Risk

The hazard profiles presented above were developed using best available data and result in what may be considered principally a qualitative assessment as recommended by FEMA in its “How-to” guidance document titled Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA Publication 386-2). It relies heavily on historical and anecdotal data,

stakeholder input, and professional and experienced judgment regarding observed and/or anticipated hazard impacts. It also carefully considers the findings in other relevant plans, studies, and technical reports.

HAZARD EXTENT

Table H.21 describes the extent of each natural hazard identified for Wayne County. The extent of a hazard is defined as its severity or magnitude, as it relates to the planning area.

TABLE H.21: EXTENT OF WAYNE COUNTY HAZARDS

HAZARD	DESCRIPTION
Tectonic Hazards	
Earthquake	Earthquake extent can be measured by the Richter Scale and the Modified Mercalli Intensity (MMI) scale and the distance of the epicenter from Wayne County. According to data provided by the National Geophysical Data Center, no recorded earthquakes have been located in the county. However, USGS data shows Wayne County lies within an approximate zone of level .04 ground acceleration. This indicates that the county exists within an area of moderate seismic risk.
Mass-Movements	
Landslide	As noted above in the landslide profile, there is no extensive history of landslides in Wayne County and landslide events typically occur in isolated areas. This provides a challenge when trying to determine an accurate extent for the landslide hazard. However, when using USGS landslide susceptibility index, extent can be measured with incidence, which is low throughout most of the county except for a small area of land in the northeast corner where it is moderate. There is also susceptibility throughout the county.
Expansive Soils	As noted above in the expansive soils profile, there is no historical record of significant expansive soil events in Wayne County. Again, this provides a challenge when trying to determine an accurate extent for the expansive soils hazard. However, when using USGS data on soils with clay swelling potential, extent can be measured with swelling potential, which is high in less than 50 percent of the soils Wayne County.
Hydraulic Hazards	
Drought	Drought extent is defined by the U.S. Drought Monitor Classifications which include Abnormally Dry, Moderate Drought, Severe Drought, Extreme Drought, and Exceptional Drought. According to the U.S. Drought Monitor Classifications, the most severe drought condition is Exceptional. Wayne County has received this ranking over the twenty-four-year reporting period.
Floods	Flood extent can be measured by the amount of land and property in the floodplain as well as flood height and velocity. The amount of land in the floodplain accounts for 15 percent of the total land area in Wayne County. Flood depth and velocity are recorded via United States Geological Survey streamgages throughout the region. While a gage does not exist for each participating jurisdiction, there is one at or near many areas. The greatest peak discharge recorded for the county was at the Chickasawhay River near Waynesboro in 1900. Water reached a discharge of 73,000 cubic feet per second and the stream gage height was recorded at 50.30 feet.
Dam Failure	Dam Failure extent is defined using the Mississippi Division of Environmental Quality criteria. There are no dams classified as high hazard in the county.
Meteorological Hazards	
Hurricane and Tropical Storms	Hurricane extent is defined by the Saffir-Simpson Scale which classifies hurricanes into Category 1 through Category 5. The greatest classification of hurricane to traverse directly through Wayne County was a Category 3 storm (Hurricane Katrina in 2005) which carried tropical force winds of 135 miles per hour upon arrival in the county.
Thunderstorms/ Hail/ Lightning/ Wind	Thunderstorm extent is defined by the number of thunder events and wind speeds reported. According to a 63-year history from the National Centers for Environmental Information, the strongest recorded wind event in Wayne County was last reported on April 28, 2014, at 83 knots (approximately 96 mph). It should be noted that future events may exceed these historical occurrences. Hail extent can be defined by the size of the hail stone. The largest hail stone reported in Wayne County was 1.75 inches (last reported on July 17, 2023). It should be noted that future events may exceed this. According to the Vaisala's flash density map, Wayne County is located in an area that experiences 6 to 8 lightning flashes per square kilometer per year. It should be noted that future lightning occurrences may exceed these figures.
Winter Storms	The extent of winter storms can be measured by the amount of snowfall received (in inches). Official long-term snow records are not kept for any areas in the MEMA District 8 Region. However, the greatest snowfall reported in Jackson (north of the county) was 11.7 inches in 1904 and in Meridian (northeast of the county) was 14.0 inches in 1963.
Heat Wave	The extent of extreme heat can be measured by the record high temperature recorded. Official long-term temperature records are not kept for any areas in Wayne County. However, the highest recorded temperature in Hattiesburg (southwest of the county) was 109°F in 2023.

Tornado	Tornado hazard extent is measured by tornado occurrences in the US provided by FEMA as well as the Fujita/Enhanced Fujita Scale. The greatest magnitude reported in Wayne County was an EF2 (reported on April 5, 2022).
Biological Hazards	
Pandemic	The extent of a pandemic impacting the county is difficult to estimate. It could result in thousands of deaths and extreme disruption of commerce and everyday life. Covid is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. Over one million people have died from COVID-19 in the United States. Covid hit the United States in 2019 and changed the way people view Pandemics. Marion County had 7,031 cases of COVID and 92 deaths
Other Natural Hazards	
Wildfire	Wildfire data was provided by the Mississippi Forestry Commission and is reported annually by county from 2000-2023. The greatest number of fires to occur in Wayne County in any year was 57 in 2011. The greatest number of acres to burn in the county in a single year occurred in 2008 when 980 acres were burned. Although this data lists the extent that has occurred, larger and more frequent wildfires are possible throughout the county.
Erosion	The extent of erosion can be defined by the measurable rate of erosion that occurs. There are no erosion rate records located in Wayne County.
Climate Change	The extent Climate change will impact Wayne County is hard to estimate. It could cause more intense, frequent, and/or greater magnitude of thunderstorms, tropical storms, winds, tornadoes, heavy rains, flash flooding... If the intensity and magnitude increase it could lead to greater property & crop damage and possible loss of life.
Other Hazards	
Cyber Attack	The extent of cyberterrorism is difficult to estimate. Attacks can originate from any computer to affect any other computer in the world. The resulting damages depends on the demands of the cyberterrorist.
Hazard Materials Incident	According to USDOT PHMSA, the largest hazardous materials incident reported in the county is 42 LGA released on the highway in Waynesboro. It should be noted that larger events are possible. A pipeline incident could have a potentially large impact in terms of extent. Based on recent history, the largest spill in the last 10 years in Mississippi caused over 10,000 barrels of hazardous liquid to be spilled. Because of the generally small-scale nature of most meth labs, the extent of a fire or explosion that was caused by a meth lab incident would likely not be larger than a few acres.

PRIORITY RISK INDEX RESULTS

In order to draw some meaningful planning conclusions on hazard risk for Wayne County, the results of the hazard profiling process were used to generate countywide hazard classifications according to a “*Priority Risk Index*” (PRI). More information on the PRI and how it was calculated can be found in *Section 5.16.2*.

Table H.22 summarizes the degree of risk assigned to each category for all initially identified hazards based on the application of the PRI. Assigned risk levels were based on the detailed hazard profiles developed for this section, as well as input from the Regional Hazard Mitigation Council. The results were then used in calculating PRI values and making final determinations for the risk assessment.

TABLE H.22: SUMMARY OF PRI RESULTS FOR WAYNE COUNTY

HAZARD	Category/Degree of Risk				
	Probability	Impact	Spatial Extent	Warning Time	PRI Score

Tectonic Hazards						
Earthquake	Unlikely	Minor	Moderate	Less than 6 hours	Less than 6 Hours	1.7
Mass-Movement Hazards						
Landslide	Unlikely	Minor	Small	Less than 6 hours	Less than 6 hours	1.5
Expansive Soil	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Hydrologic Hazards						
Drought	Highly Likely	Minor	Large	More than 24 hours	More than 1 week	2.8
Floods	Likely	Limited	Moderate	6 to 12 hours	Less than 24 hours	2.4
Dam Failure	Unlikely	Critical	Moderate	More than 24 hours	Less than 24 hours	2.0
Meteorological Hazards						
Hurricane/ Tropical Storms	Likely	Catastrophic	Large	More than 24 hours	Less than 24 hours	3.2
Thunderstorm/ High Wind	Highly Likely	Limited	Moderate	Less than 6 hours	Less than 6 hours	2.9
Hailstorm	Likely	Minor	Small	Less than 6 hours	Less than 6 hours	2.1
Lightning	Highly Likely	Limited	Negligible	Less than 6 hours	Less than 6 hours	2.5
Winter Storms	Likely	Limited	Moderate	More than 24 hours	Less than 24 hours	2.3
Temperature Extremes/ Heat Waves	Highly Likely	Likely	Small	More than 24 hours	More than 1 week	2.8
Tornado	Likely	Critical	Small	Less than 6 hours	Less than 6 hours	2.7
Biological Hazards						
Pandemic	Likely	Limited—Major	Small—Large	More than 24 hours	More than a week	2.8
Other Natural Hazards						
Wildfire	Likely	Minor	Small	Less than 6 hours	Less than one week	2.3
Erosion	Possible	Minor	Small	More than 24 hours	More than 1 week	1.8
Climate Change	Likely	Critical	Large	More than 1 week	More than 1 week	2.6
Other Hazards						
Cyber Attack	Possible	Limited	Small	Less than 6 hours	Less than 24 Hours	1.9
Hazardous Materials Incident	Unlikely	Limited	Small	Less than 6 hours	Less than 24 hours	1.9
Meth Lab Incident	Possible	Minor	Small	Less than 6 hours	Less than 6 hours	1.8
Pipeline Incident	Possible	Limited	Small	Less than 6 hours	Less than 6 hours	2.2

H.2.17 Final Determinations on Hazard Risk

The conclusions drawn from the hazard profiling process for Wayne County, including the PRI results and input from the Regional Hazard Mitigation Council, resulted in the classification of risk for each identified hazard according to three categories: **High Risk**, **Moderate Risk**, and **Low Risk** (Table H.23). For purposes of these classifications, risk is expressed in relative

terms according to the estimated impact that a hazard will have on human life and property throughout all of Wayne County. A more quantitative analysis to estimate potential dollar losses for each hazard has been performed separately and is described in *Section 6: Vulnerability Assessment* and below in *Section F.3*. It should be noted that although some hazards are classified below as posing low risk, their occurrence of varying or unprecedented magnitudes is still possible in some cases and their assigned classification will continue to be evaluated during future plan updates.

TABLE H.23: CONCLUSIONS ON HAZARD RISK FOR WAYNE COUNTY

High Risk	<i>Drought/Heat Wave</i> <i>Hurricane and Tropical Storm</i> <i>Thunderstorm/ High Wind</i> <i>Tornado</i> <i>Flood</i> <i>Lightning</i> <i>Pandemic</i>
Moderate Risk	<i>Climate Change</i> <i>Hail</i> <i>Pipeline Incident</i> <i>Hazardous Materials Incident</i> <i>Wildfire</i> <i>Dam Failure</i> <i>Winter Storm and Freeze</i>
Low Risk	<i>Expansive Soil</i> <i>Landslide</i> <i>Meth Lab Incident</i> <i>Pandemic</i> <i>Erosion</i> <i>Cyber Attack</i>

H.3 WAYNE COUNTY VULNERABILITY ASSESSMENT

This subsection identifies and quantifies the vulnerability of Wayne County to the significant hazards previously identified. This includes identifying and characterizing an inventory of assets in the county and assessing the potential impact and expected amounts of damage caused to these assets by each identified hazard event. More information on the methodology and data sources used to conduct this assessment can be found in *Section 6: Vulnerability Assessment*.

H.3.1 Asset Inventory

Table H.24 lists the number of parcels and the total assessed value of improvements for Wayne County and its participating jurisdictions (study area of vulnerability assessment).

TABLE H.24: IMPROVED PROPERTY IN WAYNE COUNTY

LOCATION	Number of Improved Properties	Total Assessed Value of Improvements
Wayne County	100,269	\$1,501,381,000

Table H.25 lists the fire stations, police stations, emergency operations centers (EOCs), medical care facilities, and schools and other critical facilities located in Wayne County. HAZUS was used to obtain the critical facilities for the county and this data was updated to reflect recent changes. In addition, **Figure H.9** shows the locations of essential facilities in Wayne County. **Table H.26** shows a complete list of the critical facilities by name, as well as the hazards that affect each facility. As noted previously, this list is not all-inclusive and only includes information provided by the county.

TABLE H.25: CRITICAL FACILITY INVENTORY IN WAYNE COUNTY

Location	Fire Station	Police Station	Medical Care Facility	EOC	Schools
<i>Waynesboro</i>	1	1	1	0	6
<i>Unincorporated Area</i>	1	1	0	1	3
Wayne County Total:	2	2	1	1	9

FIGURE H.9: CRITICAL FACILITY LOCATIONS IN WAYNE COUNTY

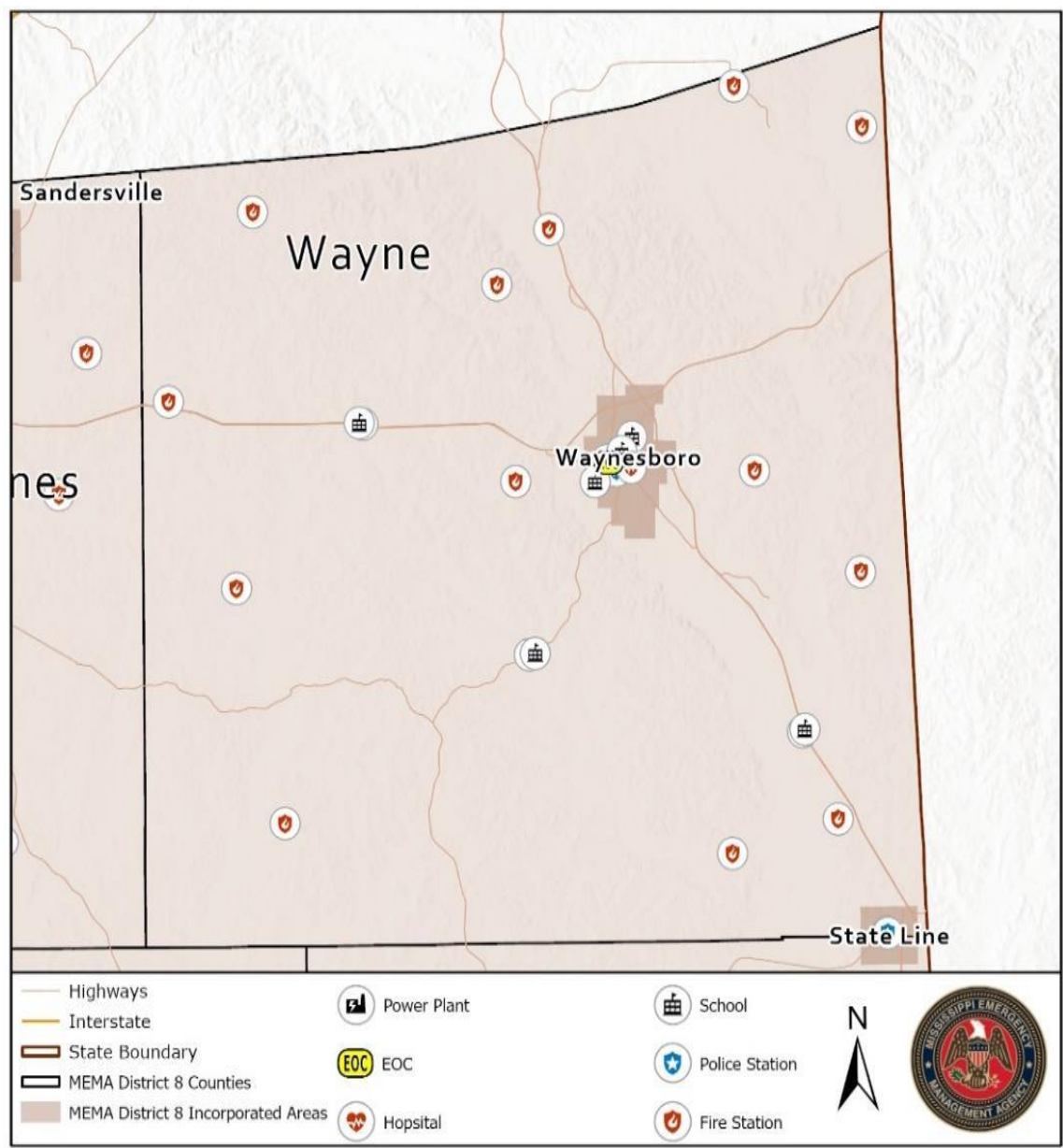


Table H.26 shows the critical facilities vulnerable to additional hazards analyzed in this section. The table lists those assets that are determined to be exposed to each of the identified hazards (marked with an “X”).

TABLE H.26: AT-RISK CRITICAL FACILITIES IN WAYNE COUNTY

		Other			Atmospheric					Geologic		Hydrologic		
Facility Name	Facility Type	WHP Hazard	Fixed HAZMAT 500-2500M Roads & Rails	Mobile HAZMAT 500-2500M Roads & Rails	Drought	Thunder-storm, Lightning, & Hail	Hurricane /Tropical Storm	Tornado	Winter Storm & Freeze	Earth-quake	Land-slide	Dam & Levee Failure	100-Year Flood	500-Year Flood
Wayne County Critical Facilities														
Buckatunna Elem. School	School	HIGH		X	X	X	X		X	X				
Beat Four Elem. School	School	HIGH		X	X	X	X		X	X				
Clara Elem. School	School	Very Low			X	X	X		X	X				
Wayne Academy	School	Low		X	X	X	X		X	X				
Wayne CO VOC Complex	School	Non-burnable	X	X	X	X	X	X	X	X				
Wayne CO Alternative School	School	Non-burnable	X	X	X	X	X	X	X	X				
Wayne County Civil Defense	Emer. Facility	Non-burnable	X	X	X	X	X	X	X	X				
Wayne County High School	School	Low		X	X	X	X	X	X	X				
Wayne County Sheriff	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Wayne County VFD	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				
Wayne General Hospital	Care Facility	Non-burnable	X	X	X	X	X		X	X				
Waynesboro Elem. School	School	Non-burnable		X	X	X	X	X	X	X				
Waynesboro Fire Dept.	Fire Station	Non-burnable	X	X	X	X	X	X	X	X				
Waynesboro Middle School	School	Low	X	X	X	X	X		X	X				
Waynesboro Police Clerk	Police Station	Non-burnable	X	X	X	X	X	X	X	X				
Waynesboro Police Dept	Police Station	Non-burnable	X	X	X	X	X	X	X	X				

H.3.2 Social Vulnerability

In addition to identifying those assets potentially at risk to identified hazards, it is important to identify and assess those particular segments of the resident population in Wayne County that are potentially at risk to these hazards.

Table H.27 lists the population by jurisdiction according to U.S. Census 2020 population estimates. These counts are presented at the county and municipal levels. The total population in Wayne County according to Census data is 19,779 persons. If the decline in population continues to decline it could lead to a decline in the population vulnerability. Additional population estimates are presented above in *Section H.1*.

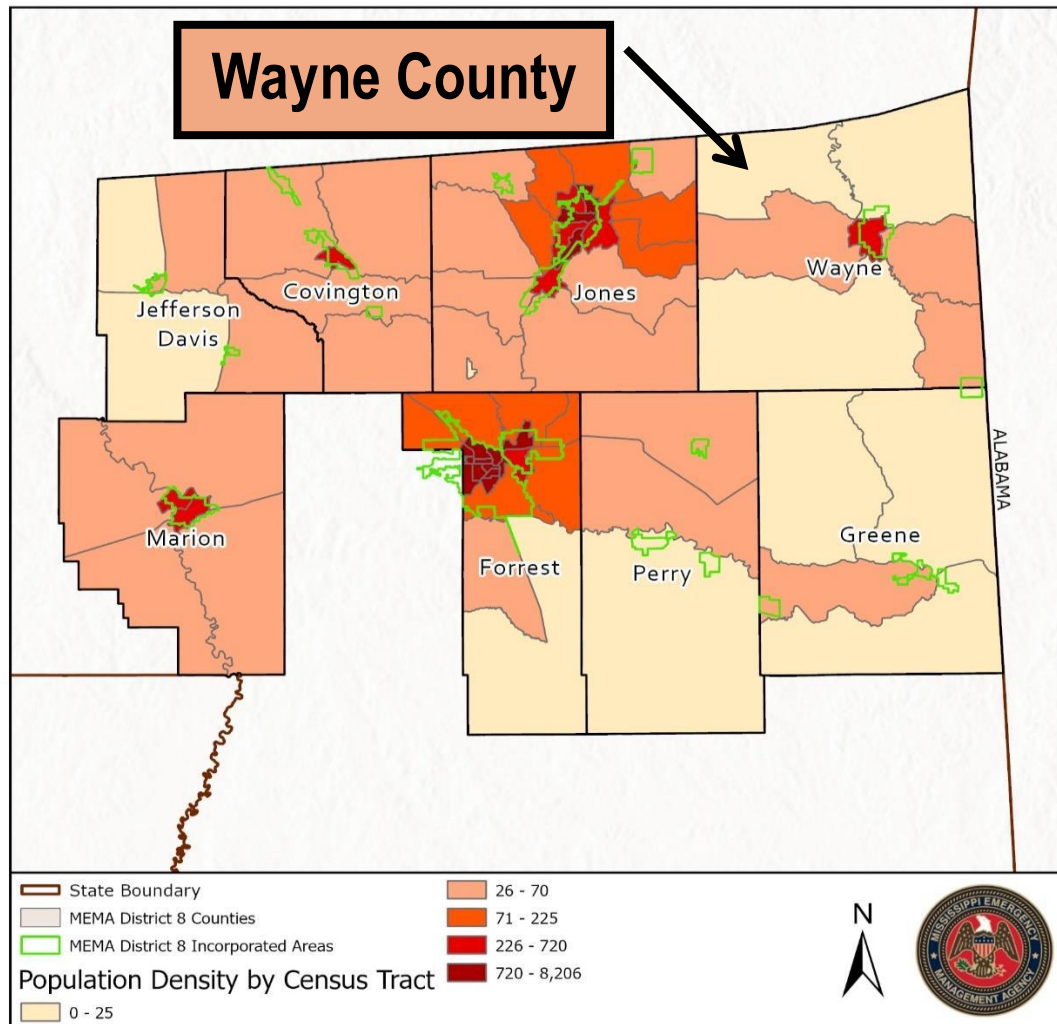
TABLE H.27: TOTAL POPULATION IN WAYNE COUNTY

Jurisdiction	2010 Census	2020 Census
Wayne County	20,747	19,779
Waynesboro	5,043	4,567
Unincorporated Area	15,139	14,760

Source: US Census Bureau

In addition, **Figure H.10** illustrates the population density by census tract as it was reported by the U.S. Census Bureau in 2020.

FIGURE H.10: POPULATION DENSITY IN WAYNE COUNTY



H.3.3 Vulnerability Assessment Results

As noted in *Section 6: Vulnerability Assessment*, only hazards with a specific geographic boundary, available modeling tool, or sufficient historical data allow for further analysis. Those results, specific to Wayne County, are presented here. All other hazards are assumed to impact the entire planning region (drought, hailstorm, lightning, thunderstorm wind, tornado, and winter storm and freeze) or, due to lack of data, analysis would not lead to credible results (dam and levee failure, erosion, expansive soils, and landslide). The total county exposure, and thus risk, was presented in **Table H.24**.

Since the previous plan, the jurisdictions are not aware of any developments in hazard prone areas that have increased or decreased vulnerability.

The hazards to be further analyzed in this section include: flood, wildfire, earthquake, hurricane and tropical storm winds, and hazardous materials incident.

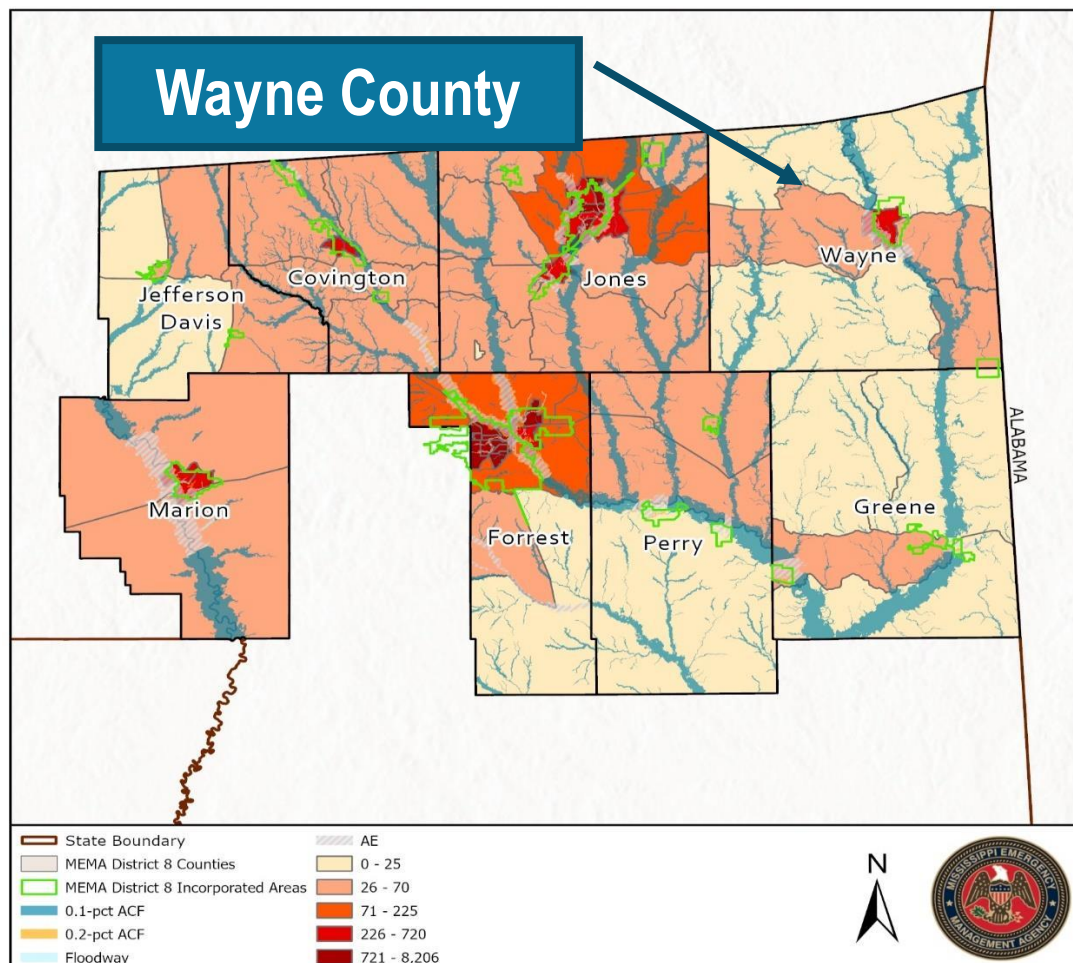
FLOOD

Historical evidence indicates that Wayne County is susceptible to flood events. A total of 21 flood events have been reported by the National Centers for Environmental Information resulting in over \$1.2M in damages.

Social Vulnerability

Since 2010 population was available at the tract level, it was difficult to determine a reliable figure on population at-risk to flood due to tract level population data. **Figure H.11** is presented to gain a better understanding of at-risk population. This information has not changed since the last plan update.

FIGURE H.11: POPULATION DENSITY NEAR FLOODPLAINS



Critical Facilities

The critical facility analysis revealed that there are no critical facilities located in the Wayne County 1.0-percent annual chance floodplain and 0.2-percent annual chance floodplain based on FEMA DFIRM boundaries and GIS analysis. A list of specific critical facilities and their associated risk can be found in **Table H.26**.

In conclusion, a flood has the potential to impact many existing and future buildings and populations in Wayne County, though some areas are at a higher risk than others. All types of structures in a floodplain are at-risk, though elevated structures will have a reduced risk. As noted, the floodplains used in this analysis include the 100-year and 500-year FEMA regulated floodplain boundaries. It is certainly possible that more severe events could occur beyond these boundaries, or urban (flash) flooding could impact additional structures. Such site-specific vulnerability determinations are outside the scope of this assessment but will be considered during future plan updates. Furthermore, areas subject to repetitive flooding should be analyzed for potential mitigation actions.

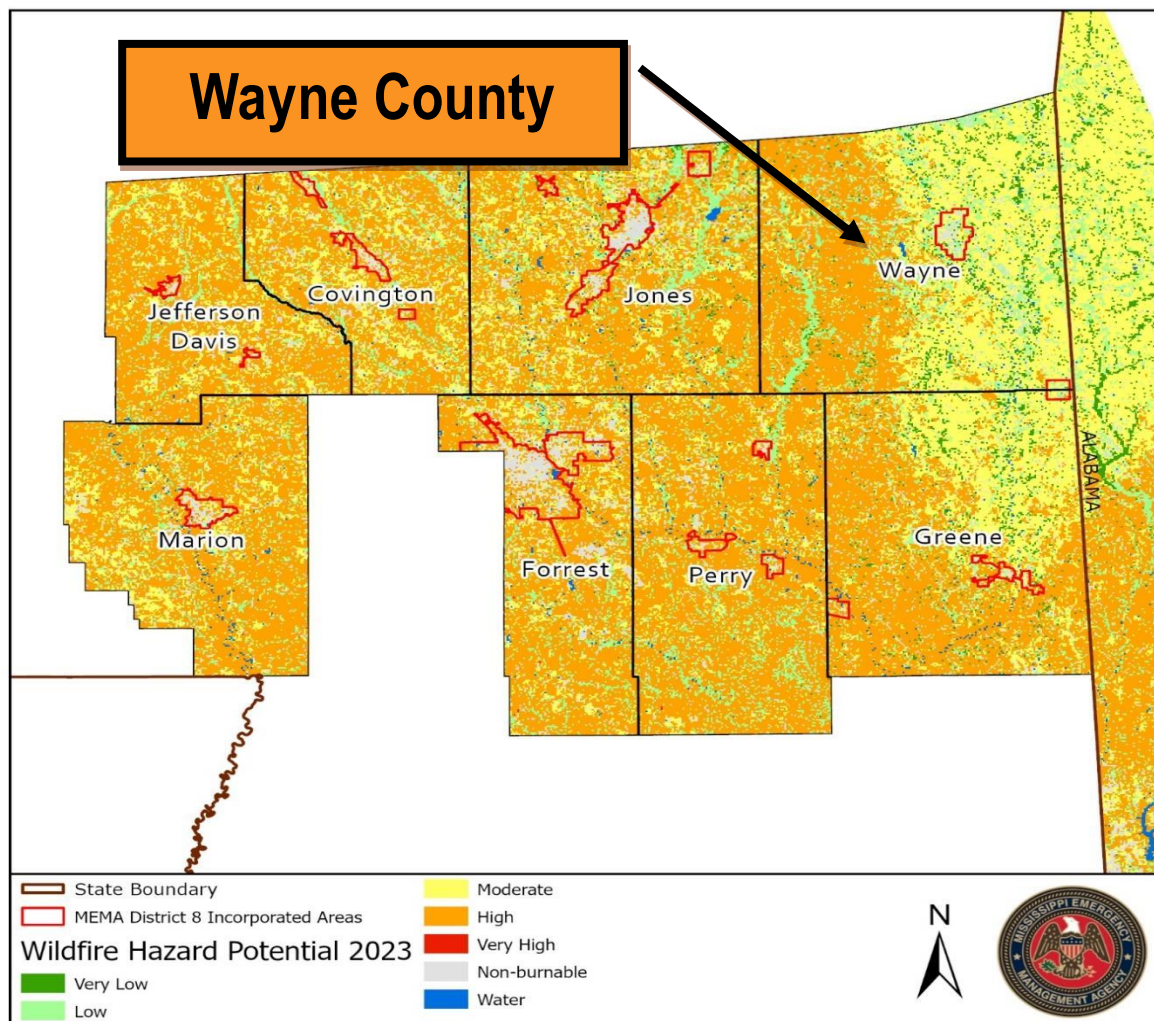
WILDFIRE

Although historical evidence indicates that Wayne County is susceptible to wildfire events, there are few reports of damage.

To estimate exposure to wildfire, the wildfire hazard potential (WHP) data provided via the US Forest Service was utilized. A GIS analysis was performed with the WHP dataset and identified critical facilities throughout *MEMA District 8* in order to show the level of vulnerability.

Figure H.12 shows the wildfire hazard potential for Wayne County. Most of the planning areas falls within the very low to high category.

FIGURE H.12: WILDFIRE RISK AREAS IN WAYNE COUNTY



Social Vulnerability

Although not all areas have equal vulnerability, there is some susceptibility across the entire county. It is assumed that the total population is at risk to the wildfire hazard. Determining the exact number of people in certain wildfire zones is difficult with existing data and could be misleading.

Critical Facilities

The critical facility analysis revealed that there is one critical facility located in an area considered very low risk valued at over \$5.8M. There are three critical facilities located in an area considered low risk valued at nearly \$28M, and there is an additional structure located in an area considered high risk valued at \$4.7M. It should be noted, however, that several factors could impact the spread of a wildfire putting all facilities at risk. A list of specific critical facilities and their associated risk can be found in **Table H.26**.

In conclusion, a wildfire event has the potential to impact many existing and future buildings, critical facilities, and populations in Wayne County.

EARTHQUAKE

The HAZUS earthquake scenario was generated for the region only and not on an individual county basis. The HAZUS model and historical occurrences confirm, any earthquake activity in the area is likely to inflict minor damage to the county. HAZUS estimates a total exposure of approximately \$20,561,000 which includes buildings, inventory, and contents throughout the region. While this number is not an exact representation of assessed tax value, it is helpful in assessing the results of the HAZUS scenario.

For the earthquake hazard vulnerability assessment, an arbitrary scenario was created to estimate damages to the planning area. HAZUS estimates that no buildings would be moderately damaged.

Social Vulnerability

It can be assumed that all existing future populations are at risk to the earthquake hazard. No fatalities or injuries were reported in the above HAZUS arbitrary scenario.

Critical Facilities

There are 15 critical facilities identified for Wayne County, valued at \$77,706,036. All are vulnerable to the earthquake hazard.

In conclusion, an earthquake has the potential to impact all existing and future buildings, facilities, and populations in Wayne County. The HAZUS scenario indicates that minimal damage is expected from an earthquake occurrence. While Wayne County may not experience a large earthquake (there are none on record), localized damage is possible with an occurrence. A list of specific critical facilities and their associated risk can be found in **Table H.26**.

HURRICANE AND TROPICAL STORM

Historical evidence indicates that Wayne County has an elevated risk to the hurricane and tropical storm hazard. Several tracks have come near or traversed through the county, as shown and discussed in *Section H.2.10*.

Hurricanes and tropical storms can cause damage through numerous additional hazards such as flooding, erosion, tornadoes, and high winds, thus it is difficult to estimate total potential losses from these cumulative effects. The current HAZUS hurricane model only analyzes hurricane winds and is not capable of modeling and estimating cumulative losses from all hazards associated with hurricanes; therefore, only hurricane winds are analyzed in this section. It can be assumed that all existing and future buildings and populations are at risk to the hurricane and tropical storm hazard. HAZUS was used to determine vulnerability to the hazard for a 100-Year event. There are an estimated 100,000 buildings in the region with a total building replacement value of \$20,562,000. A 100-year probabilistic scenario was created and modeled. HAZUS estimated that approximately 1,892 buildings would be at least moderately damaged by the event; this is over two percent of the buildings in the Region. There are an estimated 69 buildings that would be damaged beyond repair.

Economic Losses

HAZUS-MH estimated economic losses for the scenario event. HAZUS estimated losses at \$349.5M, which represents 1.7 percent of the total replacement value of the region's buildings. Nine percent of the losses were related to business interruption in the scenario region. 88 percent of the losses were sustained by residential structures.

Debris Generation

As part of the scenario, HAZUS estimated the amounts of debris that would be generated by the event. The types of debris considered were brick/wood, reinforced concrete/steel, eligible tree debris, and other tree debris. HAZUS estimated that a total of 2,165,680 tons of debris would be generated by the event. Of that amount, 93 percent would be other tree debris, approximately 1.5 percent would be brick/wood, and the rest would comprise of would-be eligible tree debris and brick/wood. Assuming a load of 25 tons per truck, this would equate to 1,190 truckloads of debris from this scenario.

Social Vulnerability

Given equal susceptibility across the county, it is assumed that the total population is at risk to the hurricane and tropical storm hazard.

Critical Facilities

Given equal vulnerability across Wayne County, all critical facilities are considered to be at risk. There are 15 critical facilities identified for Wayne County, valued at \$77,706,036. Some buildings may perform better than others in the face of such an event due to construction and age, among other factors. In general, determining individual building response is beyond the scope of this plan. However, this plan will consider mitigation actions for vulnerable structures, including critical facilities, to reduce the impacts of the hurricane wind hazard. A list of specific critical facilities and their associated risk can be found in **Table H.26**.

In conclusion, a hurricane event has the potential to impact many existing and future buildings, critical facilities, and populations in Wayne County. Hurricane events can cause substantial damage in their wake including fatalities, extensive debris clean-up, and extended power outages.

HAZARDOUS MATERIALS INCIDENT

Although historical evidence and existing Toxic Release Inventory sites indicate that Wayne County is susceptible to hazardous materials events, there are few reports of damage.

Most hazardous materials incidents that occur are contained and suppressed before destroying any property or threatening lives. However, they can have a significant negative impact. Such events can cause multiple deaths, completely shut down facilities for 30 days or more, and cause more than 50 percent of affected properties to be destroyed or suffer major damage. In a hazardous materials incident, solid, liquid, and/or gaseous contaminants may be released from fixed or mobile containers. Weather conditions will directly affect how the hazard develops. Certain chemicals may travel through the air or water, affecting a much larger area than the point of the incidence itself. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features, can substantially increase the damage from a hazardous materials release. The duration of a hazardous materials incident can range from hours to days. Warning time is minimal to none.

In order to conduct the vulnerability assessment for this hazard, GIS analysis was used for fixed and mobile areas. In both scenarios, two sizes of buffers—500 and 2,500 meters—were used. These areas are assumed to respect the different levels of effect: immediate (primary) and secondary. Primary and secondary impact sites were selected based on guidance from FEMA 426, Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings and engineering judgment. For the fixed site analysis, geo-referenced TRI listed toxic sites in Wayne County, along with buffers, were used for analysis as shown in **Figure H.13**. For the mobile analysis, the major roads (Interstate highway, U.S. highway, and State highway) and railroads, where hazardous materials are primarily transported that could adversely impact people and buildings, were used for the GIS buffer analysis. **Figure H.14** shows the areas used for mobile toxic release buffer analysis. The mobile toxic release buffer data did not change since the last plan update.

FIGURE H.13: TRI SITES WITH BUFFERS IN WAYNE COUNTY

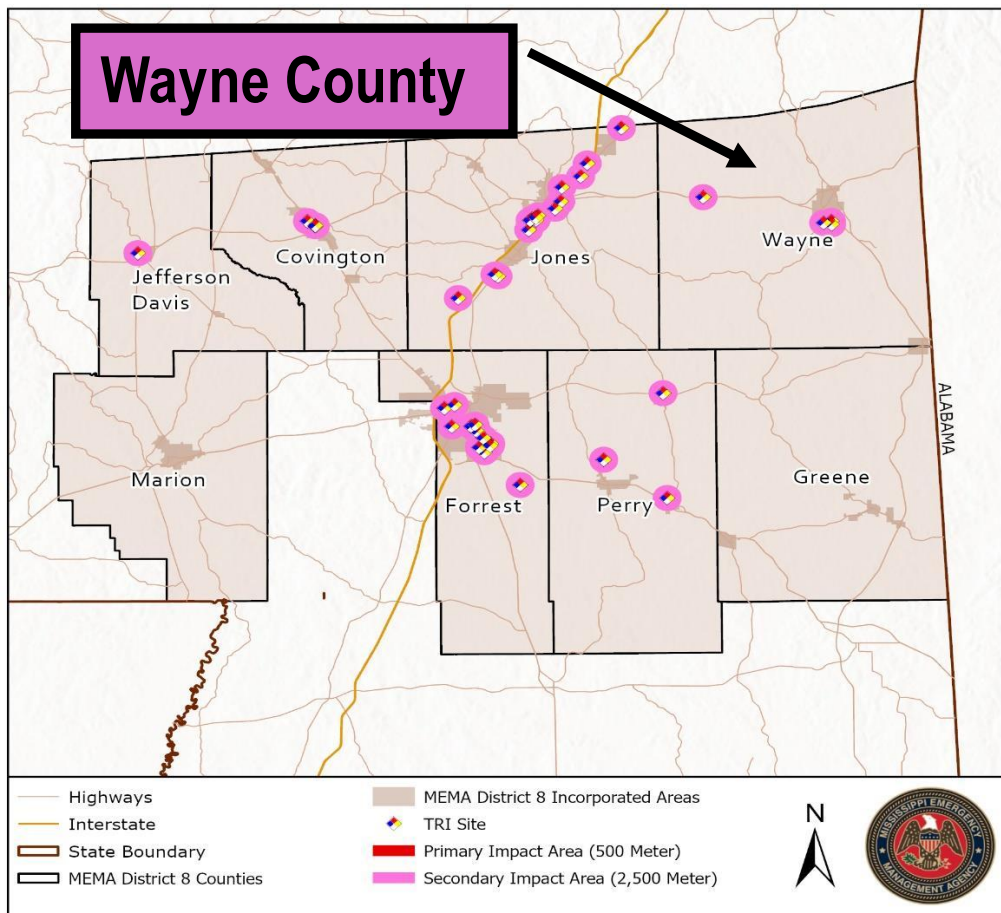
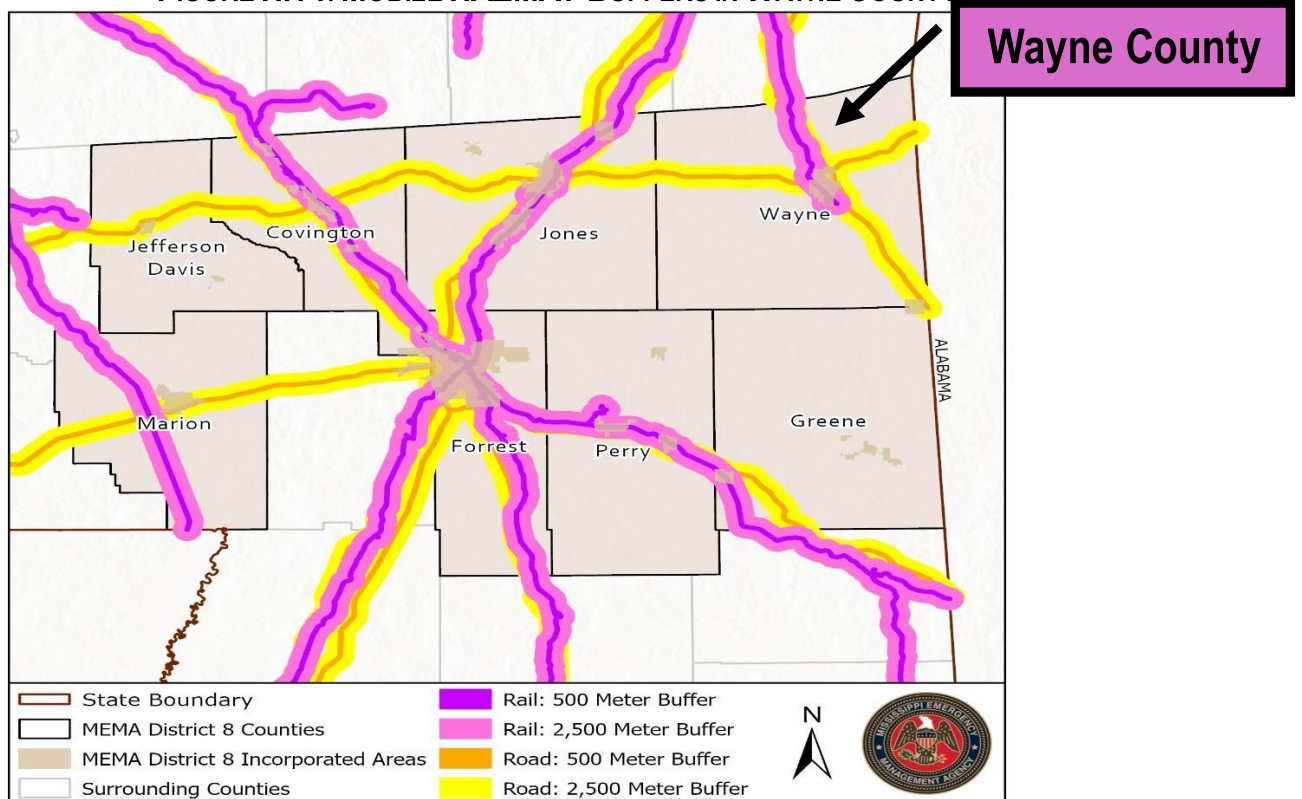


FIGURE H.14: MOBILE HAZMAT BUFFERS IN WAYNE COUNTY



Social Vulnerability

Given high susceptibility across the entire county, it is assumed that the total population is at risk to a hazardous materials incident. It should be noted that areas of population concentration may be at an elevated risk due to a greater burden to evacuate population quickly.

Critical Facilities

Fixed Site Analysis:

The critical facility analysis for fixed TRI sites revealed that there are no critical facilities that would be impacted by only the 500M HAZMAT risk zone. There are ten critical facilities that would be impacted by the 2500M HAZMAT risk zone, valued at over \$37M. A list of specific critical facilities and their associated risk can be found in **Table H.26**.

Mobile Analysis:

The critical facility analysis for transportation corridors in Wayne County revealed that there are 13 critical facilities located in the 500M Highway mobile HAZMAT buffer areas valued at nearly \$70M, and there are seven critical facilities located in the 500M Railway mobile HAZMAT buffer areas valued at approximately \$6.6M.

Expanding to a 2500M HAZMAT risk zone reveals that there are 14 critical facilities located in the highway mobile HAZMAT buffer areas are vulnerable, valued at \$71.8M. There are 13 critical facilities located in the railway mobile HAZMAT buffer area that are vulnerable, valued at over \$67M. A list of specific critical facilities and their associated risk can be found in **Table H.26** at the end of this section.

In conclusion, a hazardous material incident has the potential to impact many existing and future buildings, critical facilities, and populations in Wayne County. Those areas in a primary buffer are at the highest risk, though all areas carry some vulnerability due to variations in conditions that could alter the impact area (i.e., direction and speed of wind, volume of release, etc.). Further, incidents from neighboring counties could also impact the county and participating jurisdictions.

H.4 WAYNE COUNTY CAPABILITY ASSESSMENT

This subsection discusses the capability of Wayne County to implement hazard mitigation activities. More information on the purpose and methodology used to conduct the assessment can be found in *Section 7: Capability Assessment*.

H.4.1 Planning and Regulatory Capability

Table H.28 provides a summary of the relevant local plans, ordinances, and programs already in place or under development for Wayne County. A checkmark (✓) indicates that the given item is currently in place and being implemented. An asterisk (*) indicates that the given item is currently being developed for future implementation. Each of these local plans, ordinances, and programs should be considered available mechanisms for incorporating the requirements of the *MEMA District 8 Regional Hazard Mitigation Plan*.

TABLE H.28: RELEVANT PLANS, ORDINANCES, AND PROGRAMS

Planning/Regulatory Tool	Wayne County	Waynesboro
Hazard Mitigation Plan	✓	✓
Comprehensive Land Use Plan		✓
Floodplain Management Plan		
Open Space Management Plan	✓	✓
Stormwater Management Plan/Ordinance		✓
National Resource Protection Plan		
Flood Response Plan		
Emergency Operations Plan	✓	✓
Continuity of Operations Plan	✓	✓
Evacuation Plan	✓	✓
Disaster Recovery Plan		
Capital Improvements Plan		✓
Economic Development Plan	✓	✓
Historic Preservation Plan		
Flood Damage Prevention Ordinance	✓	✓
Zoning Ordinance		✓
Subdivision Ordinance		✓
Unified Development Ordinance		
Post-Disaster Redevelopment Ordinance		✓
Building Codes		✓
Fire Codes		✓
National Flood Insurance Program (NFIP)	✓	✓
National Community Rating System		

A more detailed discussion on the county's planning and regulatory capabilities follows.

EMERGENCY MANAGEMENT

Hazard Mitigation Plan

Wayne County has previously adopted a hazard mitigation plan. The City of Waynesboro was also included in this plan.

Emergency Operations Plan

Wayne County maintains an emergency operations plan through its Emergency Management Agency. The City of Waynesboro is covered by this plan.

GENERAL PLANNING

Comprehensive Land Use Plan

Wayne County has not adopted a county comprehensive land use plan. However, the City of Waynesboro adopted a city comprehensive plan that was adopted in 1998.

Zoning Ordinance

Wayne County does not have a zoning ordinance in place. However, the City of Waynesboro has a zoning ordinance that was adopted in 1998.

Subdivision Ordinance

Wayne County does not have a subdivision ordinance in place. However, the City of Waynesboro adopted subdivision regulations concurrently with its zoning ordinance in 1998.

Building Codes, Permitting, and Inspections

Wayne County and the City of Waynesboro have both adopted building codes.

FLOODPLAIN MANAGEMENT

Table H.29 provides NFIP policy and claim information for each participating jurisdiction in Wayne County.

TABLE H.29: NFIP POLICY AND CLAIM INFORMATION

Location	Date Joined NFIP	Current Effective Map Date	NFIP Policies in Force	Insurance in Force	Closed Claims	Total Payments to Date
Wayne County†	8/16/1988	7/18/2011	44	\$6,960,900	6	\$117,636
Waynesboro	8/16/1988	7/18/2011	32	\$3,136,500	17	\$134,036

†Includes unincorporated areas of county only
(M) – No Elevation Determined, All Zone A, C and X

Flood Damage Prevention Ordinance

All communities participating in the NFIP are required to adopt a local flood damage prevention ordinance. Wayne County and the City of Waynesboro all participate in the NFIP and have adopted flood damage prevention ordinances.

Open Space Management Plan

Wayne County and the City of Waynesboro all included in the Southern Mississippi Planning and Development District (SMPDD) Regional Open Space Plan that was written in 1973.

H.4.2 Administrative and Technical Capability

Table H.30 provides a summary of the capability assessment results for Wayne County with regard to relevant staff and personnel resources. A checkmark (✓) indicates the presence of a staff member(s) in that jurisdiction with the specified knowledge or skill.

TABLE H.30: RELEVANT STAFF / PERSONNEL RESOURCES

Staff/Personal Resource	Wayne County	Waynesboro
Planners with knowledge of land development/ land management practices		
Engineers of professionals trained in construction practices related to buildings and/or infrastructure	✓	✓
Planners or engineers with an understanding of natural and/or human-caused hazards.	✓	✓
Emergency Manager	✓	✓
Floodplain Manager	✓	✓
Land Surveyors	✓	✓
Scientists familiar with the hazards of the community.	✓	✓
Staff with education or expertise to assess the community's vulnerability to hazards.	✓	✓
Personnel skilled in GIS and/or HAZ-US	✓	✓
Resource development staff or grant writers		

Credit for having a floodplain manager was given to those jurisdictions that have a flood damage prevention ordinance, and therefore an appointed floodplain administrator, regardless of whether the appointee was dedicated solely to floodplain management. Credit was given for having a scientist familiar with the hazards of the community if a jurisdiction has a Cooperative Extension Service or Soil and Water Conservation Department. Credit was also given for having staff with education or expertise to assess the community's vulnerability to hazards if a staff member from the jurisdiction was a participant on the existing hazard mitigation plan's planning committee.

H.4.3 Fiscal Capability

Table H.31 provides a summary of the results for Wayne County with regard to relevant fiscal resources. A checkmark (✓) indicates that the given fiscal resource is locally available for hazard mitigation purposes (including match funds for state and federal mitigation grant funds) according to the previous county hazard mitigation plan.

TABLE H.31: RELEVANT FISCAL RESOURCES

Fiscal Tool/Resource	Wayne County	Waynesboro
Capital Improvement Programing	✓	✓
Community Development Block Grants (CDBG)	✓	✓
Special Purchase Taxes (or taxing districts)	✓	✓
Gas/ Electric Utility Fees	✓	✓
Water/ Sewer Fees	✓	✓
Stormwater Utility Fees		
Development Impact Fees		
General Obligation, Revenue, and/or Special Tax Bonds	✓	✓
Partnering Arrangements or Intergovernmental Agreements	✓	✓

H.4.4 Political Capability

During the months immediately following a disaster, local public opinion in Wayne County is more likely to shift in support of hazard mitigation efforts.

H.5 WAYNE COUNTY MITIGATION STRATEGY

This subsection provides the blueprint for Wayne County to follow in order to become less vulnerable to its identified hazards. It is based on general consensus of the Regional Hazard Mitigation Council and the findings and conclusions of the capability assessment and risk assessment. Additional Information can be found in *Section 8: Mitigation Strategy* and *Section 9: Mitigation Action Plan*.

H.5.1 Mitigation Goals

Wayne County developed five mitigation goals in coordination with the other participating *MEMA District 8 Region* jurisdictions. The regional mitigation goals are presented in **Table H.32**.

TABLE H.32: MEMA DISTRICT 8 REGIONAL MITIGATION GOALS

Goal	
Goal #1	Develop a sustainable, comprehensive mitigation program to ensure safer communities.
Goal #2	Reduce or avoid loss of life, injury, and damage to property, the economy, and the environment.
Goal #3	Enhance preparedness and effective response to hazards.
Goal #4	Strengthen and improve local mitigation capabilities.
Goal #5	Increase public awareness of hazard mitigation, hazard risk, and protective measures that can be taken to minimize potential loss and damage.

H.5.2 Mitigation Action Plan

The mitigation actions proposed by Wayne County and the City of Waynesboro are listed in the following individual Mitigation Action Plans

Wayne County Mitigation Action Plan								
Action #	Description	Hazard(s) Addressed	Relative Priority	Funding	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status

Sources								
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of the flood damage prevention ordinance in Wayne County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented & Ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Monitor flood level of local rivers.	FL	High	Grants, BRIC, HMGP	Unknown	County	Ongoing	Ongoing
P-6	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, TS	High	Self-funded	Unknown	County	Annual Review	Ongoing (Some progress implemented- clean out ditches annually.)
P-7	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred. (Waynesboro is mapping drainage areas and it will include elevations, cross sections, and flow directions.)
P-8	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing
P-9	Develop a government services continuity plan.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Completed & Ongoing
P-10	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	Unknown	County	Ongoing	Ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	Grants, BRIC, HMGP,	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	Unknown	County	Ongoing	Implemented and ongoing
PP-6	Property Acquisitions and elevations of flood prone structures	FL	Medium	Grants, BRIC, HMGP, PDM	TBD	County	Ongoing	Ongoing
PP-7	Generators and hook-ups for critical facilities	TH, HU, TS, TO	Medium	HMA, Grants, BRIC, HMGP,	TBD	County	Ongoing	Ongoing
PP-8	Warning sirens throughout planning area	TH, TO	Medium	HMA, Grants, BRIC, HMGP,	TBD	County	Ongoing	Ongoing
PP-9	Individual saferooms throughout planning area	TO	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
PP-10	361 Saferooms were needed- location is TBD	TO	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	

								Ongoing
PP-11	Elevation of critical facilities, such as pumps, and equipment	FL	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
PP-12	Floodproofing measures for critical facilities prone to flood	FL	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and MEMA	Low to no cost	JDCEMA	Annual Review	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, JDCEMA	Ongoing	Completed and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	Grants, BRIC, HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	Grants, BRIC, HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Unknown	Unknown	County EMA	Contingent on funding	Ongoing (MSWINN at Fire Department and all use social media.)
ES-7	Ensure that emergency sirens are in place county-wide.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-8	Install warning informers in buildings that house vulnerable populations.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-9	Install Alert FM service at radio station.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-10	Upgrade Emergency Broadcast System capabilities.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Ongoing
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	Grants, BRIC, HMGP	Unknown	County	Ongoing	Ongoing
ES-14	Host a meeting to review Wayne County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Annual Review	Ongoing
ES-15	Actively search for and identify funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Ongoing
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing

	projects with overlapping boundaries.							
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, Grants, BRIC, HMGP	Low Cost	County	Ongoing	Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspapers.	FL, Multiple Hazards	High	Self-funded	No additional cost	County EMA	Upon Request	Implemented / Ongoing
PEA-5	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	Low or no Cost	County	Ongoing	Implemented and Ongoing
PEA-6	Education and outreach regarding drought and water conservation procedures	All	Medium	Self-funded	Low or no cost	County	Ongoing	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic County EMA = Wayne County Emergency Management Agency County BOS = Wayne County Board of Supervisors								

The City of Waynesboro Mitigation Action Plan

Action #	Description	Hazard(s) Addressed	Relative Priority	Funding Sources	Estimated Cost	Responsible Party	Completion Date (Target)	Implementation Status
Prevention								
P-1	Identify high risk areas where hazards are most likely to occur.	All	High	N/A	No cost	County	Annual Plan Review	Ongoing
P-2	Site-locate vulnerable population on a County-wide map.	Multiple	High	Area Agency on Aging, USDA Rural Dev., Cops, FIRE	Unknown	County, JDCEMA	Annual Review	Ongoing
P-3	Consider adoption of the flood damage prevention ordinance in Wayne County.	FL	High	Self-funded	No cost	County & Floodplain Admin.	Ongoing	Implemented & Ongoing
P-4	Consider adoption of subdivision regulations.	TH, FL, HU, TS	Medium	Self-funded	No cost	County	Ongoing	Ongoing
P-5	Monitor flood level of local rivers.	FL	High	Grants, BRIC, HMGP	Unknown	County	Ongoing	Ongoing
P-6	Continue to maintain and upgrade the County's drainage facilities.	HU, TS, FL, TS	High	Self-funded	Unknown	County	Annual Review	Ongoing (Some progress implemented- clean out ditches annually)
P-7	Consider adoption of a comprehensive drainage plan.	FL, TS, HU	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Deferred. (Waynesboro is mapping drainage areas and it will include elevations, cross sections, and flow directions.)
P-8	Map the easements and rights-of-way of roadways and drainage ways.	All	Low to Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Ongoing
P-9	Develop a government services continuity plan.	All	Medium	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev.	Unknown	County	Ongoing	Completed & Ongoing
P-10	Support the development of a shared geographic data system for land use and site planning.	All	Medium to high	Self-funded	Unknown	County	Ongoing	Ongoing
Property Protection								
PP-1	Promote alternative construction techniques such as the building of "safe rooms" in new construction and when remodeling existing structures.	HU, TS, TO, TH	Medium	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-2	Ensure that structures in floodplain areas are elevated.	FL	High	Self-funded	No cost	County	Ongoing	Implemented and ongoing
PP-3	Ensure that new public buildings are designed and built to hurricane resistant building codes.	HU, TS, TO, HW	High	Self-funded	No cost	County	Ongoing	Deferred due to funds
PP-4	Continue to retrofit public buildings and other critical facilities to withstand natural hazards.	All	High	Grants, BRIC, HMGP	Unknown	County	Ongoing	Deferred
PP-5	Ensure secure operation of water wells, water tanks, and wastewater treatment facilities.	All	High	CDBG, Small Muni. Grant, MSDA, USDA Rural Dev., HMGP	Unknown	County	Ongoing	Implemented and ongoing
PP-6	Property Acquisitions and elevations of flood prone structures	FL	Medium	Grants, BRIC, HMGP, PDM	TBD	County	Ongoing	Ongoing
PP-7	Generators and hook-ups for critical facilities	TH, HU, TS, TO	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
PP-8	Warning sirens throughout	TH, TO	Medium	HMA, Grants,	TBD	County	Ongoing	Ongoing

	planning area			BRIC, HMGP				
PP-9	Individual saferooms throughout planning area	TO	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
PP-10	361 Saferooms were needed- location is TBD	TO	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
PP-11	Elevation of critical facilities, such as pumps, and equipment	FL	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
PP-12	Floodproofing measures for critical facilities prone to flood	FL	Medium	HMA, Grants, BRIC, HMGP	TBD	County	Ongoing	Ongoing
Natural Resource Protection								
NRP-1	Preserve natural wetlands and riparian areas through acquisition of conversation easements.	HU, TS, FL	Low to Medium	Donation	Low to no cost	MS Land Trust, Land Trust for MS Coastal Plain, County	Ongoing	Ongoing
Emergency Services								
ES-1	Encourage participation by staff and elected officials in voluntary or extracurricular activities related to emergency management, disaster preparedness, civil defense, or other hazard mitigation activities.	All	Medium	Self-funded and Grants, BRIC, HMGP	Low to no cost	JDCEMA	Annual Review	Ongoing
ES-2	Establish a notification procedure for populations in high-risk areas.	All	Medium	Self-funded	No additional cost	County, JDCEMA	Ongoing	Complemented and ongoing
ES-3	Survey the existing emergency shelters and study the feasibility of expanding the capacity of shelters.	All	High	Grants, BRIC, HMGP	Unknown	County and County EMA	Ongoing	Deferred due to funding
ES-4	Explore potential sites for a new shelter and/or special needs shelter.	TO, HU, TS, FL	High	Grants, BRIC, HMGP	Unknown	County and EMA	Ongoing	Deferred due to funding
ES-5	Improve disaster communication systems within the County.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing (MSWINN at Fire Department and all use social media.)
ES-7	Ensure that emergency sirens are in place county-wide.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-8	Install warning informers in buildings that house vulnerable populations.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-9	Install Alert FM service at radio station.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Completed & Ongoing
ES-10	Upgrade Emergency Broadcast System capabilities.	All	High	Grants, BRIC, HMGP	Unknown	County EMA	Contingent on funding	Ongoing
ES-11	Coordinate with neighboring jurisdictions to ensure consistency of evacuation plans.	FL, HU, TS, Others	Medium	Self-funded	No additional cost	County BOS, County EMA	Ongoing	Ongoing
ES-12	Enhance identification of evacuation routes through the distribution of MDOT maps.	FL, HU, TS, Others	High	Self-funded	No additional cost	County EMA	Ongoing	Implemented / Ongoing
ES-13	Ensure continuity of utility services for public buildings and other critical facilities.	All	High	Grants, BRIC, HMGP	Unknown	County	Ongoing	Ongoing
ES-14	Host a meeting to review Wayne County Comprehensive Emergency Management Plan.	TT	Medium	Self-funded	No additional cost	County	Annual Review	Ongoing
	Actively search for and identify							

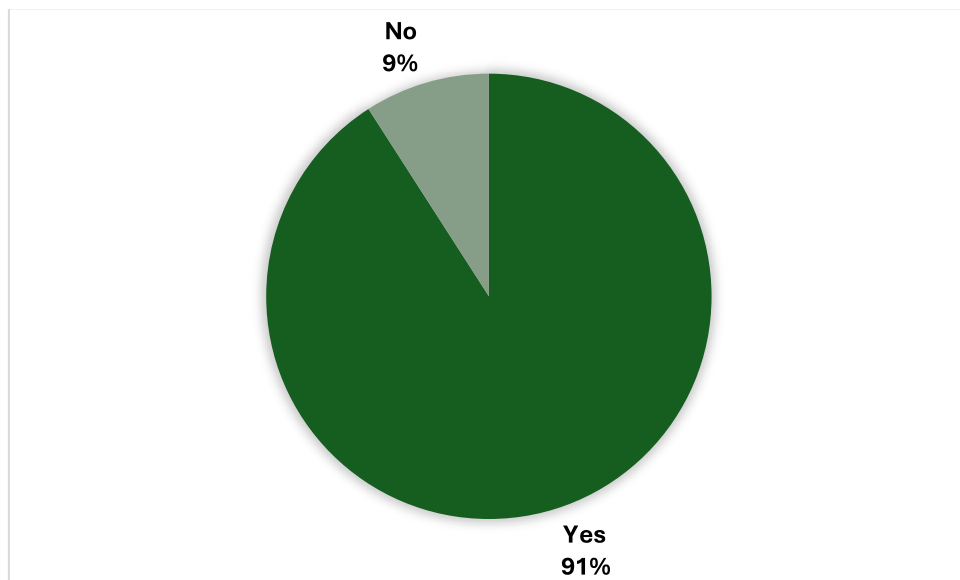
ES-15	funding sources for the enhancement of emergency response abilities of Fire and Sheriff's Departments.	TT	Medium to High	DHS, SAFER, COPS, FIRE	Unknown	County	Ongoing	Ongoing
Structural Projects								
SP-1	Address cross-jurisdictional issues related to response, recovery and mitigation on key projects with overlapping boundaries.	HU, TS, FL, RH	Low to Medium	Self-funded	No Cost	County	Ongoing	Ongoing
Public Education and Awareness								
PEA-1	Explore continuing education programs/ opportunities for staff and elected officials.	FL, TH, HU, TS	Medium	Self-funded, Grants, BRIC, HMGP	Low Cost	County	Ongoing	Ongoing
PEA-2	Provide education and outreach materials to citizens and visitors.	All	High	Self-funded	No Cost	County EMA	Ongoing	Implemented / Ongoing
PEA-3	Encourage development of Family Disaster Plans.	All	High	Self-funded, COPS, FIRE	Low or no cost	County EMA	Ongoing	Implemented / Ongoing
PEA-4	Expand outreach information to property owners regarding retrofitting and flood-proofing techniques through community workshops, brochures, and newspapers.	FL, Multiple Hazards	High	Self-funded	No cost	County EMA	Upon Request	Implemented / Ongoing
PEA-5	Encourage businesses to develop business continuity or contingency operating plans.	CH	High	DHS, SAFER, COPS, FIRE, Others	Low or no Cost	County	Ongoing	Implemented and Ongoing
PEA-6	Education and outreach regarding drought and water conservation procedures	All	Medium	Self-funded	Low or no cost	County	Ongoing	Ongoing
FL = Flood HU = Hurricane TS = Tropical Storm TO = Tornado TH = Thunderstorm BH = Biological Hazards HW = High Winds TT = Transportation and Technological Hazards RH = Roadway Hazards CH = Civil Hazards P = Pandemic County EMA = Wayne County Emergency Management Agency County BOS = Wayne County Board of Supervisors								

District 8 Regional Hazard Mitigation Plan Public Participation Survey

1. What is the name of your town, city, or county?

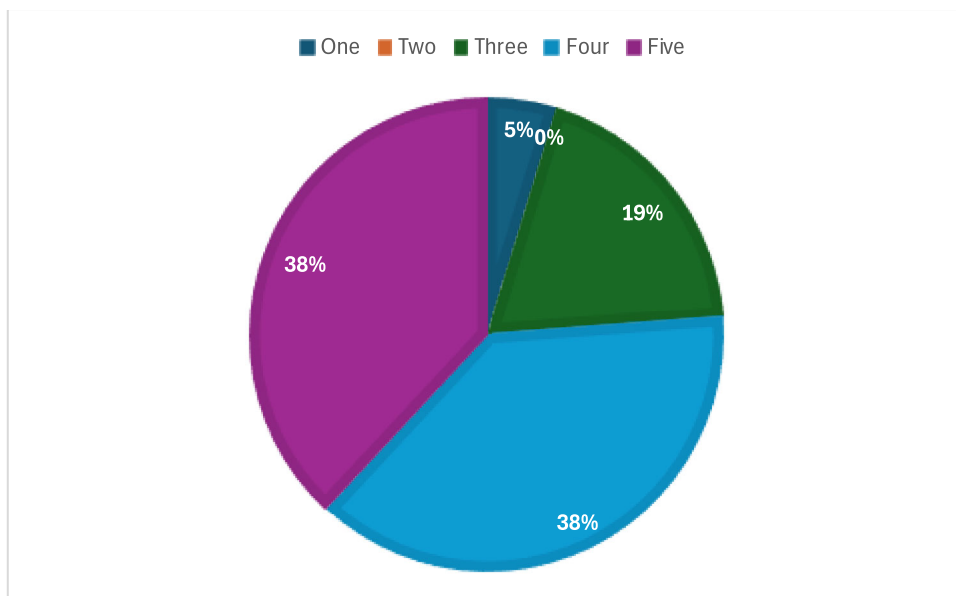
- Calhoun County
- Chickasaw County
- Choctaw County
- Clay County
- Lowndes County
- Monroe County
- Noxubee County
- Oktibbeha County
- Webster County
- Winston County

2. During the past five years, have you experienced or been impacted by a natural disaster?

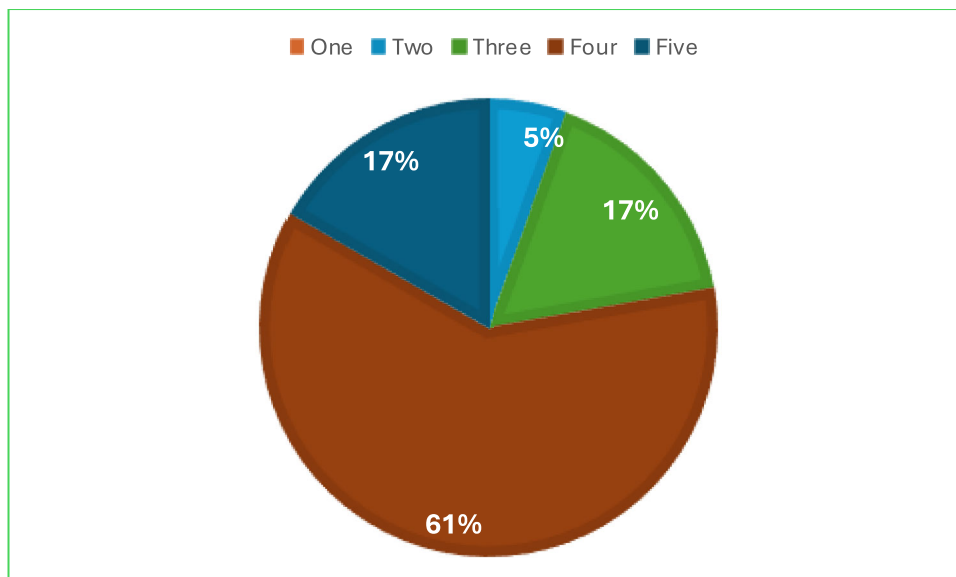


3. If yes, to question 2 explain.

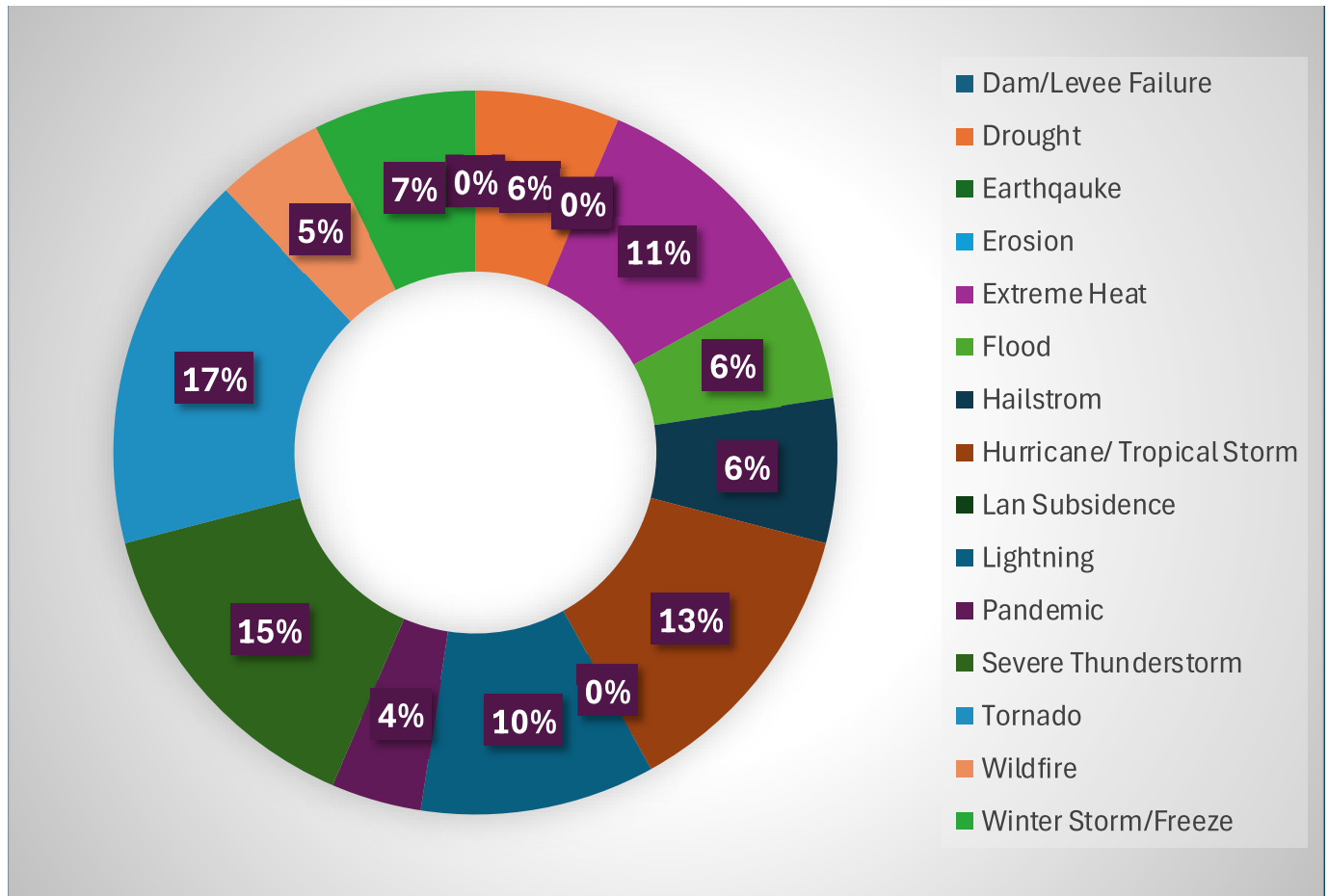
4. On a scale of 1 to 5, how concerned are you about the possibility of your community being impacted by a natural disaster? (1 – Not at all) (2 – Slightly) (3 – Moderately) (4 – Very) (5 – Extremely)



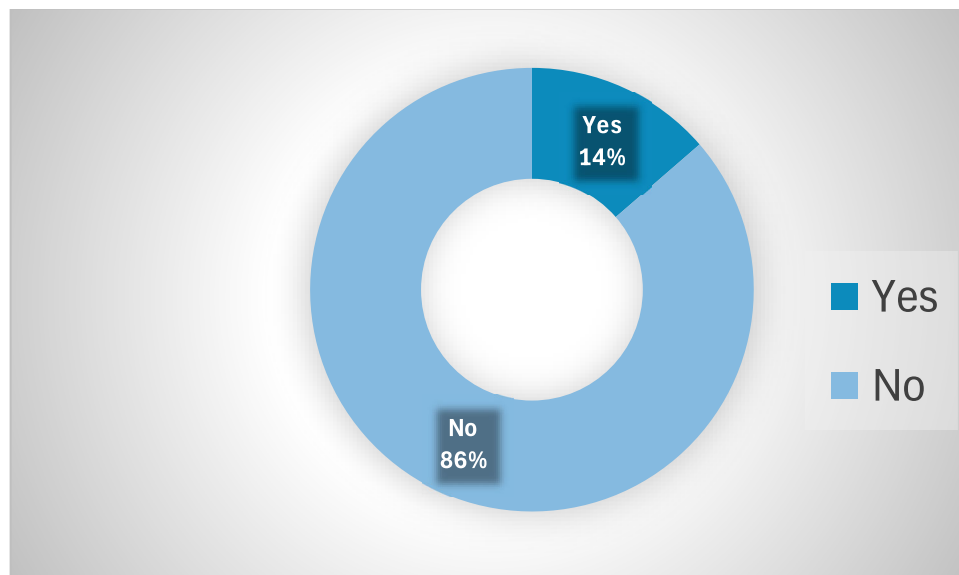
5. On a scale of 1 to 5, how prepared do you feel if a natural disaster were to occur? (1 – Not at all) (2 – Slightly) (3 – Moderately) (4 – Very) (5 – Extremely)



6. Please select hazards you think pose the greatest concern to your community:

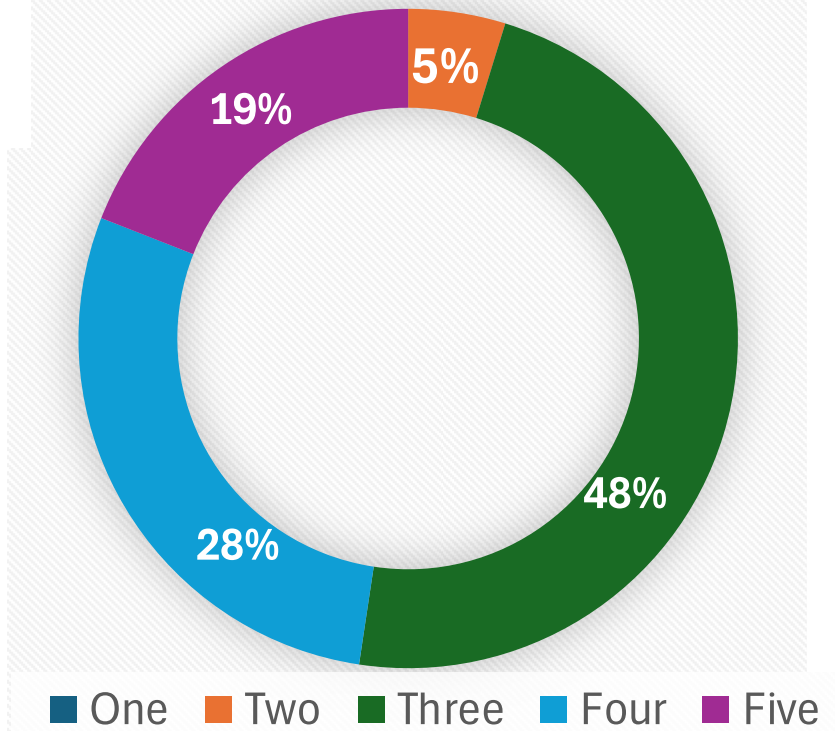


7. Is there another hazard not listed above that you think is a wide-scale threat to your community?

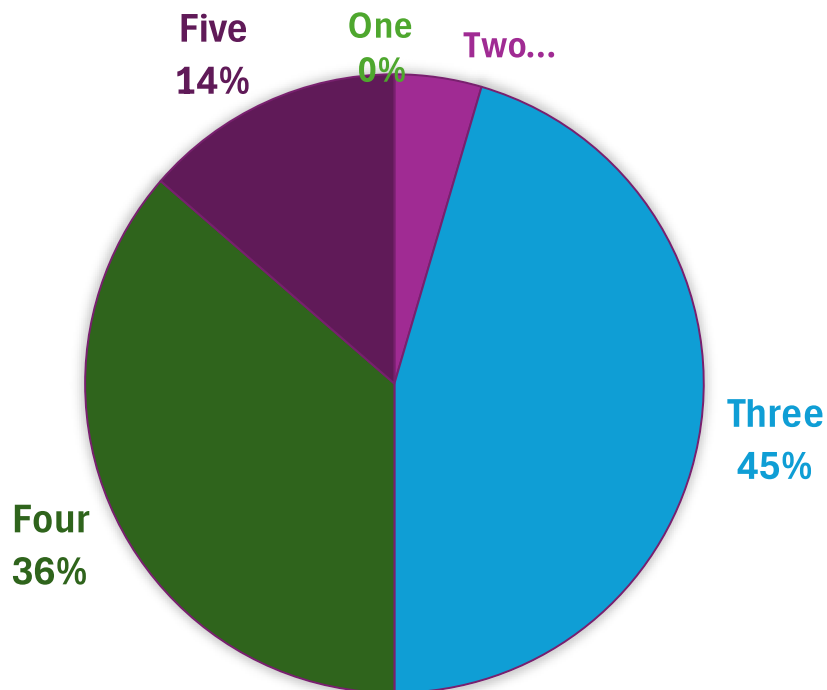


8. If yes, please explain.

9. On a scale of 1 to 5, how prepared do you feel if a natural disaster were to occur?
(1 – N/A) (2 – Slightly) (3 – Moderately) (4 – Very) (5 – Extremely)

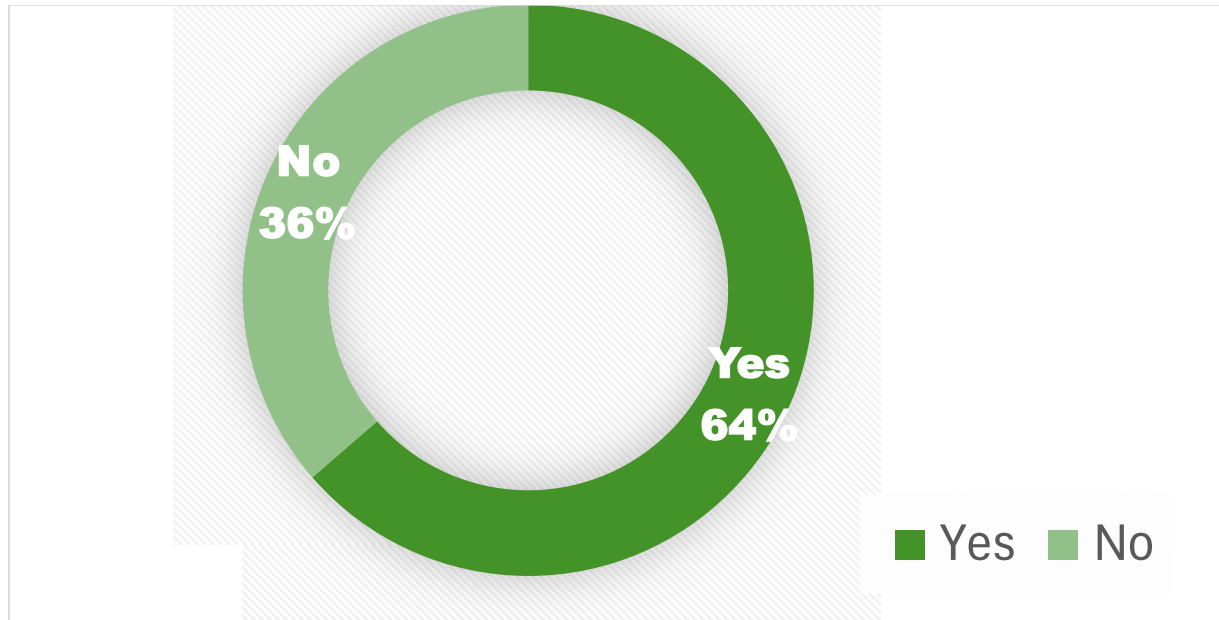


10. On a scale of 1 to 5, how informed do you feel about the risks and potential impacts of natural disasters?
(1 – N/A) (2 – Slightly) (3 – Moderately) (4 – Very) (5 – Extremely)

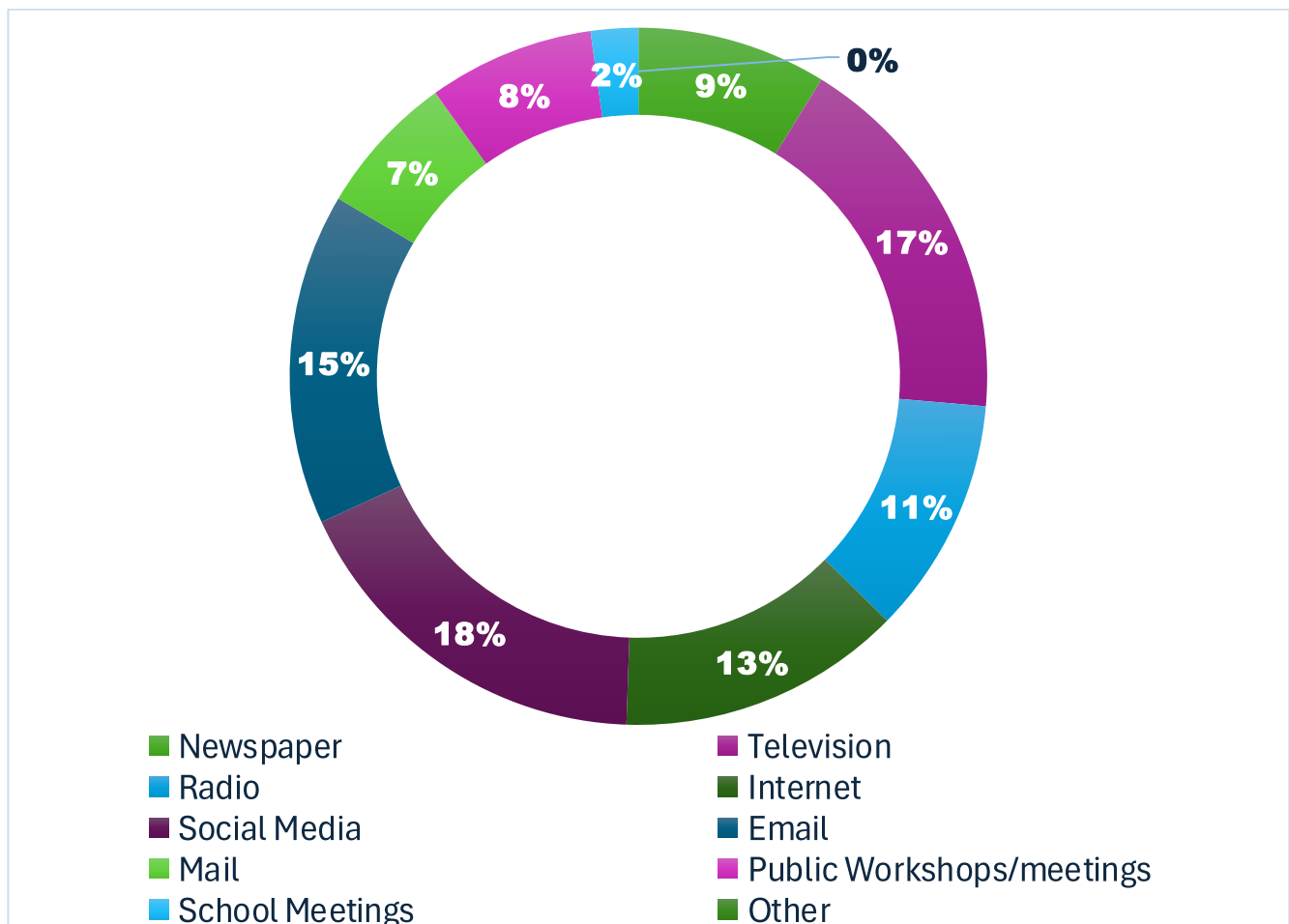


11. Do you know which government department or agency to contact regarding your risks from hazards in your

area?

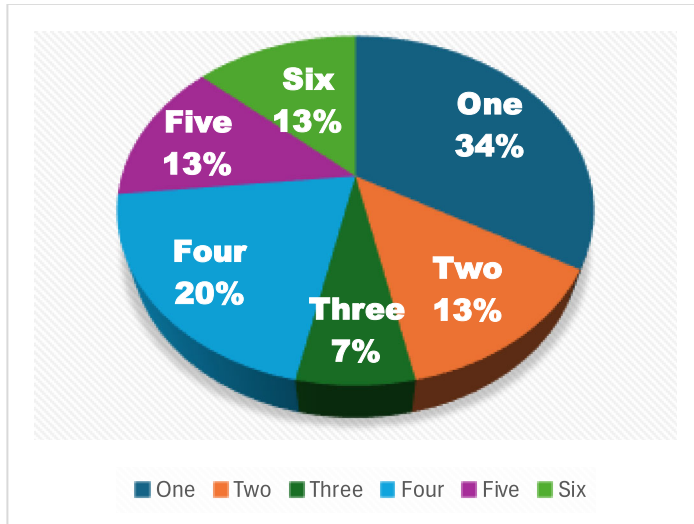


12. Please select the way (s) you prefer to receive information about how to make your home, neighborhood, or family safer from hazards:

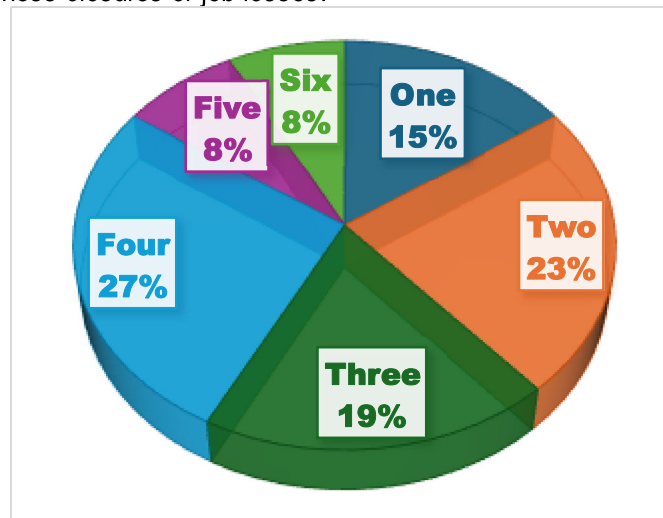


13. In your own opinion, what are some steps you local government could take to reduce the risk of future damages in your community?
14. In your opinion, which of the following assets are the most susceptible to the impacts of natural hazards in you County? Please rank the community assets in order of vulnerability, with 1 being the most vulnerable to six being the least vulnerable.

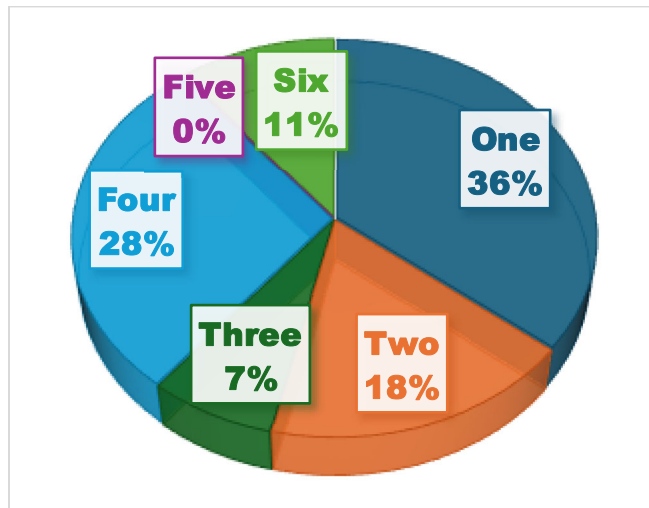
A) **Human** – Loss of life and/or injuries



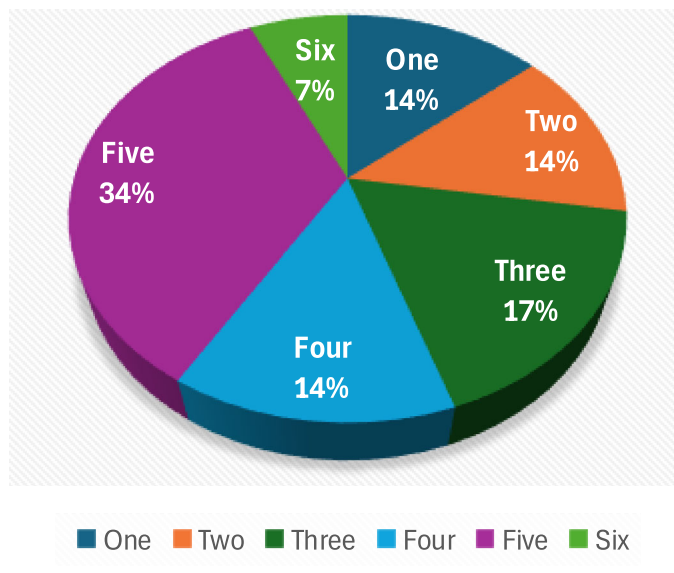
B) **Economic** – Business closures or job losses.



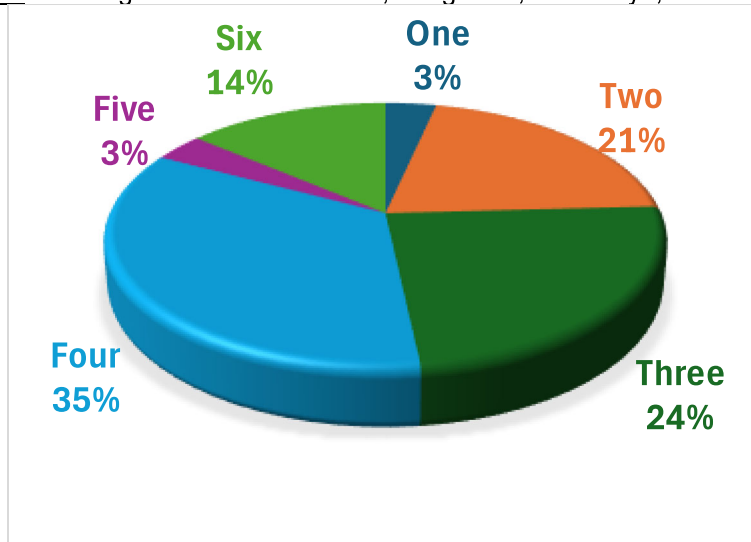
C) **Infrastructure**—Damage or loss of bridges, utilities, schools....



D) **Cultural/Historic**—Damage to or loss of Libraries, museums, landmarks, fairgrounds .



E) **Environmental**—Damage to or loss of forests, rangeland, waterways, or other natural resources .



15. A number of community-wide activities can reduce vulnerability to hazards. In general, these activities fall into

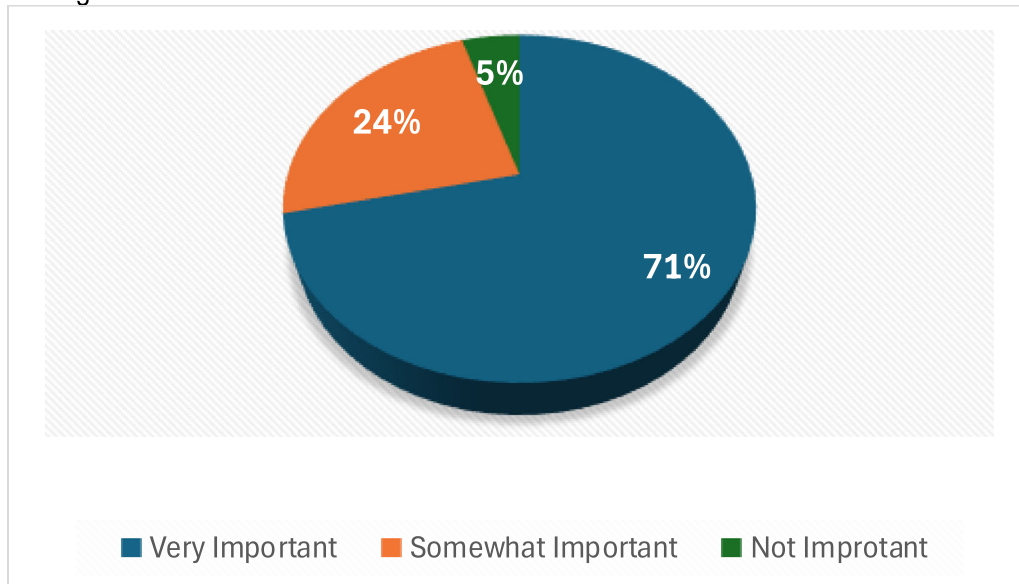
one of the following six broad categories. Tell us how important you think each category is for your community.

(**Very Important**)

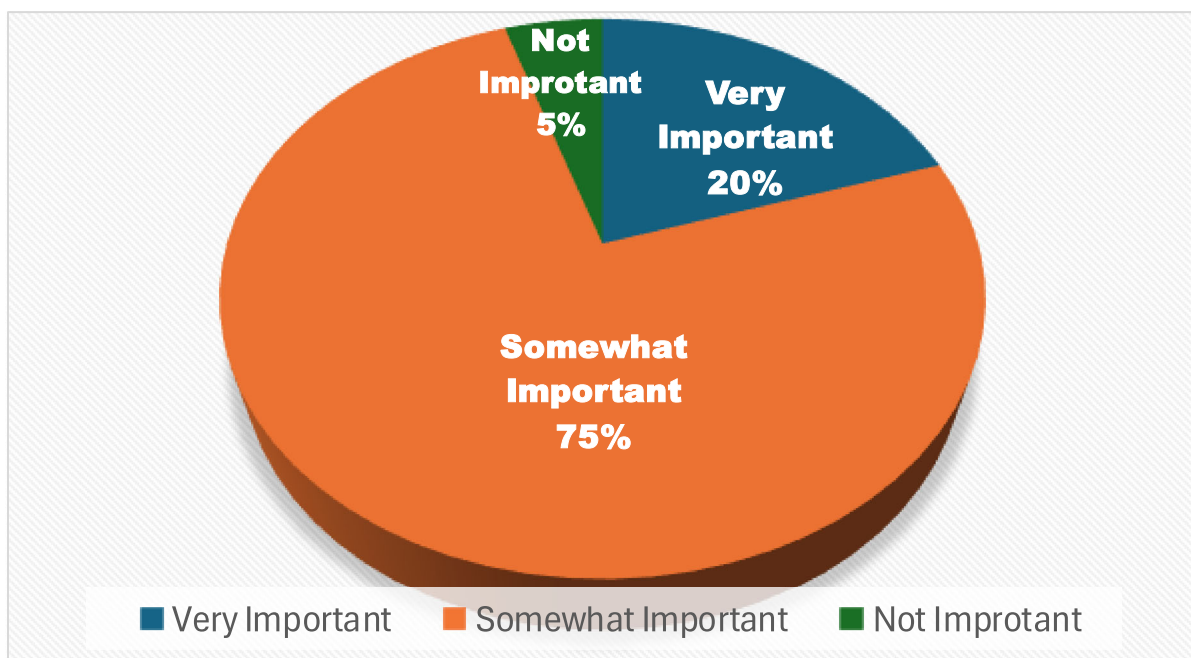
(**Somewhat Important**)

(**Not important**)

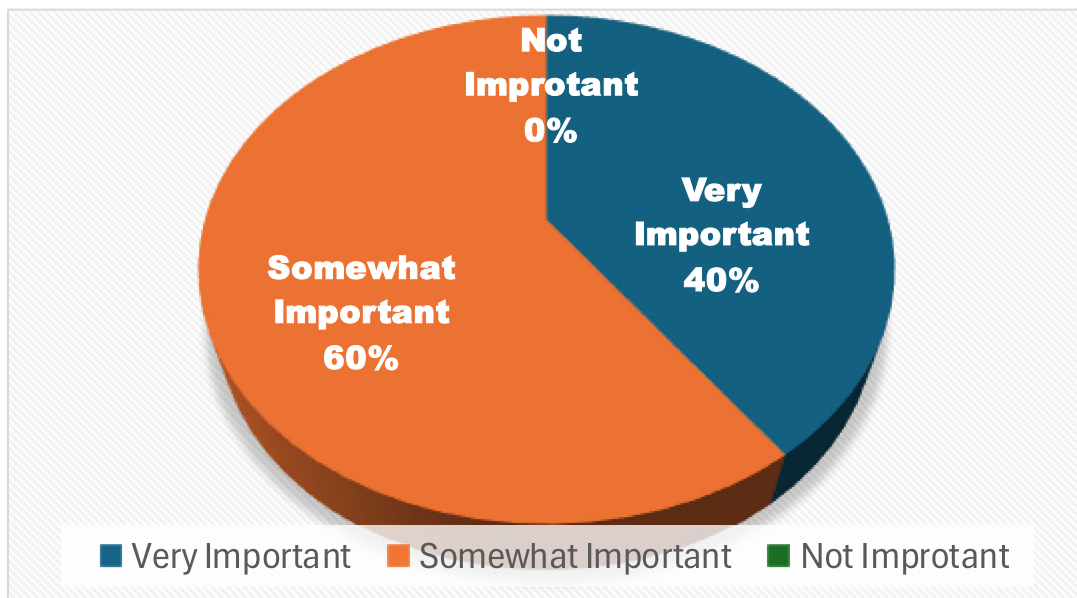
A) Preventative—Administrative or regulatory actions that influence the way the land is developed, and buildings are built. Examples include planning and zoning, building codes, open space, preservation, and floodplain regulations.



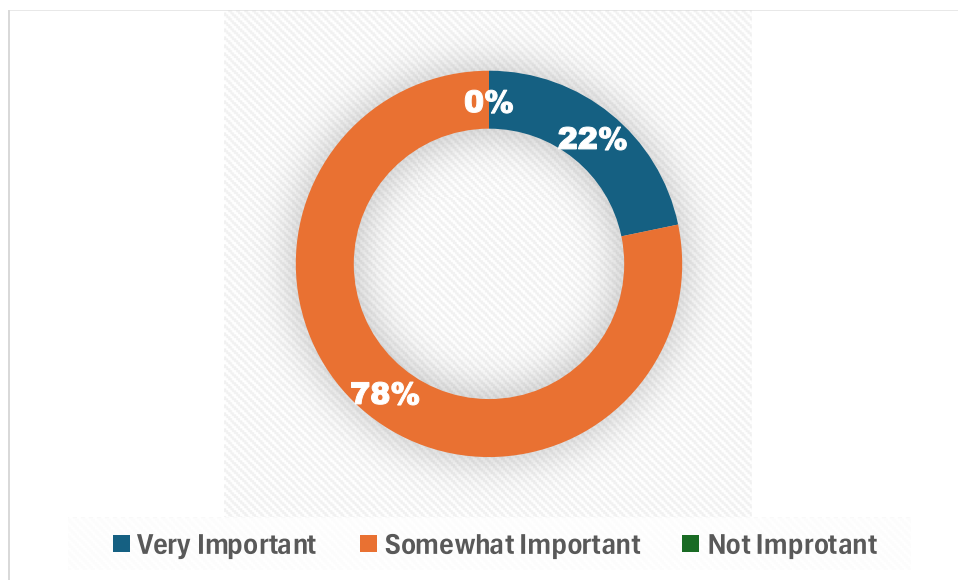
B) Property Protection—Actions that involve modification of existing buildings to protect them from a hazard or removal from the hazard area. Examples include



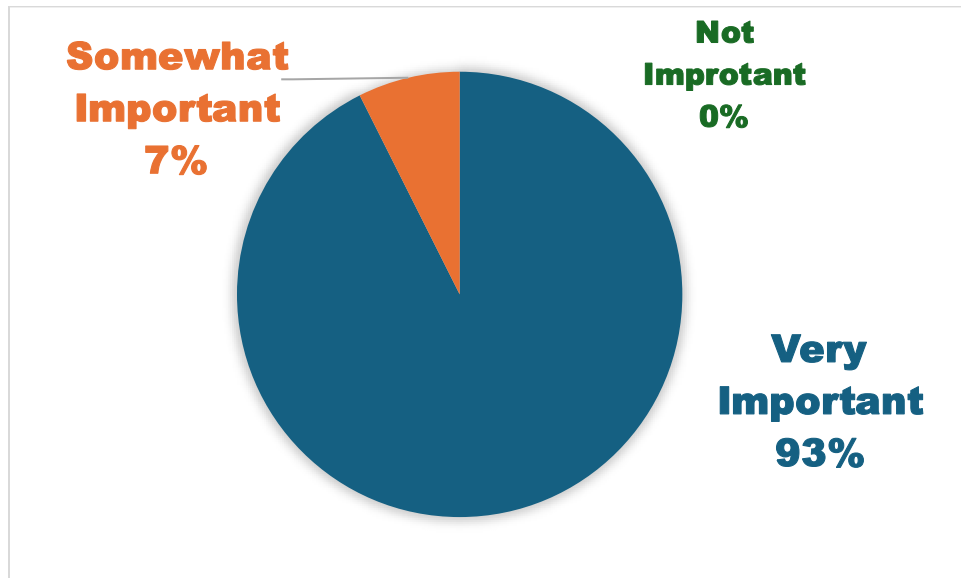
C) Natural Resource Protection—Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of the natural systems. Examples include floodplain protection, habitat preservation, slope stabilization, riparian buffers, and forest management.



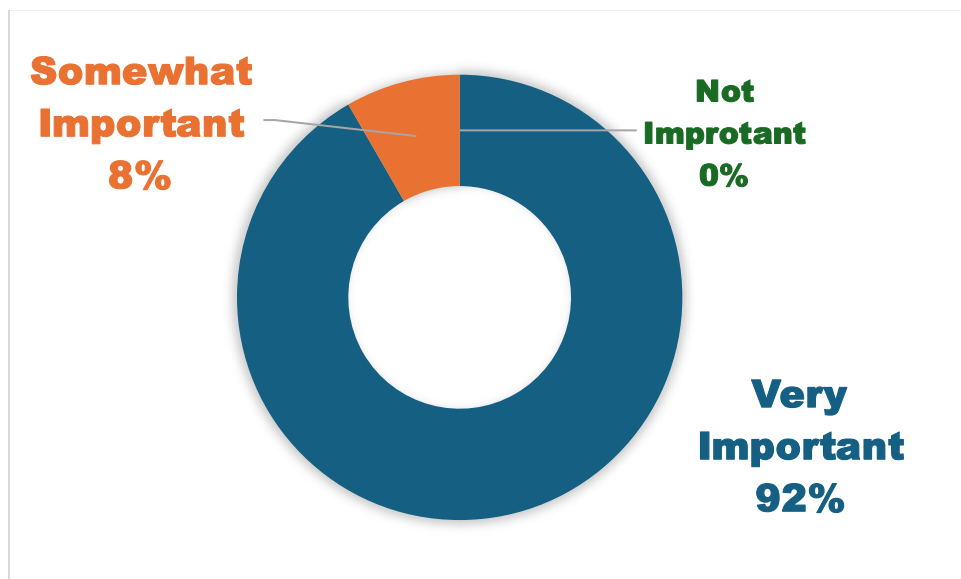
D) Structural Projects—Actions intended to lesson the impact of a hazard by modifying the natural progression of the hazard. Examples include dams, levees, detention/retention basins, channel modification, retaining walls, and storm sewers.



E) Emergency Service—Actions that protect people and property during and immediately after a hazard event. Examples include warning systems, evacuation planning, emergency response training, and protection of critical emergency facilities or systems.



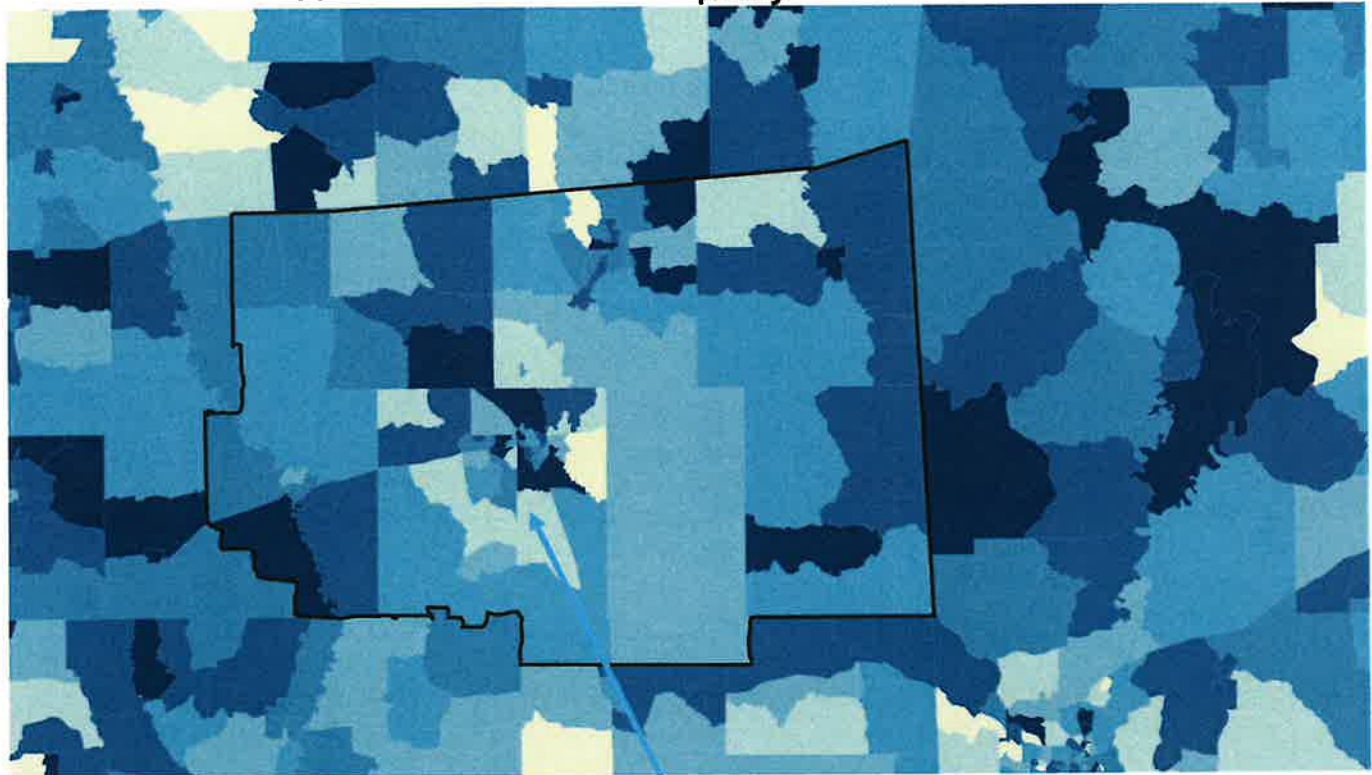
F) Public Education and Awareness—Actions to inform citizens about hazards and the techniques they can use to protect themselves and their property, Examples include outreach projects, school education programs, library materials, and demonstration events.



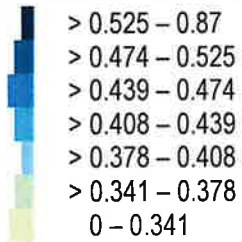
Resilience Layers For MEMA District 8

County	Population Over 65	% of Mobile Home Housing	Population Below Poverty Level	Income Inequality Index	Population Change	Community Resilience Challenges Index
Covington	13%	22%	22%	0.43	0.35	-9.0 Percentile
Forrest	16%	20%	23%	0.36	0.50	-9.0 Percentile
Greene	18%	30%	15%	0.45	0.22	-9.0 Percentile
Jefferson Davis	21%	16%	22%	0.48	0.66	-9.0 Percentile
Jones	16%	7%	22%	0.46	0.35	-9.0 Percentile
Marion	19 %	21%	24%	0.47	0.46	-9.0 Percentile
Perry	15%	32%	21%	0.39	0.02	-9.0 Percentile
Wayne	19%	21%	18%	0.53	0.63	-9.0 Percentile

Census Tracts - Income Inequality For MEMA District 8



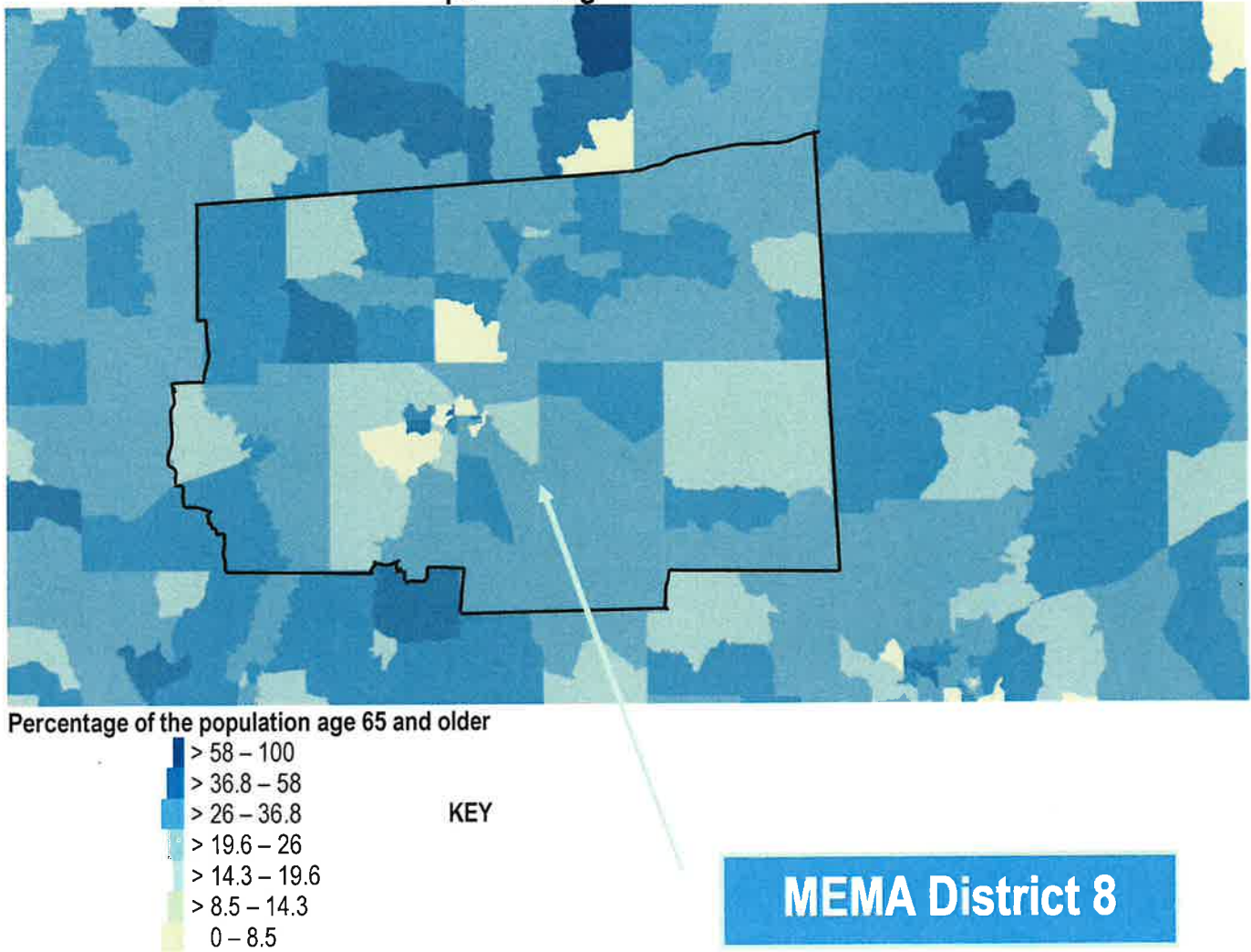
Gini Index of income inequality (income distribution across a population)



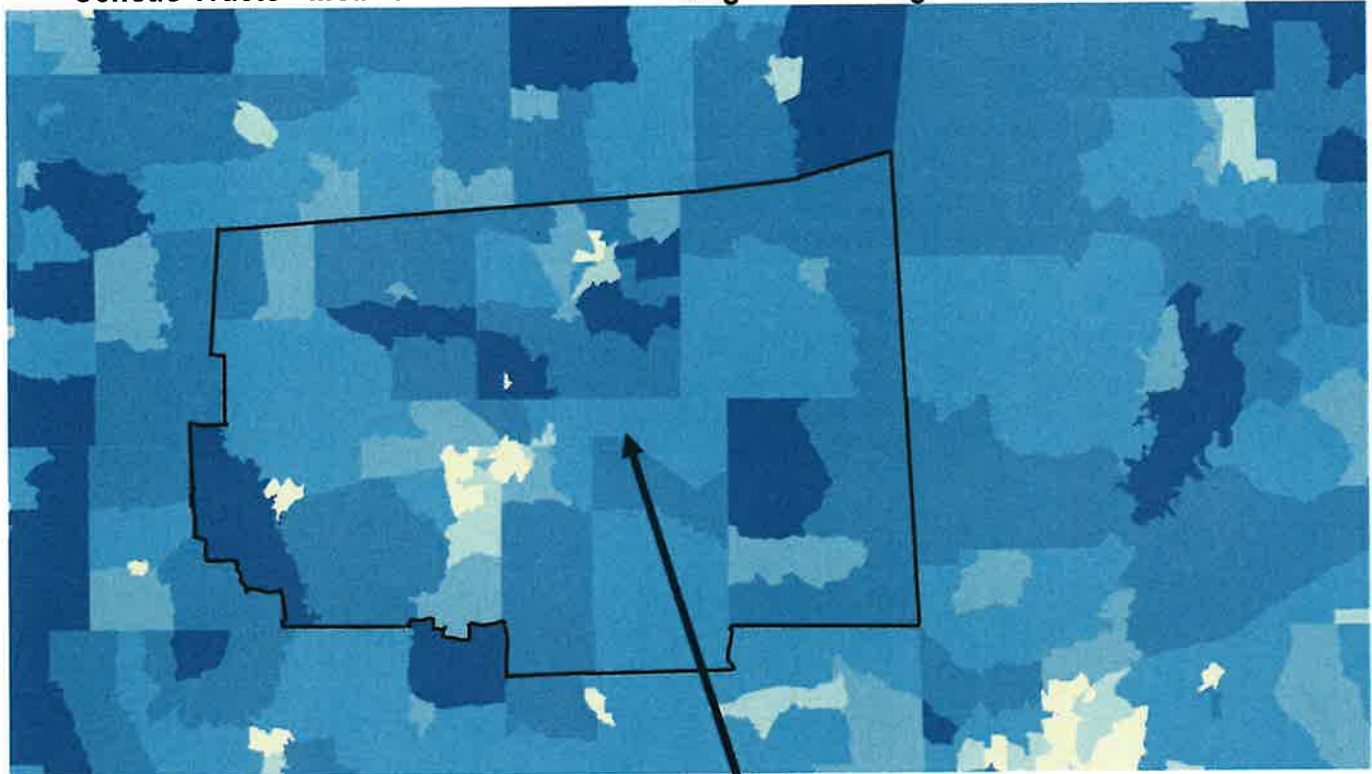
Key

MEMA District 8

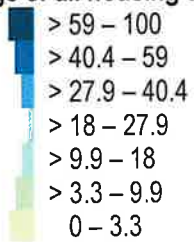
Census Tracts - Population Age 65 and Older For MEMA District 8



Census Tracts - Mobile Homes as a Percentage of Housing Units for MEMA District 8



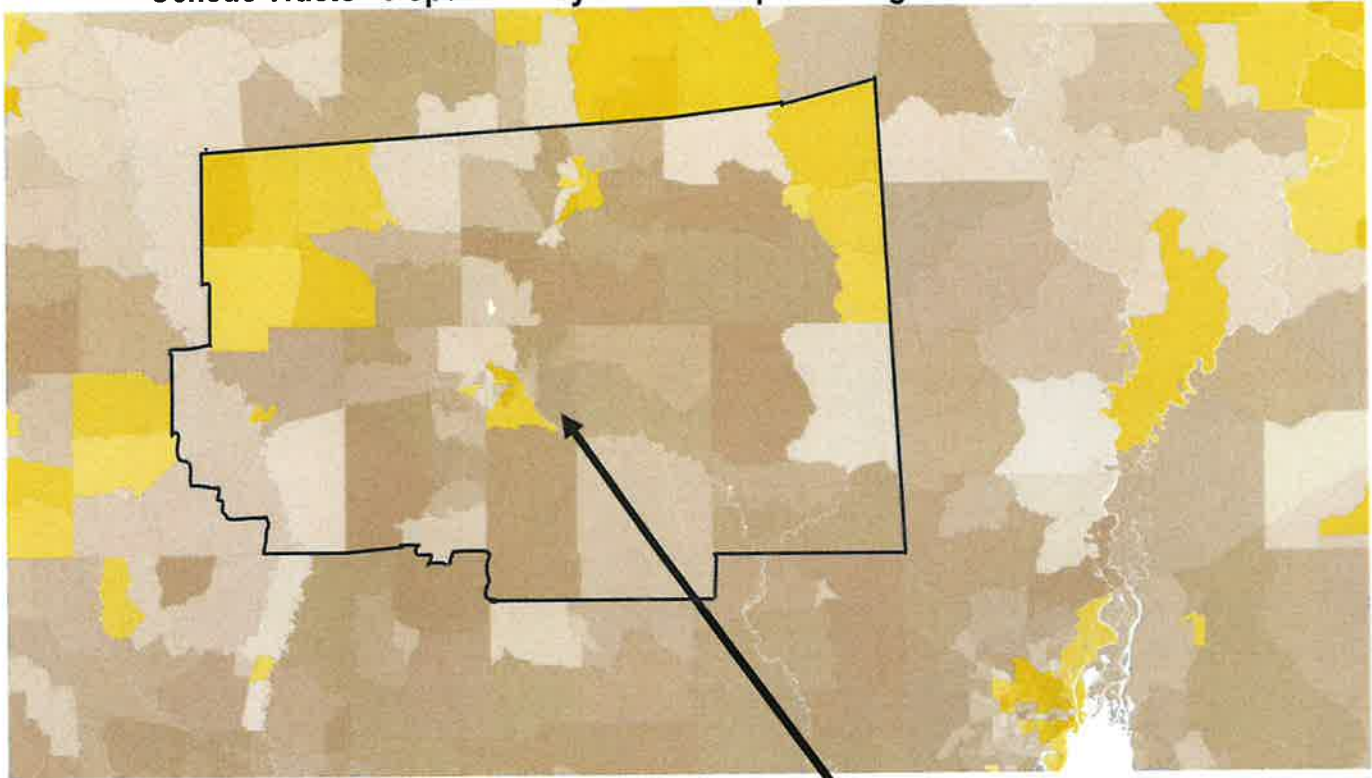
Percentage of all housing units that are mobile homes



Key

MEMA District 8

Census Tracts - Population by Race & Hispanic Origin for MEMA District 8

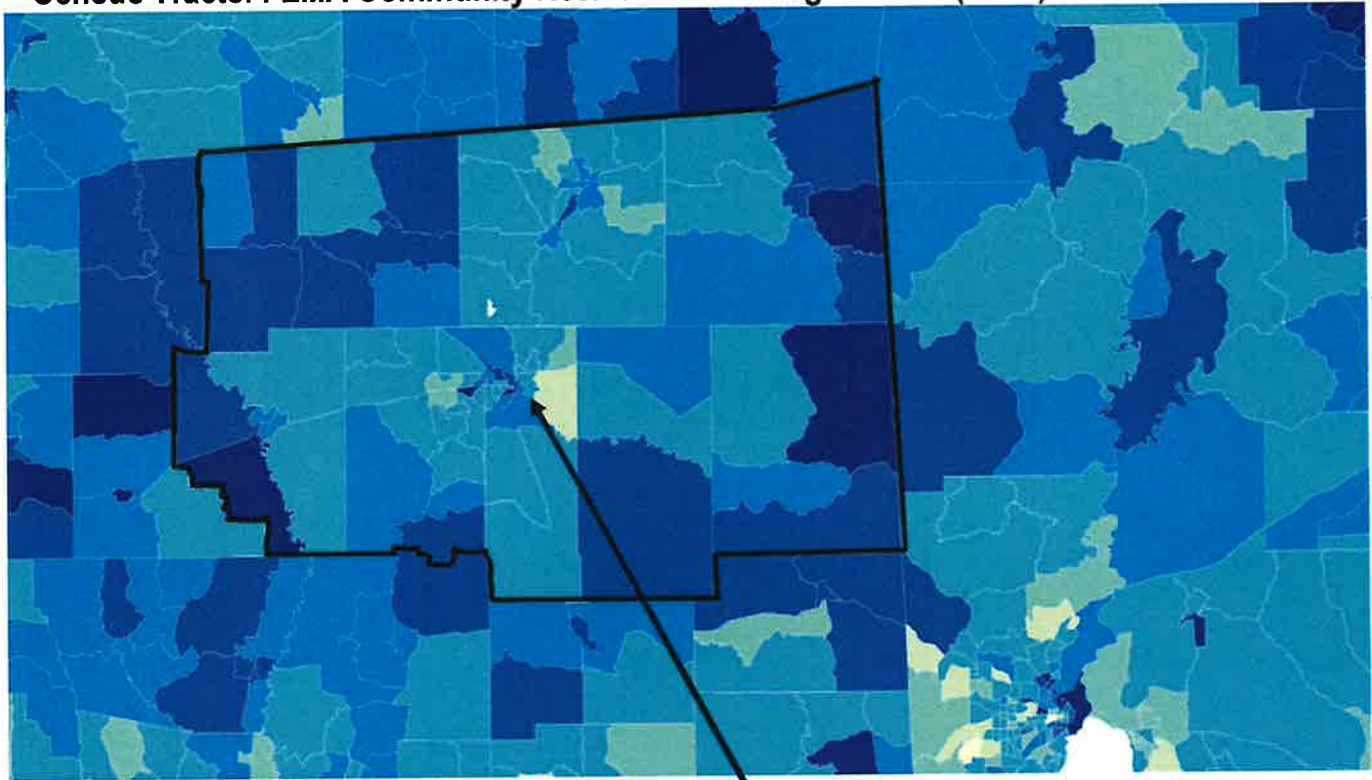


Predominant category

- White alone, not Hispanic or Latino
- Hispanic or Latino
- Black or African American alone, not Hispanic or Latino
- Asian alone, not Hispanic or Latino
- American Indian and Alaska Native alone, not Hispanic or Latino
- Two or more races, not Hispanic or Latino
- Native Hawaiian and other Pacific Islander alone, not Hispanic or Latino
- Some other race alone, not Hispanic or Latino

MEMA District 8

Census Tracts: FEMA Community Resilience Challenges Index (CRCI) for MEMA District 8



FEMA Community Resilience Challenges Index (CRCI) - Percentile. Composite of 22 CRCI Indicators

- Highest challenges (95th – 100th percentile)
- High challenges (85th – 95th percentile)
- Medium-high challenges (70th – 85th percentile)
- Medium challenges (30th to 70th percentile)
- Medium-low challenges (15th to 30th percentile)
- Low challenges (5th to 15 percentile)
- Lowest challenges (up to 5th percentile)

MEMA District 8

Temperature Projections

Covington County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is **56.07** (F). Under RCP 4.5 the annual minimum temperature at mid-century is **57.76** (F) which represents a **1.68** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is **58.22** (F) which represents a **2.15** (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is **72.39** (F). Under RCP 4.5 the annual maximum temperature at mid-century is **75.23** (F) which represents a **2.84** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is **74.89** (F) which represents a **2.49** (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is **56.07** (F). Under RCP 4.5 the annual minimum temperature at end-of-century is **59.16** (F) which represents a **3.09** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is **63.57** (F) which represents a **7.49** (F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is **76.37** (F) which represents a **3.98** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is **80.09** (F) which represents a **7.69** (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,232.27	-	4,386.71	-	-
Cooling Degree Days	2,192.44	-	2,907.79	-	-
Maximum Avg Temperature (Degrees F)	72.39	75.23	74.89	76.37	80.09
Minimum Avg Temperature (Degrees F)	56.07	57.76	58.22	59.16	63.57
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.44	-	78.66	-	83.31
Minimum Avg Temperature (Degrees F)	58.63	-	62.48	-	67.5
WINTER					
Maximum Avg Temperature (Degrees F)	59.25	-	61.57	-	65.25
Minimum Avg Temperature (Degrees F)	43.28	-	44.97	-	48.85
SPRING					
Maximum Avg Temperature (Degrees F)	73.66	-	77.61	-	81.67
Minimum Avg Temperature (Degrees F)	56.07	-	59.48	-	64.13
SUMMER					
Maximum Avg Temperature (Degrees F)	85.82	-	90.69	-	95.34
Minimum Avg Temperature (Degrees F)	71.14	-	75.39	-	79.84

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Precipitation Projections

Covington County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **43.99** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **46.36** inches which represents a **2.37** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **22.45** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **21.55** days which represents a **-0.91** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **43.99** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **51.55** inches which represents a **7.56** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **22.45** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **25.35** days which represents a **2.89** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	22.45	30.64	21.55	27	25.35
Annual Precipitation (Inches)	43.99	44.97	46.36	45.87	51.55
AUTUMN					
Daily Precipitation (Inches)	0.08	-	0.09	-	0.08
Maximum Daily Precipitation (Inches)	1.55	-	1.59	-	1.28
WINTER					
Daily Precipitation (Inches)	0.12	-	0.12	-	0.13
Maximum Daily Precipitation (Inches)	1.96	-	1.97	-	1.93
SPRING					
Daily Precipitation (Inches)	0.13	-	0.14	-	0.16
Maximum Daily Precipitation (Inches)	1.8	-	1.91	-	2.2
SUMMER					
Daily Precipitation (Inches)	0.18	-	0.17	-	0.19
Maximum Daily Precipitation (Inches)	1.57	-	1.81	-	1.83

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Wildfire Projections

Covington County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the Southwest.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **6.05**. At mid-century under RCP 8.5, the summer FWI value will change to **8.44**, representing a change of **2.39** and a percentage change of **39.43%**. By end-of-century, the summer FWI value is projected to be **10.54**, representing a change of **4.49** and a percent change of **74.13%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **8.82**. At mid-century under RCP 8.5, the summer FWI value will change to **8.81**, representing a change of **-0.01** and a percentage change of **-0.11%**. By end-of-century, the autumn FWI value is projected to be **9.85**, representing a change of **1.03** and a percent change of **11.70%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	11.85	13.75	15.67
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	13.5	14.15	16.08
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.24	3.86	6.34
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.53	9.39	9.83
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	9.49	12.58	15.15
Fire Weather Index Class	-	-	-

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Wind Speed Projections

Covington County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.74** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.66** mph which represents a **-0.08** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.79** mph which represents a **0.05** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.74** mph. Under RCP 4.5 the annual average wind speed at end-century is **5.88** mph which represents a **0.14** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.74** mph which represents a **-0.00** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.74	5.66	5.79	5.88	5.74

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AT&T



GDO



FEMA



CENTER FOR
CLIMATE RESILIENCE
AND DECISION SCIENCE

Heat Index Projections

Covington County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **91.82** (F). Under RCP 8.5, the average daily max heat index at mid-century is **99.74** (F), which represents a **7.92** (F) change from the baseline. The single highest heat index measured in Summer months is **103.86** (F) in the historical period and **122.35** (F) at mid-century (RCP8.5), representing an increase of **18.48** (F).

Historically, the number of summer days with a heat index above 95°F was **27.07** (F). By mid-century under RCP8.5, **60.62** summer days are projected to have a heat index above 95°F, representing an increase of **33.56**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **5.61** by mid-century (RCP8.5), representing a change of **5.59** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **91.82** (F). Under RCP 8.5, the average daily max heat index at end-century is **110.92** (F), which represents a **19.11** (F) change from the baseline. The single highest heat index measured in Summer months is **103.86** (F) in the historical period and **139.40** (F) at end-century (RCP8.5), representing an increase of **35.54** (F).

Historically, the number of summer days with a heat index above 95°F was **27.07** (F). By end-century under RCP8.5, **84.67** summer days are projected to have a heat index above 95°F, representing an increase of **57.60**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **24.13** by end-century (RCP8.5), representing a change of **24.11** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	91.82	99.74	110.92
Seasonal Max Heat Index (Degrees F)	103.86	122.35	139.4
Days with Max Heat Index Over 95 (Days)	27.07	60.62	84.67
Days with Max Heat Index Over 105 (Days)	2.19	16.23	55.49
Days with Max Heat Index Over 115 (Days)	0.02	5.61	24.13
Days with Max Heat Index Over 125 (Days)	0	4.19	14.85

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Temperature Projections

Forrest County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is **57.04** (F). Under RCP 4.5 the annual minimum temperature at mid-century is **58.71** (F) which represents a **1.68** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is **59.17** (F) which represents a **2.13** (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is **72.95** (F). Under RCP 4.5 the annual maximum temperature at mid-century is **75.66** (F) which represents a **2.70** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is **75.40** (F) which represents a **2.44** (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is **57.04** (F). Under RCP 4.5 the annual minimum temperature at end-of-century is **59.91** (F) which represents a **2.87** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is **64.38** (F) which represents a **7.35** (F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is **76.77** (F) which represents a **3.82** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is **80.53** (F) which represents a **7.58** (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,157.98	-	4,359.99	-	-
Cooling Degree Days	2,301.14	-	3,022.16	-	-
Maximum Avg Temperature (Degrees F)	72.95	75.66	75.4	76.77	80.53
Minimum Avg Temperature (Degrees F)	57.04	58.71	59.17	59.91	64.38
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.75	-	78.93	-	83.53
Minimum Avg Temperature (Degrees F)	59.59	-	63.24	-	68.29
WINTER					
Maximum Avg Temperature (Degrees F)	60.54	-	62.85	-	66.27
Minimum Avg Temperature (Degrees F)	44.46	-	46.06	-	49.81
SPRING					
Maximum Avg Temperature (Degrees F)	74.44	-	78.26	-	82.22
Minimum Avg Temperature (Degrees F)	57.07	-	60.45	-	64.98
SUMMER					
Maximum Avg Temperature (Degrees F)	85.94	-	90.65	-	95.3
Minimum Avg Temperature (Degrees F)	71.94	-	76.04	-	80.38

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Precipitation Projections

Forrest County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **45.22** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **46.96** inches which represents a **1.74** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **19.48** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **23.20** days which represents a **3.72** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **45.22** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **52.32** inches which represents a **7.09** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **19.48** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **19.31** days which represents a **-0.17** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	19.48	27.04	23.2	26.35	19.31
Annual Precipitation (Inches)	45.22	45.46	46.96	46.5	52.32
AUTUMN					
Daily Precipitation (Inches)	0.09	-	0.09	-	0.08
Maximum Daily Precipitation (Inches)	1.77	-	1.45	-	1.2
WINTER					
Daily Precipitation (Inches)	0.1	-	0.12	-	0.12
Maximum Daily Precipitation (Inches)	1.75	-	1.99	-	1.93
SPRING					
Daily Precipitation (Inches)	0.13	-	0.15	-	0.17
Maximum Daily Precipitation (Inches)	1.9	-	2.07	-	2.29
SUMMER					
Daily Precipitation (Inches)	0.19	-	0.18	-	0.19
Maximum Daily Precipitation (Inches)	1.83	-	1.72	-	1.77

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Wildfire Projections

Forrest County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the Southwest.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **5.46**. At mid-century under RCP 8.5, the summer FWI value will change to **7.59**, representing a change of **2.13** and a percentage change of **39.15%**. By end-of-century, the summer FWI value is projected to be **9.90**, representing a change of **4.44** and a percent change of **81.59%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **7.83**. At mid-century under RCP 8.5, the summer FWI value will change to **7.86**, representing a change of **0.04** and a percentage change of **0.49%**. By end-of-century, the autumn FWI value is projected to be **8.81**, representing a change of **0.98** and a percent change of **12.44%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	10.8	11.79	14.48
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	11.72	12.41	14.68
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.2	3.93	6.23
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.83	9.31	10.33
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	8.8	11.03	14.43
Fire Weather Index Class	-	-	-

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Wind Speed Projections

Forrest County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.73** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.65** mph which represents a **-0.07** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.76** mph which represents a **0.03** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.73** mph. Under RCP 4.5 the annual average wind speed at end-century is **5.88** mph which represents a **0.15** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.71** mph which represents a **-0.01** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.73	5.65	5.76	5.88	5.71

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Heat Index Projections

Forrest County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **92.42** (F). Under RCP 8.5, the average daily max heat index at mid-century is **100.67** (F), which represents a **8.25** (F) change from the baseline. The single highest heat index measured in Summer months is **104.17** (F) in the historical period and **122.17** (F) at mid-century (RCP8.5), representing an increase of **17.99** (F).

Historically, the number of summer days with a heat index above 95°F was **29.16** (F). By mid-century under RCP8.5, **64.16** summer days are projected to have a heat index above 95°F, representing an increase of **35.00**. Summer days with heat index above 115°F have been more rare, with **0.03** such days in the historical period and a projected **6.28** by mid-century (RCP8.5), representing a change of **6.24** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **92.42** (F). Under RCP 8.5, the average daily max heat index at end-century is **112.99** (F), which represents a **20.57** (F) change from the baseline. The single highest heat index measured in Summer months is **104.17** (F) in the historical period and **141.05** (F) at end-century (RCP8.5), representing an increase of **36.87** (F).

Historically, the number of summer days with a heat index above 95°F was **29.16** (F). By end-century under RCP8.5, **86.42** summer days are projected to have a heat index above 95°F, representing an increase of **57.26**. Summer days with heat index above 115°F have been more rare, with **0.03** such days in the historical period and a projected **28.73** by end-century (RCP8.5), representing a change of **28.70** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	92.42	100.67	112.99
Seasonal Max Heat Index (Degrees F)	104.17	122.17	141.05
Days with Max Heat Index Over 95 (Days)	29.16	64.16	86.42
Days with Max Heat Index Over 105 (Days)	2.59	17.91	60.37
Days with Max Heat Index Over 115 (Days)	0.03	6.28	28.73
Days with Max Heat Index Over 125 (Days)	0	4.66	18.72

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Temperature Projections

Greene County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is **57.21** (F). Under RCP 4.5 the annual minimum temperature at mid-century is **58.94** (F) which represents a **1.73** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is **59.43** (F) which represents a **2.22** (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is **73.00** (F). Under RCP 4.5 the annual maximum temperature at mid-century is **75.57** (F) which represents a **2.58** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is **75.35** (F) which represents a **2.35** (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is **57.21** (F). Under RCP 4.5 the annual minimum temperature at end-of-century is **59.94** (F) which represents a **2.74** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is **64.61** (F) which represents a **7.41** (F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is **76.65** (F) which represents a **3.65** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is **80.42** (F) which represents a **7.42** (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,121.03	-	4,354.67	-	-
Cooling Degree Days	2,306.11	-	3,032.69	-	-
Maximum Avg Temperature (Degrees F)	73	75.57	75.35	76.65	80.42
Minimum Avg Temperature (Degrees F)	57.21	58.94	59.43	59.94	64.61
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.76	-	78.82	-	83.4
Minimum Avg Temperature (Degrees F)	59.93	-	63.52	-	68.55
WINTER					
Maximum Avg Temperature (Degrees F)	60.73	-	62.91	-	66.27
Minimum Avg Temperature (Degrees F)	44.68	-	46.21	-	49.94
SPRING					
Maximum Avg Temperature (Degrees F)	74.46	-	78.28	-	82.2
Minimum Avg Temperature (Degrees F)	57.31	-	60.65	-	65.13
SUMMER					
Maximum Avg Temperature (Degrees F)	85.88	-	90.51	-	95.07
Minimum Avg Temperature (Degrees F)	72.03	-	76.14	-	80.41

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Precipitation Projections

Greene County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **45.59** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **48.75** inches which represents a **3.16** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **21.62** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **21.28** days which represents a **-0.33** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **45.59** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **53.75** inches which represents a **8.16** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **21.62** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **19.25** days which represents a **-2.36** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	21.62	26.37	21.28	27.35	19.25
Annual Precipitation (Inches)	45.59	47.02	48.75	48.3	53.75
AUTUMN					
Daily Precipitation (Inches)	0.08	-	0.1	-	0.09
Maximum Daily Precipitation (Inches)	1.38	-	1.68	-	1.28
WINTER					
Daily Precipitation (Inches)	0.1	-	0.12	-	0.13
Maximum Daily Precipitation (Inches)	1.78	-	1.89	-	2.07
SPRING					
Daily Precipitation (Inches)	0.13	-	0.15	-	0.16
Maximum Daily Precipitation (Inches)	2.05	-	2.1	-	2.14
SUMMER					
Daily Precipitation (Inches)	0.2	-	0.19	-	0.21
Maximum Daily Precipitation (Inches)	1.9	-	1.82	-	1.92

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Wildfire Projections

Greene County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the Southwest.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **5.11**. At mid-century under RCP 8.5, the summer FWI value will change to **6.82**, representing a change of **1.71** and a percentage change of **33.52%**. By end-of-century, the summer FWI value is projected to be **9.02**, representing a change of **3.91** and a percent change of **76.53%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **7.63**. At mid-century under RCP 8.5, the summer FWI value will change to **7.55**, representing a change of **-0.08** and a percentage change of **-1.09%**. By end-of-century, the autumn FWI value is projected to be **8.57**, representing a change of **0.94** and a percent change of **12.32%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	10.57	10.81	13.93
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	11.25	11.54	14.76
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.27	4.02	6.2
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.52	9.15	10.6
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	8.61	9.9	13.7
Fire Weather Index Class	-	-	-

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Wind Speed Projections

Greene County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.77** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.68** mph which represents a **-0.08** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.80** mph which represents a **0.03** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.77** mph. Under RCP 4.5 the annual average wind speed at end-century is **5.90** mph which represents a **0.14** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.74** mph which represents a **-0.03** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.77	5.68	5.8	5.9	5.74

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Heat Index Projections

Greene County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **92.52** (F). Under RCP 8.5, the average daily max heat index at mid-century is **100.93** (F), which represents a **8.41** (F) change from the baseline. The single highest heat index measured in Summer months is **104.61** (F) in the historical period and **122.16** (F) at mid-century (RCP8.5), representing an increase of **17.55** (F).

Historically, the number of summer days with a heat index above 95°F was **30.15** (F). By mid-century under RCP8.5, **64.83** summer days are projected to have a heat index above 95°F, representing an increase of **34.68**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **6.66** by mid-century (RCP8.5), representing a change of **6.63** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **92.52** (F). Under RCP 8.5, the average daily max heat index at end-century is **113.82** (F), which represents a **21.30** (F) change from the baseline. The single highest heat index measured in Summer months is **104.61** (F) in the historical period and **142.08** (F) at end-century (RCP8.5), representing an increase of **37.47** (F).

Historically, the number of summer days with a heat index above 95°F was **30.15** (F). By end-century under RCP8.5, **86.49** summer days are projected to have a heat index above 95°F, representing an increase of **56.34**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **31.05** by end-century (RCP8.5), representing a change of **31.03** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	92.52	100.93	113.82
Seasonal Max Heat Index (Degrees F)	104.61	122.16	142.08
Days with Max Heat Index Over 95 (Days)	30.15	64.83	86.49
Days with Max Heat Index Over 105 (Days)	2.75	18.84	61.64
Days with Max Heat Index Over 115 (Days)	0.02	6.66	31.05
Days with Max Heat Index Over 125 (Days)	0	4.75	20.41

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Temperature Projections

Jefferson Davis County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is **56.25** (F). Under RCP 4.5 the annual minimum temperature at mid-century is **57.92** (F) which represents a **1.66** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is **58.36** (F) which represents a **2.11** (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is **72.37** (F). Under RCP 4.5 the annual maximum temperature at mid-century is **75.16** (F) which represents a **2.79** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is **74.90** (F) which represents a **2.53** (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is **56.25** (F). Under RCP 4.5 the annual minimum temperature at end-of-century is **59.24** (F) which represents a **2.99** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is **63.65** (F) which represents a **7.40** (F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is **76.29** (F) which represents a **3.92** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is **80.08** (F) which represents a **7.71** (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,213.98	-	4,364.59	-	-
Cooling Degree Days	2,189.49	-	2,906.13	-	-
Maximum Avg Temperature (Degrees F)	72.37	75.16	74.9	76.29	80.08
Minimum Avg Temperature (Degrees F)	56.25	57.92	58.36	59.24	63.65
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.43	-	78.71	-	83.33
Minimum Avg Temperature (Degrees F)	58.92	-	62.79	-	67.76
WINTER					
Maximum Avg Temperature (Degrees F)	59.27	-	61.61	-	65.28
Minimum Avg Temperature (Degrees F)	43.46	-	45.18	-	49.1
SPRING					
Maximum Avg Temperature (Degrees F)	73.58	-	77.53	-	81.57
Minimum Avg Temperature (Degrees F)	56.26	-	59.69	-	64.29
SUMMER					
Maximum Avg Temperature (Degrees F)	85.65	-	90.56	-	95.2
Minimum Avg Temperature (Degrees F)	71	-	75.19	-	79.57

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Precipitation Projections

Jefferson Davis County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **42.82** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **45.20** inches which represents a **2.38** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **24.70** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **20.72** days which represents a **-3.98** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **42.82** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **49.73** inches which represents a **6.91** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **24.70** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **25.02** days which represents a **0.33** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	24.7	31.88	20.72	27.16	25.02
Annual Precipitation (Inches)	42.82	43.6	45.2	44.2	49.73
AUTUMN					
Daily Precipitation (Inches)	0.08	-	0.08	-	0.08
Maximum Daily Precipitation (Inches)	1.5	-	1.51	-	1.29
WINTER					
Daily Precipitation (Inches)	0.12	-	0.12	-	0.13
Maximum Daily Precipitation (Inches)	1.93	-	1.92	-	1.84
SPRING					
Daily Precipitation (Inches)	0.13	-	0.14	-	0.16
Maximum Daily Precipitation (Inches)	1.77	-	2.12	-	2.1
SUMMER					
Daily Precipitation (Inches)	0.18	-	0.17	-	0.18
Maximum Daily Precipitation (Inches)	1.69	-	1.73	-	1.85

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Wildfire Projections

Jefferson Davis County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the South-west.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **6.15**. At mid-century under RCP 8.5, the summer FWI value will change to **8.72**, representing a change of **2.57** and a percentage change of **41.79%**. By end-of-century, the summer FWI value is projected to be **10.83**, representing a change of **4.68** and a percent change of **76.15%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **9.18**. At mid-century under RCP 8.5, the summer FWI value will change to **9.13**, representing a change of **-0.06** and a percentage change of **-0.58%**. By end-of-century, the autumn FWI value is projected to be **10.11**, representing a change of **0.92** and a percent change of **10.11%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	12.24	13.9	16.38
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	13.68	14.48	16.22
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.27	3.87	6.32
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.43	9.34	9.73
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	9.53	13.01	15.58
Fire Weather Index Class	-	-	-

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Wind Speed Projections

Jefferson Davis County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.91** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.82** mph which represents a **-0.09** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.94** mph which represents a **0.04** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.91** mph. Under RCP 4.5 the annual average wind speed at end-century is **6.05** mph which represents a **0.14** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.88** mph which represents a **-0.03** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.91	5.82	5.94	6.05	5.88

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This report was generated on 10/2/2024 at 15:07:16

Heat Index Projections

Jefferson Davis County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **91.58** (F). Under RCP 8.5, the average daily max heat index at mid-century is **99.47** (F), which represents a **7.89** (F) change from the baseline. The single highest heat index measured in Summer months is **103.38** (F) in the historical period and **121.48** (F) at mid-century (RCP8.5), representing an increase of **18.11** (F).

Historically, the number of summer days with a heat index above 95°F was **26.05** (F). By mid-century under RCP8.5, **59.88** summer days are projected to have a heat index above 95°F, representing an increase of **33.83**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **5.40** by mid-century (RCP8.5), representing a change of **5.38** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **91.58** (F). Under RCP 8.5, the average daily max heat index at end-century is **110.46** (F), which represents a **18.88** (F) change from the baseline. The single highest heat index measured in Summer months is **103.38** (F) in the historical period and **138.22** (F) at end-century (RCP8.5), representing an increase of **34.85** (F).

Historically, the number of summer days with a heat index above 95°F was **26.05** (F). By end-century under RCP8.5, **84.57** summer days are projected to have a heat index above 95°F, representing an increase of **58.52**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **23.22** by end-century (RCP8.5), representing a change of **23.20** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	91.58	99.47	110.46
Seasonal Max Heat Index (Degrees F)	103.38	121.48	138.22
Days with Max Heat Index Over 95 (Days)	26.05	59.88	84.57
Days with Max Heat Index Over 105 (Days)	1.92	15.8	54.13
Days with Max Heat Index Over 115 (Days)	0.02	5.4	23.22
Days with Max Heat Index Over 125 (Days)	0	4.05	14.17

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Temperature Projections

Jones County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is **56.33** (F). Under RCP 4.5 the annual minimum temperature at mid-century is **57.95** (F) which represents a **1.62** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is **58.51** (F) which represents a **2.18** (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is **72.66** (F). Under RCP 4.5 the annual maximum temperature at mid-century is **75.41** (F) which represents a **2.74** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is **75.00** (F) which represents a **2.34** (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is **56.33** (F). Under RCP 4.5 the annual minimum temperature at end-of-century is **59.24** (F) which represents a **2.91** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is **63.81** (F) which represents a **7.48** (F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is **76.56** (F) which represents a **3.90** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is **80.22** (F) which represents a **7.55** (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,209.82	-	4,391.65	-	-
Cooling Degree Days	2,228.01	-	2,943.96	-	-
Maximum Avg Temperature (Degrees F)	72.66	75.41	75	76.56	80.22
Minimum Avg Temperature (Degrees F)	56.33	57.95	58.51	59.24	63.81
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.57	-	78.72	-	83.38
Minimum Avg Temperature (Degrees F)	58.94	-	62.7	-	67.74
WINTER					
Maximum Avg Temperature (Degrees F)	59.6	-	61.84	-	65.46
Minimum Avg Temperature (Degrees F)	43.59	-	45.17	-	49.01
SPRING					
Maximum Avg Temperature (Degrees F)	73.95	-	77.83	-	81.88
Minimum Avg Temperature (Degrees F)	56.34	-	59.72	-	64.31
SUMMER					
Maximum Avg Temperature (Degrees F)	86.02	-	90.81	-	95.47
Minimum Avg Temperature (Degrees F)	71.34	-	75.54	-	79.98

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Precipitation Projections

Jones County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **45.19** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **47.83** inches which represents a **2.64** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **22.17** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **21.91** days which represents a **-0.26** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **45.19** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **52.84** inches which represents a **7.65** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **22.17** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **22.83** days which represents a **0.66** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	22.17	29.42	21.91	27.82	22.83
Annual Precipitation (Inches)	45.19	45.98	47.83	46.98	52.84
AUTUMN					
Daily Precipitation (Inches)	0.08	-	0.09	-	0.08
Maximum Daily Precipitation (Inches)	1.57	-	1.66	-	1.31
WINTER					
Daily Precipitation (Inches)	0.11	-	0.12	-	0.13
Maximum Daily Precipitation (Inches)	1.92	-	1.91	-	2.02
SPRING					
Daily Precipitation (Inches)	0.13	-	0.14	-	0.16
Maximum Daily Precipitation (Inches)	1.87	-	1.79	-	2.18
SUMMER					
Daily Precipitation (Inches)	0.19	-	0.18	-	0.2
Maximum Daily Precipitation (Inches)	1.75	-	1.93	-	2.01

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Wildfire Projections

Jones County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the Southwest.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **5.72**. At mid-century under RCP 8.5, the summer FWI value will change to **7.93**, representing a change of **2.20** and a percentage change of **38.43%**. By end-of-century, the summer FWI value is projected to be **10.02**, representing a change of **4.30** and a percent change of **75.06%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **8.46**. At mid-century under RCP 8.5, the summer FWI value will change to **8.48**, representing a change of **0.01** and a percentage change of **0.16%**. By end-of-century, the autumn FWI value is projected to be **9.64**, representing a change of **1.18** and a percent change of **13.98%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	11.56	12.53	14.49
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	12.98	13.11	16.24
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.17	4.13	6.25
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.74	9.33	9.88
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	9.37	11.46	14.68
Fire Weather Index Class	-	-	-

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Wind Speed Projections

Jones County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.68** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.60** mph which represents a **-0.08** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.72** mph which represents a **0.04** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.68** mph. Under RCP 4.5 the annual average wind speed at end-century is **5.82** mph which represents a **0.14** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.67** mph which represents a **-0.01** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.68	5.6	5.72	5.82	5.67

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Heat Index Projections

Jones County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **92.20** (F). Under RCP 8.5, the average daily max heat index at mid-century is **100.24** (F), which represents a **8.04** (F) change from the baseline. The single highest heat index measured in Summer months is **104.59** (F) in the historical period and **123.30** (F) at mid-century (RCP8.5), representing an increase of **18.71** (F).

Historically, the number of summer days with a heat index above 95°F was **28.95** (F). By mid-century under RCP8.5, **62.57** summer days are projected to have a heat index above 95°F, representing an increase of **33.62**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **5.96** by mid-century (RCP8.5), representing a change of **5.94** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **92.20** (F). Under RCP 8.5, the average daily max heat index at end-century is **111.90** (F), which represents a **19.70** (F) change from the baseline. The single highest heat index measured in Summer months is **104.59** (F) in the historical period and **140.80** (F) at end-century (RCP8.5), representing an increase of **36.20** (F).

Historically, the number of summer days with a heat index above 95°F was **28.95** (F). By end-century under RCP8.5, **85.23** summer days are projected to have a heat index above 95°F, representing an increase of **56.28**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **26.52** by end-century (RCP8.5), representing a change of **26.50** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	92.2	100.24	111.9
Seasonal Max Heat Index (Degrees F)	104.59	123.3	140.8
Days with Max Heat Index Over 95 (Days)	28.95	62.57	85.23
Days with Max Heat Index Over 105 (Days)	2.64	17.18	58
Days with Max Heat Index Over 115 (Days)	0.02	5.96	26.52
Days with Max Heat Index Over 125 (Days)	0	4.4	16.42

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Temperature Projections

Marion County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is **56.86** (F). Under RCP 4.5 the annual minimum temperature at mid-century is **58.56** (F) which represents a **1.70** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is **59.01** (F) which represents a **2.16** (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is **73.01** (F). Under RCP 4.5 the annual maximum temperature at mid-century is **75.74** (F) which represents a **2.73** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is **75.54** (F) which represents a **2.53** (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is **56.86** (F). Under RCP 4.5 the annual minimum temperature at end-of-century is **59.81** (F) which represents a **2.95**(F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is **64.18**(F) which represents a **7.32**(F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is **76.93** (F) which represents a **3.92** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is **80.69** (F) which represents a **7.68** (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,181.14	-	4,360.32	-	-
Cooling Degree Days	2,291.3	-	3,015.14	-	-
Maximum Avg Temperature (Degrees F)	73.01	75.74	75.54	76.93	80.69
Minimum Avg Temperature (Degrees F)	56.86	58.56	59.01	59.81	64.18
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.97	-	79.24	-	83.83
Minimum Avg Temperature (Degrees F)	59.43	-	63.21	-	68.25
WINTER					
Maximum Avg Temperature (Degrees F)	60.37	-	62.77	-	66.29
Minimum Avg Temperature (Degrees F)	44.32	-	46	-	49.82
SPRING					
Maximum Avg Temperature (Degrees F)	74.37	-	78.24	-	82.21
Minimum Avg Temperature (Degrees F)	56.82	-	60.27	-	64.85
SUMMER					
Maximum Avg Temperature (Degrees F)	85.94	-	90.76	-	95.41
Minimum Avg Temperature (Degrees F)	71.56	-	75.67	-	80.04

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Precipitation Projections

Marion County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **44.71** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **47.21** inches which represents a **2.50** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **22.58** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **27.86** days which represents a **5.28** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **44.71** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **51.83** inches which represents a **7.11** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **22.58** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **24.74** days which represents a **2.16** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	22.58	27.55	27.86	30.64	24.74
Annual Precipitation (Inches)	44.71	45.83	47.21	46.23	51.83
AUTUMN					
Daily Precipitation (Inches)	0.08	-	0.09	-	0.08
Maximum Daily Precipitation (Inches)	1.43	-	1.52	-	1.29
WINTER					
Daily Precipitation (Inches)	0.11	-	0.12	-	0.13
Maximum Daily Precipitation (Inches)	1.79	-	2.03	-	2.03
SPRING					
Daily Precipitation (Inches)	0.13	-	0.15	-	0.16
Maximum Daily Precipitation (Inches)	1.74	-	2.11	-	2.24
SUMMER					
Daily Precipitation (Inches)	0.18	-	0.17	-	0.18
Maximum Daily Precipitation (Inches)	1.69	-	1.74	-	1.92

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Wildfire Projections

Marion County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the Southwest.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **5.67**. At mid-century under RCP 8.5, the summer FWI value will change to **8.30**, representing a change of **2.63** and a percentage change of **46.39%**. By end-of-century, the summer FWI value is projected to be **10.73**, representing a change of **5.06** and a percent change of **89.37%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **8.60**. At mid-century under RCP 8.5, the summer FWI value will change to **8.53**, representing a change of **-0.07** and a percentage change of **-0.80%**. By end-of-century, the autumn FWI value is projected to be **9.26**, representing a change of **0.66** and a percent change of **7.65%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	11.4	13.04	15.47
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	13.36	13.7	15.33
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.25	3.98	6.27
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.15	9.2	9.94
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	8.98	12.34	15.62
Fire Weather Index Class	-	-	-

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This report was generated on 10/2/2024 at 15:10:56



Wind Speed Projections

Marion County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.73** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.64** mph which represents a **-0.08** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.76** mph which represents a **0.03** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.73** mph. Under RCP 4.5 the annual average wind speed at end-century is **5.89** mph which represents a **0.16** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.71** mph which represents a **-0.02** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.73	5.64	5.76	5.89	5.71

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This report was generated on 10/2/2024 at 15:11:17

Heat Index Projections

Marion County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **92.34** (F). Under RCP 8.5, the average daily max heat index at mid-century is **100.54** (F), which represents a **8.20** (F) change from the baseline. The single highest heat index measured in Summer months is **103.98** (F) in the historical period and **123.27** (F) at mid-century (RCP8.5), representing an increase of **19.29** (F).

Historically, the number of summer days with a heat index above 95°F was **28.86** (F). By mid-century under RCP8.5, **63.60** summer days are projected to have a heat index above 95°F, representing an increase of **34.74**. Summer days with heat index above 115°F have been more rare, with **0.03** such days in the historical period and a projected **6.22** by mid-century (RCP8.5), representing a change of **6.19** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **92.34** (F). Under RCP 8.5, the average daily max heat index at end-century is **112.69** (F), which represents a **20.35** (F) change from the baseline. The single highest heat index measured in Summer months is **103.98** (F) in the historical period and **139.88** (F) at end-century (RCP8.5), representing an increase of **35.90** (F).

Historically, the number of summer days with a heat index above 95°F was **28.86** (F). By end-century under RCP8.5, **86.17** summer days are projected to have a heat index above 95°F, representing an increase of **57.31**. Summer days with heat index above 115°F have been more rare, with **0.03** such days in the historical period and a projected **28.01** by end-century (RCP8.5), representing a change of **27.98** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	92.34	100.54	112.69
Seasonal Max Heat Index (Degrees F)	103.98	123.27	139.88
Days with Max Heat Index Over 95 (Days)	28.86	63.6	86.17
Days with Max Heat Index Over 105 (Days)	2.7	17.93	60.02
Days with Max Heat Index Over 115 (Days)	0.03	6.22	28.01
Days with Max Heat Index Over 125 (Days)	0	4.52	18.3

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This report was generated on 10/2/2024 at 15:11:36



Temperature Projections

Perry County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is 57.21 (F). Under RCP 4.5 the annual minimum temperature at mid-century is 58.91 (F) which represents a 1.70 (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is 59.40 (F) which represents a 2.19 (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is 73.08 (F). Under RCP 4.5 the annual maximum temperature at mid-century is 75.74 (F) which represents a 2.66 (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is 75.49 (F) which represents a 2.41 (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is 57.21 (F). Under RCP 4.5 the annual minimum temperature at end-of-century is 60.02 (F) which represents a 2.82(F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is 64.58(F) which represents a 7.38(F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is 76.80 (F) which represents a 3.72 (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is 80.59 (F) which represents a 7.51 (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,141.32	-	4,363.36	-	-
Cooling Degree Days	2,322.43	-	3,047.39	-	-
Maximum Avg Temperature (Degrees F)	73.08	75.74	75.49	76.8	80.59
Minimum Avg Temperature (Degrees F)	57.21	58.91	59.4	60.02	64.58
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.84	-	78.97	-	83.57
Minimum Avg Temperature (Degrees F)	59.85	-	63.46	-	68.51
WINTER					
Maximum Avg Temperature (Degrees F)	60.77	-	63.03	-	66.41
Minimum Avg Temperature (Degrees F)	44.68	-	46.23	-	49.96
SPRING					
Maximum Avg Temperature (Degrees F)	74.55	-	78.35	-	82.3
Minimum Avg Temperature (Degrees F)	57.26	-	60.62	-	65.12
SUMMER					
Maximum Avg Temperature (Degrees F)	86	-	90.68	-	95.3
Minimum Avg Temperature (Degrees F)	72.09	-	76.18	-	80.5

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Precipitation Projections

Perry County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **46.36** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **48.26** inches which represents a **1.91** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **20.46** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **22.94** days which represents a **2.49** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **46.36** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **53.82** inches which represents a **7.46** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **20.46** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **19.66** days which represents a **-0.80** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	20.46	26.68	22.94	26.2	19.66
Annual Precipitation (Inches)	46.36	47.03	48.26	47.65	53.82
AUTUMN					
Daily Precipitation (Inches)	0.09	-	0.09	-	0.09
Maximum Daily Precipitation (Inches)	1.5	-	1.56	-	1.25
WINTER					
Daily Precipitation (Inches)	0.1	-	0.12	-	0.13
Maximum Daily Precipitation (Inches)	1.73	-	2.02	-	1.97
SPRING					
Daily Precipitation (Inches)	0.14	-	0.15	-	0.16
Maximum Daily Precipitation (Inches)	2.02	-	2.13	-	2.1
SUMMER					
Daily Precipitation (Inches)	0.2	-	0.19	-	0.2
Maximum Daily Precipitation (Inches)	2	-	1.74	-	1.84

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Wildfire Projections

Perry County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the Southwest.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **5.18**. At mid-century under RCP 8.5, the summer FWI value will change to **7.20**, representing a change of **2.02** and a percentage change of **38.97%**. By end-of-century, the summer FWI value is projected to be **9.44**, representing a change of **4.26** and a percent change of **82.36%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **7.56**. At mid-century under RCP 8.5, the summer FWI value will change to **7.62**, representing a change of **0.06** and a percentage change of **0.79%**. By end-of-century, the autumn FWI value is projected to be **8.56**, representing a change of **1.00** and a percent change of **13.17%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	10.64	11.41	14.06
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	11.27	11.86	14.66
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.19	3.83	6.04
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.94	9.11	10.41
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	8.64	10.55	14.31
Fire Weather Index Class	-	-	-

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This report was generated on 10/2/2024 at 15:12:36



Wind Speed Projections

Perry County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.69** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.61** mph which represents a **-0.08** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.72** mph which represents a **0.03** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.69** mph. Under RCP 4.5 the annual average wind speed at end-century is **5.83** mph which represents a **0.15** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.66** mph which represents a **-0.02** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.69	5.61	5.72	5.83	5.66

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Heat Index Projections

Perry County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **92.65** (F). Under RCP 8.5, the average daily max heat index at mid-century is **101.09** (F), which represents a **8.44** (F) change from the baseline. The single highest heat index measured in Summer months is **104.47** (F) in the historical period and **122.38** (F) at mid-century (RCP8.5), representing an increase of **17.91** (F).

Historically, the number of summer days with a heat index above 95°F was **30.43** (F). By mid-century under RCP8.5, **65.47** summer days are projected to have a heat index above 95°F, representing an increase of **35.04**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **6.84** by mid-century (RCP8.5), representing a change of **6.82** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **92.65** (F). Under RCP 8.5, the average daily max heat index at end-century is **113.81** (F), which represents a **21.16** (F) change from the baseline. The single highest heat index measured in Summer months is **104.47** (F) in the historical period and **141.71** (F) at end-century (RCP8.5), representing an increase of **37.24** (F).

Historically, the number of summer days with a heat index above 95°F was **30.43** (F). By end-century under RCP8.5, **86.61** summer days are projected to have a heat index above 95°F, representing an increase of **56.18**. Summer days with heat index above 115°F have been more rare, with **0.02** such days in the historical period and a projected **30.82** by end-century (RCP8.5), representing a change of **30.80** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	92.65	101.09	113.81
Seasonal Max Heat Index (Degrees F)	104.47	122.38	141.71
Days with Max Heat Index Over 95 (Days)	30.43	65.47	86.61
Days with Max Heat Index Over 105 (Days)	2.95	19.11	62.23
Days with Max Heat Index Over 115 (Days)	0.02	6.84	30.82
Days with Max Heat Index Over 125 (Days)	0	4.92	20.21

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Temperature Projections

Wayne County, Mississippi



Info

Temperature is the measure of the average heat or thermal energy in the air at the Earth's surface.

Degree Days: Degree days measure how cold or warm a location is by comparing the daily average temperature to a reference temperature, usually 65°F (18.33°C).

For ClimRR, we used each day's maximum temperature (the daily high) and minimum temperature (the daily low) to estimate the daily average temperature. This daily average was used to calculate that day's HDD (if the average temperature was below 65°F) or CDD (if the average temperature was above 65°F). Daily HDD or CDD were aggregated to produce seasonal averages or annual averages, using ensemble means for each climate scenario.

Mid-Century Temperature Analysis: The historical annual minimum temperature is **56.30** (F). Under RCP 4.5 the annual minimum temperature at mid-century is **57.98** (F) which represents a **1.68** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at mid-century is **58.54** (F) which represents a **2.24** (F) change from the baseline.

Historical Temperature Analysis: The historical annual maximum temperature is **72.46** (F). Under RCP 4.5 the annual maximum temperature at mid-century is **75.07** (F) which represents a **2.61** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at mid-century is **74.71** (F) which represents a **2.25** (F) change from the baseline.

End-of-Century Temperature Analysis: The historical annual minimum temperature is **56.30** (F). Under RCP 4.5 the annual minimum temperature at end-of-century is **59.15** (F) which represents a **2.85** (F) change from the baseline. Under RCP 8.5 the annual minimum temperature at end-of-century is **63.80** (F) which represents a **7.50** (F) change from the baseline.

Under RCP 4.5 the annual maximum temperature at end-of-century is **76.27** (F) which represents a **3.81** (F) change from the baseline. Under RCP 8.5 the annual maximum temperature at end-of-century is **79.88** (F) which represents a **7.42** (F) change from the baseline.

Climate Stats

Temperature	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Heating Degree Days	4,178.77	-	4,368.96	-	-
Cooling Degree Days	2,191.57	-	2,903.3	-	-
Maximum Avg Temperature (Degrees F)	72.46	75.07	74.71	76.27	79.88
Minimum Avg Temperature (Degrees F)	56.3	57.98	58.54	59.15	63.8
AUTUMN					
Maximum Avg Temperature (Degrees F)	74.25	-	78.32	-	82.97
Minimum Avg Temperature (Degrees F)	58.88	-	62.58	-	67.61
WINTER					
Maximum Avg Temperature (Degrees F)	59.49	-	61.66	-	65.21
Minimum Avg Temperature (Degrees F)	43.53	-	45.08	-	48.9
SPRING					
Maximum Avg Temperature (Degrees F)	73.77	-	77.62	-	81.63
Minimum Avg Temperature (Degrees F)	56.37	-	59.7	-	64.29
SUMMER					
Maximum Avg Temperature (Degrees F)	85.79	-	90.49	-	95.09
Minimum Avg Temperature (Degrees F)	71.37	-	75.58	-	79.95

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Precipitation Projections

Wayne County, Mississippi



Info

Precipitation is any liquid or frozen water that forms in the atmosphere and falls back to the Earth. All values are calculated as 24-hour periods.

Mid-Century Precipitation Analysis: The historical annual total precipitation is **44.45** inches. Under RCP 8.5 the annual minimum precipitation at mid-century is **47.58** inches which represents a **3.13** inch change from the baseline.

Mid-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **20.89** days. Under RCP 8.5 the longest stretch of days without precipitation at mid-century is **25.17** days which represents a **4.27** day change from the baseline.

End-Century Precipitation Analysis: The historical annual total precipitation is **44.45** inches. Under RCP 8.5 the annual minimum precipitation at end-century is **52.37** inches which represents a **7.92** inch change from the baseline.

End-Century Precipitation Analysis, Days Without Measurable Precipitation: The historical longest consecutive number of days without precipitation **20.89** days. Under RCP 8.5 the longest stretch of days without precipitation at end-century is **19.59** days which represents a **-1.30** day change from the baseline.

Climate Stats

Precipitation	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Days Without Precipitation (Days)	20.89	29.49	25.17	27.62	19.59
Annual Precipitation (Inches)	44.45	45.23	47.58	46.63	52.37
AUTUMN					
Daily Precipitation (Inches)	0.08	-	0.09	-	0.08
Maximum Daily Precipitation (Inches)	1.44	-	1.63	-	1.34
WINTER					
Daily Precipitation (Inches)	0.11	-	0.12	-	0.13
Maximum Daily Precipitation (Inches)	1.71	-	1.84	-	1.95
SPRING					
Daily Precipitation (Inches)	0.13	-	0.14	-	0.16
Maximum Daily Precipitation (Inches)	1.91	-	1.9	-	2.15
SUMMER					
Daily Precipitation (Inches)	0.19	-	0.18	-	0.2
Maximum Daily Precipitation (Inches)	1.87	-	1.92	-	2.08

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Wildfire Projections

Wayne County, Mississippi



Info

The Fire Weather Index (FWI) estimates weather-related wildfire danger using daily readings of weather conditions that influence the spread of wildfires, including the dryness of fuel sources and high winds. Higher FWI values represent greater danger of wildfires due to weather conditions; the index does not account for land cover or potential ignition sources. FWI values signal different levels of relative fire danger across regions. Values above 25 typically represent a high level of danger in the northern regions, whereas values above 40-45 often represent a high level of danger in the Southwest.

Relative Fire Danger: FWI classes show fire weather-related danger relative to nationwide patterns and are based on 95th percentile FWI values. This location's historical FWI class is and its mid-century RCP8.5 class is . By end-of-century, the FWI class will be .

Summer FWI Analysis: The historical average FWI value in summer is **5.65**. At mid-century under RCP 8.5, the summer FWI value will change to **7.46**, representing a change of **1.81** and a percentage change of **32.11%**. By end-of-century, the summer FWI value is projected to be **9.53**, representing a change of **3.88** and a percent change of **68.89%**.

Autumn FWI Analysis: The historical average FWI value in autumn is **8.03**. At mid-century under RCP 8.5, the summer FWI value will change to **8.07**, representing a change of **0.04** and a percentage change of **0.48%**. By end-of-century, the autumn FWI value is projected to be **9.51**, representing a change of **1.48** and a percent change of **18.40%**.

Climate Stats

Wildfire	Historical	Mid-Century	End-of-Century
ANNUAL			
Fire Weather Index	11.23	11.83	14.53
Fire Weather Index Class	-	-	-
AUTUMN			
Fire Weather Index	11.92	12.02	16.37
Fire Weather Index Class	-	-	-
WINTER			
Fire Weather Index	4.16	4.22	5.94
Fire Weather Index Class	-	-	-
SPRING			
Fire Weather Index	9.91	9.19	10.08
Fire Weather Index Class	-	-	-
SUMMER			
Fire Weather Index	9.78	10.8	14.24
Fire Weather Index Class	-	-	-

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Wind Speed Projections

Wayne County, Mississippi



Info

Wind is the movement of air across Earth's surface caused by differences in atmospheric pressure. All values are calculated as 24-hour periods.

Mid-Century Wind Analysis: The historical annual average wind speed is **5.78** mph. Under RCP 4.5 the annual average wind speed at mid-century is **5.70** mph which represents a **-0.08** mph change from the baseline. Under RCP 8.5 the annual average wind speed at mid-century is **5.82** mph which represents a **0.04** mph change from the baseline.

End-Century Wind Analysis: The historical annual average wind speed is **5.78** mph. Under RCP 4.5 the annual average wind speed at end-century is **5.92** mph which represents a **0.14** mph change from the baseline. Under RCP 8.5 the annual average wind speed at end-century is **5.76** mph which represents a **-0.02** mph change from the baseline.

Climate Stats

Wind_Speed	Hist.	Mid-Century		End-Of-Century	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
ANNUAL					
Wind Speed (Mph)	5.78	5.7	5.82	5.92	5.76

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Heat Index Projections

Wayne County, Mississippi



Info

Heat index is a measure of how hot weather feels to humans when factoring in both relative humidity and the actual temperature. Heat index is an important gauge of heat-related risks. Readings above 105°F typically represent dangerous conditions, with readings above 125°F being extremely dangerous to humans.

Since extreme heat is the concern of this report, all values represent those calculated for the Summer months (June, July, August).

Mid-Century Heat Analysis The average daily maximum heat index in summer over the historical period is **91.95** (F). Under RCP 8.5, the average daily max heat index at mid-century is **99.97** (F), which represents a **8.02** (F) change from the baseline. The single highest heat index measured in Summer months is **104.42** (F) in the historical period and **121.97** (F) at mid-century (RCP8.5), representing an increase of **17.54** (F).

Historically, the number of summer days with a heat index above 95°F was **28.01** (F). By mid-century under RCP8.5, **61.48** summer days are projected to have a heat index above 95°F, representing an increase of **33.47**. Summer days with heat index above 115°F have been more rare, with **0.01** such days in the historical period and a projected **5.78** by mid-century (RCP8.5), representing a change of **5.77** days.

End-Century Heat Analysis: The average daily maximum heat index in summer over the historical period is **91.95** (F). Under RCP 8.5, the average daily max heat index at end-century is **111.81** (F), which represents a **19.86** (F) change from the baseline. The single highest heat index measured in Summer months is **104.42** (F) in the historical period and **140.56** (F) at end-century (RCP8.5), representing an increase of **36.14** (F).

Historically, the number of summer days with a heat index above 95°F was **28.01** (F). By end-century under RCP8.5, **84.92** summer days are projected to have a heat index above 95°F, representing an increase of **56.91**. Summer days with heat index above 115°F have been more rare, with **0.01** such days in the historical period and a projected **26.47** by end-century (RCP8.5), representing a change of **26.46** days.

Climate Stats

Heat_Index	Historical	Mid-Century	End-of-Century
SUMMER			
Daily Max Heat Index (Degrees F)	91.95	99.97	111.81
Seasonal Max Heat Index (Degrees F)	104.42	121.97	140.56
Days with Max Heat Index Over 95 (Days)	28.01	61.48	84.92
Days with Max Heat Index Over 105 (Days)	2.1	16.71	57.32
Days with Max Heat Index Over 115 (Days)	0.01	5.78	26.47
Days with Max Heat Index Over 125 (Days)	0	4.26	16.43

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URBAN DEVELOPMENT PLANNING DIVISION

MEMORANDUM

To: Hattiesburg City Council and Citizens of Hattiesburg
From: Nathan Satcher, CFM, Senior Planner, City of Hattiesburg
Date: March 18, 2025
Subject: Addition of Appendices to the MEMA District 8 Hazard Mitigation Plan (2025-2030)

Dear Members of the City Council and Citizens of Hattiesburg,

In conjunction with the adoption of the MEMA District 8 Hazard Mitigation Plan (2025-2030), the City of Hattiesburg is submitting additional appendices specific to our jurisdiction. These appendices provide supplementary documentation that enhances the effectiveness of our mitigation strategies and ensures alignment with local planning efforts. The added materials include:

1. **Meeting Agendas and Minutes** – Documentation from the City of Hattiesburg Hazard Mitigation/Floodplain Management Planning Committee meetings to demonstrate ongoing local engagement and planning efforts.
2. **Repetitive Loss Area Map and Additional Flood Hazard Maps** – Visual representations of areas subject to recurrent flooding and other flood-prone zones within the City of Hattiesburg. These maps support our floodplain management strategies and Community Rating System (CRS) compliance.
3. **The Forrest County Comprehensive Emergency Management Plan** – A reference document outlining countywide emergency management strategies, ensuring coordination between municipal and regional hazard mitigation efforts.

These appendices serve to provide a comprehensive assessment of Hattiesburg's flood risks, mitigation efforts, and emergency preparedness. Integrating this information with the MEMA District 8 Hazard Mitigation Plan will strengthen our ability to reduce flood risks and enhance community resilience.

Please include these documents as official appendices to the final adopted plan. Please contact our department with any additional questions at 601-545-4599 or by email at planning@hattiesburgms.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Nathan Satcher".

Nathan Satcher, CFM

Senior Planner

Planning Division, City of Hattiesburg

City of Hattiesburg Planning Committee for the

March 10, 2025, 10:00 AM

Engineering Conference Room

Meeting Agenda

212 W Front Street

I. Business Meeting

1. Introductions
2. Review and approval of the Hazard Mitigation Planning Committee meeting's agenda
3. Overview of Current Hazard Mitigation Plan Floodplain Management
 - a. 2025-2030 Hazard Mitigation Plan / Floodplain Management Plan
 - b. Previous HMP / FMP adoption and maintenance for the Community Rating System
4. Flood Hazard Assessment and Risk Analysis
 - a. Special Flood Hazard Areas
 - b. Other Flood-prone areas (wetlands, low-lying areas, flash flood-prone areas, historically flooded areas)
 - c. Repetitive Loss Areas and Analysis (RLAA)
 - d. Discussion and assessment of all natural hazards
5. Public Involvement and Outreach
 - a. HMP / FMP Work Session for public input and plan adoption timeline
 - b. Consideration of Public Planning Committee for CRS Credit
6. Mitigation Strategies and Prioritization
 - a. Higher regulatory standards – Flood Damage Prevention Ordinance, LDC, Building Codes, etc.
 - b. Natural Resource Protection – Natural Floodplain Functions Plan (NFP)
 - c. Emergency Services
 - d. Public Information
7. Integration with Other Local Plans
8. Plan Maintenance, Evaluation, and Documentation
 - a. Annual Progress Reporting and Five-Year Plan Updates.
 - b. Additional Appendices for City of Hattiesburg
 - i. Hattiesburg Flood Maps, Repetitive Loss Areas, Wetlands Map, Zoning Map
 - ii. Documentation of meetings, including minutes
9. Open Discussion / Q & A
10. Action Items and Next Meeting
 - a. Adoption of plan
 - b. Setting of next meeting
 - c. Public planning committee

II. Adjournment



URBAN DEVELOPMENT PLANNING DIVISION

City of Hattiesburg Planning Committee for the District 8 Hazard Mitigation Plan / Floodplain Management Plan for 2025-2030

March 10, 2025, 10:00 AM
Engineering Conference Room
Please sign in below:

No.	Name	DEPARTMENT / TITLE	Email	Phone
1	Meridian McDaniel	Planning - Planner I	mmcdaniel@hattiesburgms.com	601-554-1019
2	John Forster	Chief Communications Officer	jforster@hattiesburgms.com	601-447-5450
3	Ann Jones	Chief Administrative Officer	ajones@hattiesburgms.com	601-545-4503
4	Nathan Sitcher	Planning - Senior Planner, Floodplain Manager	nsitcher@hattiesburgms.com	601-545-4594
5	Wiley Grisham	Director - Urban Development	wgrisham@hattiesburgms.com	601-466-8166
6	MARYBETH BERGIN	DIRECTOR OF TRANSPORTATION & ENGINEERING	mbergin@hattiesburgms.com	601-545-4540
7	Kevin Bates	Building Official	kbates@hattiesburgms.com	601-545-4556
8	Glen Moore	TECH - EMA Director	glen@foirteco.com	601-606-9185
9				
10				
11				
12				
13				
14				
15				

**City of Hattiesburg Planning Committee for the District 8 Hazard Mitigation Plan/Floodplain
Management Plan for 2025-2030**

March 10, 2025, 10:00 am
Engineering Conference room
212 W Front Street

Meeting Facilitator: Nathan Satcher, CFM, Senior Planner, Planning Division for City of Hattiesburg

Attendees: Ann Jones, CAO, City of Hattiesburg
Marybeth Bergin, PE, Director of Transportation and Engineering, City of Hattiesburg
John Arender, Chief Communications Officer, City of Hattiesburg
Wiley Quinn, Director of Urban Development, City of Hattiesburg
Kevin Bates, Building Office, City of Hattiesburg
Meridian McDaniel, Planner I, City of Hattiesburg
Glen Moore, Emergency Management Director, Forrest County

Purpose Statement: The purpose of this meeting was to discuss and review the City of Hattiesburg's 2025-2030 Hazard Mitigation Plan (HMP) and Floodplain Management Plan (FMP), assess flood hazard risks, and evaluate potential mitigation strategies for CRS credit compliance.

- I. Business Meeting
 - a. Introductions
 - i. Present at meeting:
 1. Ann Jones, Chief Administrative Officer
 2. Wiley Quinn, Director of Urban Development
 3. Mary Beth Bergin, Director of Transportation and Engineering
 4. John Arender, Chief Communications Officer
 5. Nathan Satcher, Senior Planner and CRS Coordinator
 6. Meridian McDaniel, Planner I
 7. Glen Moore, TEMD- EMA Director
 8. Kevin Bates, Building Official
 - b. Review and approval of the Hazard Mitigation Planning Committee meeting's agenda
 - i. Motion to approve the March Meeting agenda by Ann Jones and seconded by Mary Beth Bergin. All present were in favor.
 - c. Overview of Current Hazard Mitigation Floodplain Management
 - i. 2025-2030 Hazard Mitigation Plan/Floodplain Management Plan
 - ii. Previous HMP/FMP adoption and maintenance for the Community Rating System
 - d. Flood Hazard Assessment and Risk Analysis
 - i. Special Flood Hazard Areas
 - ii. Other flood-prone areas (wetlands, low-lying areas, flash flood-prone areas, historically flooded areas)
 - iii. Repetitive Loss Areas and Analysis (RLAA)
 1. Repetitive Loss properties reviewed this past year and requested FEMA to remove requested non-city and demoed repetitive loss properties. Still waiting to hear back from FEMA on removal status.
 - a. City has bought out 5 properties in the last 8 years.
 2. ~21 structures are currently repetitive loss
 3. Potential for in-house repetitive loss area analysis to add to the plan
 - a. Would help generate CRS points (140 points)

- b. Discussion of subbing this analysis out—Nathan Satcher to inquire about quotes.
 - iv. Discussion and Assessment of all natural hazards
 - 1. High Risk Dams- as labeled by DEE
 - a. Dam location in Innswood – 40th Place Dam
 - b. Dam location near Hattiesburg Country Club
 - c. Plans housed with Glen Moore
 - i. High risk dams in county can be accessed on MDEQ website
 - 1. Dam safety division
 - d. Discussion of Hub Alerts and saving particular areas and geofences
 - i. This needs to be updated into the action plans
 - e. Public Involvement and Outreach
 - i. HMP/FMP Work Session for public input and plan adoption timeline
 - ii. Consideration of Public Planning Committee for CRS Credit
 - 1. Not required but can create opportunity for more CRS points
 - 2. 50% would need to be members of the public (not staff)
 - f. Mitigation Strategies and Prioritization
 - i. Higher regulatory standards- Flood Damage Prevention Ordinance, LDC, Building Codes, Etc....
 - 1. Next meeting topic to go in depth on higher regulatory standards
 - ii. Natural Resource Protection—Natural Floodplain Functions Plan (NFP)
 - 1. Additional points opportunity for CRS. May require environmentalist or biologist. Would be good to have on file if grant money comes available.
 - a. Duncan Lake example—some portions considered parks but other is unused land. Specific flora special to the flood area.
 - iii. Emergency Services
 - 1. Documenting plans of action
 - a. Reference to County Emergency Management Plan (CEMP)
 - i. City adopted this in 2022/2023.
 - ii. Will add as an appendix to the HMP.
 - iv. Public Information
 - g. Integration with Other Local Plans
 - i. CMP, City of Hattiesburg Comprehensive Plan, and Land Development Code.
 - h. Plan Maintenance, Evaluation, and Documentation
 - i. Annual Progress Reporting and Five-Year Plan Updates
 - 1. Decision of quarterly meetings.
 - ii. Additional Appendices for City of Hattiesburg
 - 1. Hattiesburg Flood Maps, Repetitive Loss Areas, Wetlands Map, Zoning Map
 - 2. Documentation of meetings, including minutes
 - i. Open Discussion/Q&A
 - i. Discussion of table top exercises in this committee meetings to go over scenarios—question for if this could qualify for more CRS points.
 - 1. Good for auditing plans.
 - j. Action Items and Next Meeting
 - i. Adoption of plan
 - 1. Match 18th City Council Meeting

ii. Setting of next meeting

1. Decision to hold these committee meetings quarterly. Second Monday of 3rd Month of year at 10:00am.

2. Next meetings:

a. June 9th 2025

b. September 8th 2025

c. December 8th 2025

d. March 9th 2026

iii. Public Planning Committee formation - discussion for next meeting

II. Adjournment



**Monday, March 3, 2025
4:00 PM**

**City Council
Monday Meeting Agenda**

**Council Chambers
200 Forrest Street**

Call to Order

Agenda Review

Citizens' Forum

Work Session

- 1. 2025-173** Review of the MEMA District 8 Regional Hazard Mitigation Plan for Adoption by the City of Hattiesburg for 2025-2030, presented by Administration.
- 2. 2025-184** Downtown Roadmap, presented by Downtown Hattiesburg Association.

Meeting Recess



OPEN PUBLIC MEETING ADVERTISEMENT FOR THE ADOPTION OF THE MEMA DISTRICT 8 HAZARD MITIGATION PLAN FOR THE CITY OF HATTIESBURG, MISSISSIPPI

On March 18, 2025 during the regularly scheduled City Council meeting, the Mayor and City Council will adopt the MEMA District 8 Regional Hazard Mitigation Plan which includes the City of Hattiesburg, as well as several other neighboring counties and municipalities, at This plan is intended to help protect the citizens of the City of Hattiesburg and reduce any risk to hazards. The plan was presented to the public during a public meeting on March 3, 2025 in a work session in front of City Council.

The plan is available for public review and comment at City Hall in the Planning Division, located at:

Hattiesburg City Hall
Planning Division, 2nd Floor
200 Forrest St
Hattiesburg, MS 39401

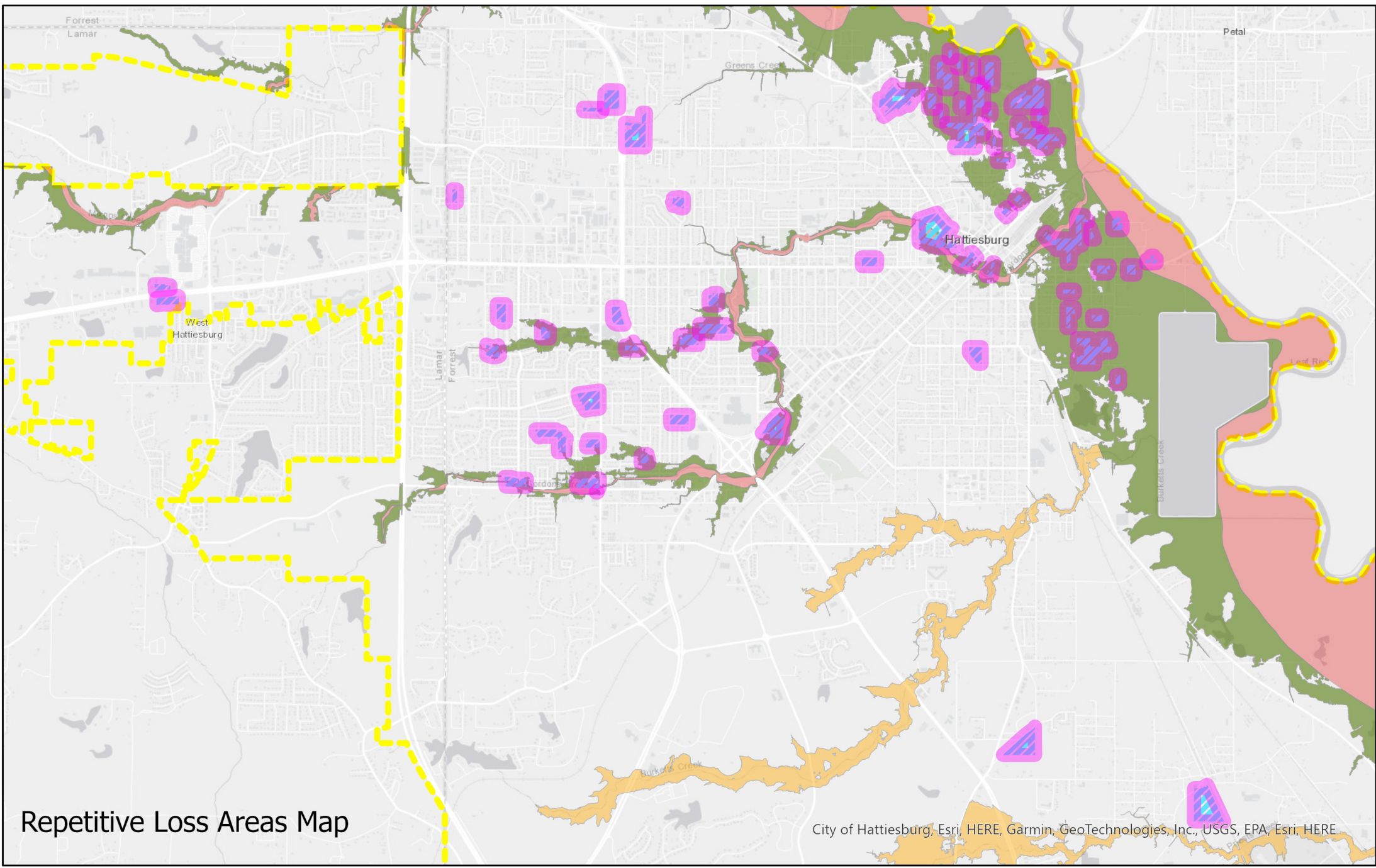
The plan is also online at the following website, under the March 3, 2025, City Council meeting, and will be available on the March 18, 2025, City Council Agenda:

<https://hattiesburgms.portal.civicclerk.com/>

You can also scan the QR Code below to review the document:



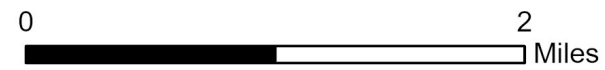
If you have any questions or comments, please contact the Planning Division at 601-545-4599 or by email at planning@hattiesburgms.com



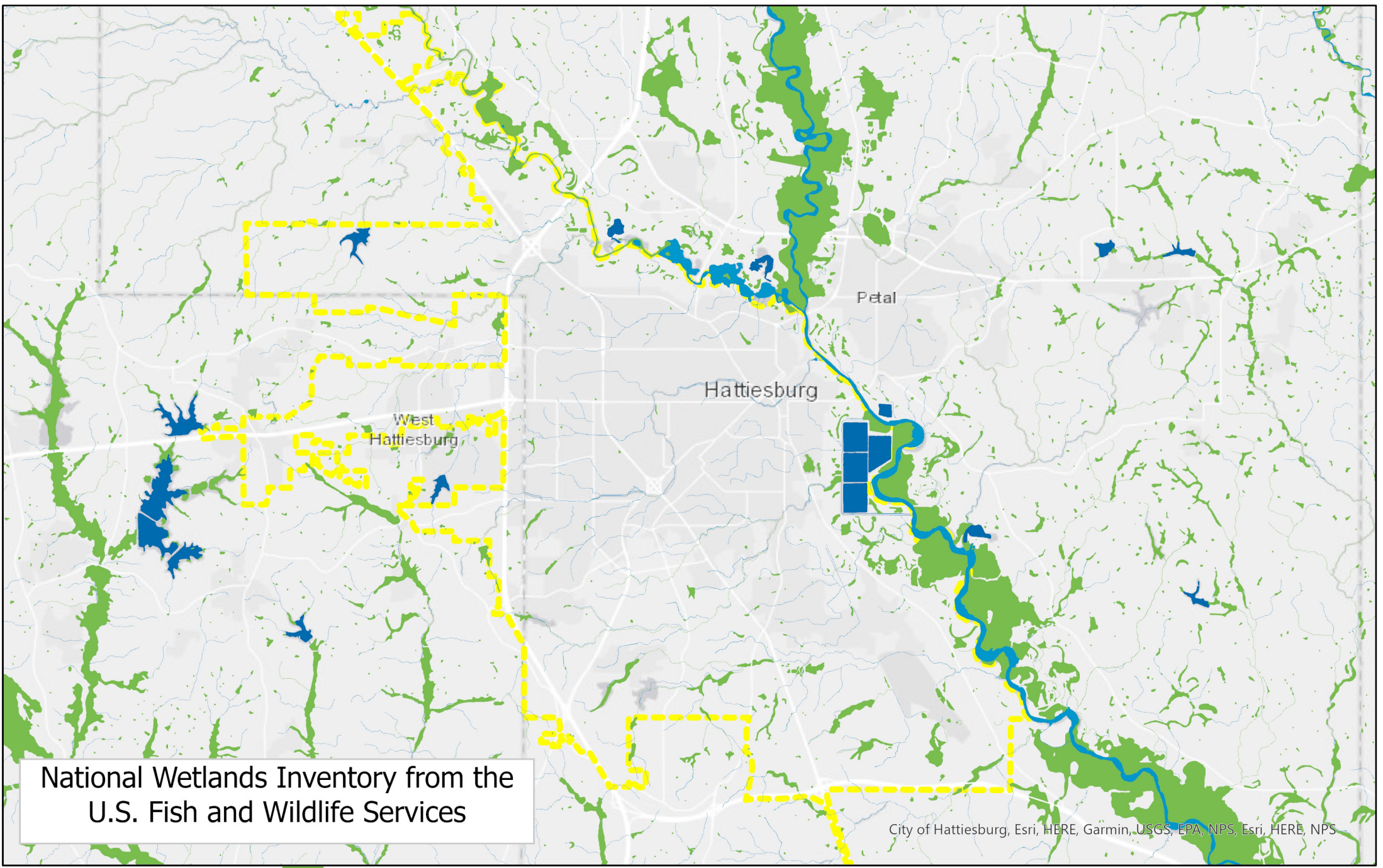
- | | |
|--------------------------------------|------------------------|
| FLOODWAY AREA IN ZONE AE | ZONE SX (500 yr flood) |
| ZONE A (100 yr flood - no elevation) | Repetitive Loss Areas |
| ZONE AE (100 yr flood w / elevation) | City Boundaries |

Note: Repetitive Loss Areas Generalized for privacy

DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data. This information CANNOT be used as a substitute for legal, business, tax or other professional advice. Map Exported on: 3/12/2025 8:23 AM



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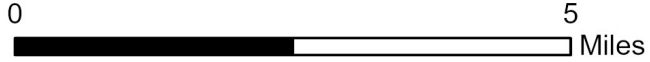


National Wetlands Inventory from the
U.S. Fish and Wildlife Services

City of Hattiesburg, Esri, HERE, Garmin, USGS, EPA, NPS, Esri, HERE, NPS

Wetlands by Type

- Marine
- Estuary
- Marsh, Swamp, Bog, Prairie
- River
- Lake, Reservoir
- City Boundaries



**URBAN
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PLANNING DIVISION**

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Map Exported on: 3/12/2025 8:51 AM

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

Promulgation Statement

County government shares a responsibility with State and municipal governments to be prepared in the event of a natural, technological, or man-made emergency or disaster that threatens life, property, or the environment. The Mississippi Emergency Management Law, MS Code Ann. § 33-15(1972) confers emergency powers on the Governor, the Mississippi Emergency Management Agency, executive heads of governing bodies of municipalities, and counties of the state to meet this responsibility.

In order to provide for an effective response to emergency situations, the federal, state, local and tribal governments must plan and prepare together. The concept and assignment of responsibilities outlined in this plan shall serve as the basis for the conduct of emergency operations by The Emergency Management District. It shall be the responsibility of all county agencies and organizations herein referenced to perform their assigned functional tasks and to prepare and maintain standard operating procedures and/or guidelines. All responsible parties shall provide notice of revisions and improvements to this Comprehensive Emergency Management Plan and support it through training and exercises.

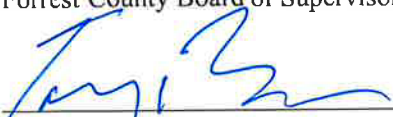
This plan is in accordance with existing state and federal statutes, in coordination with the National Response Framework and is National Incident Management System compliant. It will be revised and updated at least biennially, or more frequently as warranted. This plan is written and will be updated in compliance with the Federal Emergency Management Agency's *Developing and Maintaining Emergency Operations Plan, Comprehensive Preparedness Guide 101*, Version 2.0, November 2010.

Therefore, by virtue of the authority vested in me as President of the Board of Supervisors of Forrest County, I hereby promulgate the Forrest County Comprehensive Emergency Management Plan. Furthermore, I charge the Executive Director of the Emergency Management District (TEMD) with responsibility for the implementation of this plan under emergency conditions and its ongoing development, as experience and changing conditions require.



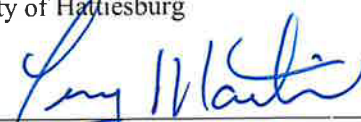
David Hogan, President
Forrest County Board of Supervisors

10/3/22
Date



Toby Barker, Mayor
City of Hattiesburg

10/3/22
Date



Terry Martin, President
TEMD Council

10/3/22
Date

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

Approval and Implementation

This plan will be effective upon submission by the Forrest County Emergency Management Agency's Director and approval by the President of Forrest County Board of Supervisors, the Mayor of the City of Hattiesburg, and the President of the TEMD Council.

This plan will be executed upon order of the President of Forrest County Board of Supervisors, the Mayor of the City of Hattiesburg, and the President of the TEMD Council.

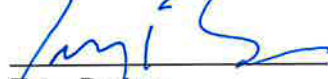
This document replaces and supersedes all previous versions of the Forrest County Comprehensive Emergency Management Plan.

SUBMITTED:

 10/3/22
Glen Moore Date
Executive Director
The Emergency Management District

APPROVED:

 10/3/22
David Hogan Date
President
Forrest County Board of Supervisors

 10/3/22
Toby Banker Date
Mayor
City of Hattiesburg

 10/3/22
Terry Martin Date
President
TEMD Council

SECTION 1: BASIC PLAN

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

Promulgation Statement

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In order to provide for an effective response to emergency situations, the federal, state, local and tribal governments must plan and prepare together. The concept and assignment of responsibilities outlined in this plan shall serve as the basis for the conduct of emergency operations by The Emergency Management District. It shall be the responsibility of all county agencies and organizations herein referenced to perform their assigned functional tasks and to prepare and maintain standard operating procedures and/or guidelines. All responsible parties shall provide notice of revisions and improvements to this Comprehensive Emergency Management Plan and support it through training and exercises.

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David Hogan, President
Forrest County Board of Supervisors

Date

Toby Barker, Mayor
City of Hattiesburg

Date

Terry Martin, President
TEMD Council

Date

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This plan will be executed upon order of the President of Forrest County Board of Supervisors, the Mayor of the City of Hattiesburg, and the President of the TEMD Council.

This document replaces and supersedes all previous versions of the Forrest County Comprehensive Emergency Management Plan.

SUBMITTED:

_____	_____
Glen Moore	Date
Executive Director	
The Emergency Management District	

APPROVED:

_____	_____
David Hogan	Date
President	
Forrest County Board of Supervisors	

_____	_____
Toby Barker	Date
Mayor	
City of Hattiesburg	

_____	_____
Terry Martin	Date
President	
TEMD Council	

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

Record of Changes

As changes are made to this plan, the following procedures should be followed:

1. Forrest County will issue all changes to holders of the plan through electronic media, email, or hard copy.
2. Upon receiving written notification regarding changes to this plan, individuals issued a hard copy should insert new pages and remove and destroy old pages. Minor changes may be made on existing pages by pen and ink.
3. When any change is made, enter the log below accordingly.
4. A rewrite will be performed every five years with a review and modification every two years as outlined in the MS Code Ann. § 33-15(1972).

Change Number	Date	Page and Section	Brief Description	Initials

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

Record of Distribution

Primary Distribution List

Copy No.	Individual's Name and Title/Organization's Name	Date of Transmittal	Date of Receipt
1	Operations Office, The Emergency Management District	September 2022	Sept 2022
2	Forresct Co Board of Supervisors	September 2022	Sept 2022
3	Mayor of The City of Hattiesburg	September 2022	Sept 2022
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Secondary Distribution List

Personnel and organizations on the secondary distribution list are those identified as essential to knowing the framework of the Comprehensive Emergency Management Plan (CEMP), but with certain information excluded pursuant to MS Code Ann. § 33-15-11 (b) (12)(1972).

Copy No.	Individual's Name and Title/Organization's Name	Date of Transmittal	Date of Receipt
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I. PURPOSE, SCOPE, SITUATION, AND ASSUMPTIONS

A. Purpose

The purpose of this Comprehensive Emergency Management Plan (CEMP) is to describe Forrest County's approach to response and recovery activities related to emergencies and major disasters. This plan establishes the policies and procedures by which Forrest County shall coordinate local response to disasters. Furthermore, this plan utilizes the Emergency Support Function (ESF) concept to marshal and apply county resources and describes the responsibilities of local agencies in executing effective response and recovery operations.

This CEMP incorporates the concepts and requirements found in state and federal laws, regulations and guidelines. Furthermore, the Forrest County CEMP provides the decision framework to enable local government to effectively respond to and recover from emergencies and disasters. The plan identifies the responsibilities and actions required to protect lives, property and the environment from natural, man-made and technological emergencies and disasters.

This document embraces the National Response Framework (NRF), the National Incident Management System (NIMS), the Comprehensive Preparedness Guide (CPG) 101, Version 2.0, the Presidential Policy Directive PPD/8, the National Preparedness Goal, "A Whole Community Approach to Emergency Management: Principles, Themes and Pathways for Action FDOC 104-008-1/December 2011," the National Preparedness System, the Stafford Act and Post-Katrina Emergency Management Reform Act (PKEMRA), along with federal civil rights laws as fundamental guidance for the state's emergency management program. To reflect evolving guidance and requirements of these documents, the CEMP is amended and updated every two years and rewritten every five years. The structure of this CEMP mirrors that outlined in the State Comprehensive Emergency Management Plan, the NRF and relevant Federal Emergency Management Agency (FEMA) guidance. The plan is developed under the concept of community-based planning. The premise is that all sectors of a community play a critical role and shared responsibility to protect life and property.

The Forrest County CEMP consists of four components: (1) Basic Plan, (2) Emergency Support Function Annexes, (3) Support Annexes and (4) Incident Annexes for Specific Incidents.

Basic Plan - Establishes fundamental policies and assumptions for countywide emergency management, outlines the county's vulnerabilities to potential hazards, establishes a comprehensive emergency management concept of operations and outlines local and state relationships and responsibilities. The basic plan includes planning assumptions, roles and responsibilities, a concept of operations, incident management actions and plan maintenance instructions. The incident management actions incorporate the updated requirements of the NIMS.

Emergency Support Function Annexes - Identifies the specific activities required to support each numbered function and specifies the agencies and organizations that are responsible for

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

performing those activities. While the ESFs name and describe the specific tasks, they do not describe the detailed procedures to perform them. The detailed procedures shall be developed by the coordinating ESF and support agencies in the form of Interagency Coordination Procedures, Standard Operating Procedures (SOPs), and Standard Operating Guides (SOGs).

Emergency Support Functions include:

ESF #1	Transportation
ESF #2	Communications
ESF #3	Public Works and Engineering
ESF #4	Firefighting
ESF #5	Emergency Management
ESF #6	Mass Care, Housing and Human Services
ESF #7	Logistics and Resource Support
ESF #8	Public Health and Medical Services
ESF #9	Search and Rescue
ESF #10	Oil and Hazardous Materials Response
ESF #11	Animals, Agriculture and Natural Resources
ESF #12	Energy
ESF #13	Public Safety and Security
ESF #14	Long-Term Community Recovery
ESF #15	External Affairs
ESF #16	Military Support to Civilian Authorities

Support Annexes - Describes the framework through which local and tribal entities, along with volunteer and non-governmental organizations coordinate and execute the common functional processes and administrative requirements necessary for efficient and effective incident management.

Incident Annexes - Deals with specific catastrophic and unique hazards. These annexes address special considerations and priorities generated by particular hazards affecting the county and the corresponding actions required to cope with them.

B. Scope

This document provides structures for implementing county-level policy and operational coordination for incident response. It can be partially or fully implemented in the context of a threat, in anticipation of a significant event, or in response to an incident. Selective implementation allows for a scaled response, delivery of the exact resources needed and a level of coordination appropriate to each incident.

This CEMP is intended to accelerate and make more disciplined the county's capacity to rapidly assess and respond to incidents that require local resources. In practice, many incidents require virtually spontaneous activation of interagency coordination protocols to prevent the incident

from becoming worse or to surge more aggressively to contain it. A county department or agency acting on independent authority may be the initial and the primary local responder, but incidents that require more systematic county response efforts are now actively coordinated through the appropriate mechanisms described in this document and in its supporting annexes.

Initial coordination of local incident assessment and response efforts is intended to occur seamlessly, without need for any formal trigger mechanism such as a written declaration by the County Board of Supervisors. This will support a more nimble, scalable and coordinated response by the entire emergency management community.

Major components of this plan include disaster information and situational awareness, concept of operations, and direction and control, supported by automatic activation.

C. Situation Overview

Forrest County is composed of two cities and municipalities and consisting of a total population of approximately 78,158 as of 2020 census updates. Of the county's population approximately 15,917 or 20% are disabled. Disability characteristics include (1) hearing difficulty, (2) vision difficulty, (3) cognitive difficulty, (4) ambulatory difficulty, (5) self-care difficulty, and (6) independent living difficulty.

Forrest County is exposed to many hazards, all of which have the potential of causing casualties, damaging or destroying public or private property and disrupting the county's economy. In any crisis or emergency, Forrest County's foremost concern is for the protection of human life and property.

The Forrest County EMA, with assistance from the state has taken great care in identifying these hazards and developing and executing plans that fully serve the citizens of Forrest County. The county has worked with numerous local agencies, organizations and concerned citizens to ensure that Forrest County is prepared to mitigate, prevent, protect, prepare for, respond to and recover from these threats. By researching historical records and learning from past hazardous events, vulnerabilities have been identified and estimated future losses projected. In addition, local capabilities have been identified and assessments have been made concerning current effectiveness.

Forrest County conducts emergency preparedness awareness campaigns through The Emergency Management District. Awareness campaigns include earthquake awareness, severe weather awareness, flood awareness, hurricane awareness, mitigation campaigns for children and adults and tornado awareness. Forrest County utilizes a variety of social networking venues, translators and broadcasting methods, such as radio, television and newspaper, to ensure that diverse populations are appropriately advised.

D. Hazard and Threat Analysis Summary

Forrest County is vulnerable to the effects of natural, man-made and technological hazards. The county's location in the Southeastern portion of the state makes it vulnerable to several significant natural hazards, including Tropical events, Winter Storms, floods and tornadoes among others. Furthermore, Forrest County is home to significant infrastructure, populations, and government functions that place it at risk for intentional acts meant to cause physical damage, casualties, or operational disruptions.

Hazard Categories

Natural Hazards - Natural incidents related to environmental conditions including dam and levee failure, drought and extreme heat, earthquakes, flooding, major fires (including grass, timber and urban), hurricanes, tornadoes and winter/ice storms.

Further information related to these hazards is found under separate cover in *The Forrest County Hazard Mitigation Plan* and as incident annexes of this document.

Man-made Hazards - Intentional acts including civil disorder, enemy attacks, sabotage, terrorism, cyber-attack, or other incidents involving the use of weapons of mass destruction.

Technological Hazards - Technological failures or accidents including, but not limited to: industrial hazards, structural collapse, power outages, fires, explosions, transportation accidents, water supply failure and hazardous materials such as: chemical, biological, radiological and nuclear.

Natural Hazards

Hurricane/Tropical Storm

Due to its proximity to the Gulf Coast, Mississippi records several hurricane watches and/or warnings during the Atlantic hurricane season, which runs from June 1 to November 30. Since 1965, Mississippi has received declarations for a number of major hurricanes and tropical storms. Some of these storms have impacted counties as far inland as 300 miles with high winds, rain damage, severe storms and flooding which has caused billions of dollars in damage. (See www.fema.gov/disasters)

The Gulf Coast of Mississippi is one of the more densely populated areas of the state. It is comprised of Hancock, Harrison and Jackson counties and the second-tier counties located immediately upland from the coastal counties of George, Pearl River, and Stone. According to the 2018 estimate, more than 397,261 residents reside in the coastal counties, while 97,892 residents make up the population in the second tier counties.

Not only are these counties densely populated with residents, but in recent years this area has experienced significant growth of the gaming industry which has increased planning requirements for the local population and tourists during hurricane warnings and evacuations. Furthermore, Harrison County is home to Gulfport, the major site for import commodities such as bananas for the nation, limonite ore and limestone, hardwood lumber, and other agricultural products.

Over the years, both residents and industry along the Mississippi Gulf Coast have felt significant and damaging impacts from hurricanes and tropical storms. Two historical hurricanes which have had the most impact were Hurricane Camille in 1969 and Hurricane Katrina in 2005. Combined these hurricanes resulted in the loss of approximately 387 lives and more than \$80 billion in property and crop damage. The impact was so great during Hurricane Katrina that a total of 49 counties were declared eligible for Individual Assistance; all 82 counties and the Mississippi Band of Choctaw Indians (MBCI) were eligible for Public Assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act yielding a total of almost \$4.9 billion in federal disaster funding.

Earthquake

Due to Mississippi's location to the New Madrid Seismic Zone (NMSZ), recent studies indicate that the state has the potential of experiencing significant damage from an earthquake. According to the United States Geological Survey (USGS), "In 1811 and 1812, a series of great earthquakes near the New Madrid, Missouri area was felt in Mississippi as far south as the Gulf Coast. The New Madrid series caused the banks of the Mississippi River to cave in as far as Vicksburg, more than 300 miles from the epicenter region." However, the earliest and strongest earthquake reported within Mississippi occurred on December 16, 1931, at about 9:36 p.m. Using the Modified Mercalli Intensity Scale the average intensity was VI - VII which is a magnitude 5.0 - 5.9 on the Richter Scale. Several chimneys in Belzoni (Humphreys County) and Tillatoba (Yalobusha County) were damaged. Although damage was minimal from this episode, if the same magnitude occurred today, due to increased area population and infrastructure, it is likely significant damage would result.

Although the NMSZ is the primary seismic activity source for the Southeastern United States, there are other potential earthquake sources in Mississippi. The USGS has recorded more than 43 earthquakes originating within the boundaries of Mississippi since 1911. On June 29, 2015 a 3.2 magnitude earthquake with a depth of three miles, centered just 4 miles southwest of Canton, Miss., struck at 8:23 a.m. Residents in the area reported feeling the rumbling in their homes. This same area experienced two similar quakes on May 2, 2015 with magnitudes of 3.2 and 3.0 respectively. After those earthquakes the USGS said there is not a major fault line in the area but that plates do shift from time to time. Earthquakes are ranked in magnitude of 1.0 to 7.0 or higher.

- General details of magnitude 3.0 earthquakes from the USGS: Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations are similar to the passing of a truck.

Although none of these caused significant damage, they should not be disregarded.

The NMSZ has the potential of producing an earthquake greater than magnitude 7.0 on the Richter scale. In recent years the USGS, in conjunction with the Central United States Earthquake Consortium (CUSEC), released data related to Mississippi based on a New Madrid magnitude 7.7

scenario. Counties that have a high liquefaction hazard and are closest to the NMSZ would experience considerable losses. Lateral spreading, (ground failure due to liquefaction), could lead to impassable roadways, ruptured utility lines and damaged port facilities. Bridge damage could be significant, potentially isolating some communities. Overall, the potential impact could result in approximately \$3 billion in building and income losses, with overall economic losses approximating \$3.9 billion. More than 25 percent of the total number of buildings in the state could be at least moderately damaged. Fifteen percent of the building and income losses would most likely be related to business interruption.

Annually, Forrest County participates in “The Great Central U.S. ShakeOut,” an 11 state public earthquake drill which is held the third Thursday of every October. MEMA conducts extensive outreach and education efforts to all populations throughout the state and encourages all individuals, including those with disabilities and others with access and functional needs, businesses, community and faith-based groups, nonprofit organizations and all levels of government to participate in this important drill. Information and preparedness guides for all sectors and populations can be found at www.shakeout.org/centralus.

Tornado

Each year the state conducts an annual Tornado Preparedness Week in an effort to increase community awareness and education. It is either conducted during the last week of October or the first week of November.

Since 1950 the nation has recorded 26 violent/long-track tornados (136+ mph), nine of which occurred in Mississippi. The National Weather Service (NWS) data reflects that the Natchez tornado of 1840 resulted in 317 deaths and the Tupelo tornado of 1936 had a total of 216 deaths. These tornados ranked in the top five deadliest tornados on record.

The most tornados recorded in one year in Mississippi occurred in 2005 with a total of 120 tornados. This large number was directly contributed to both Hurricanes Katrina and Rita of that year.

On April 24, 2010, Mississippi experienced a historic tornado which ranked as the fourth longest in Mississippi history with a maximum width of 1.75 miles and ranked as the ninth deadliest tornado, resulting in 10 fatalities.

According to the NWS, in April 2011 Mississippi set a new record for tornadoes in any month with a total of 67 tornadoes. On April 27, 2011 several Mississippi communities were hit by two EF5 tornadoes with winds in excess of 200 mph. This is the first time since 1990 that any state has recorded two EF5 tornadoes on the same day. When the super-outbreak was over, 37 lives were lost and 49 counties and the Mississippi Band of Choctaw Indians reported some damages from strong winds, tornadoes and flooding.

Additionally, on February 10, 2013, the City of Hattiesburg was hit by a violent EF4 multiple-vortex wedge tornado that devastated portions of Hattiesburg and Petal, Mississippi as well as surrounding locations. The Hattiesburg tornado was one of eight tornadoes that touched down in

southern Mississippi and southwestern Alabama that day. The tornado reached a maximum path width of 0.75 miles and reached estimated maximum sustained winds of 170 mph in the Oak Grove community of west Hattiesburg. The tornado injured 82 people (see www.noaa.gov) and caused damage amounting to \$15.6 million. This was the first violent tornado to occur in Lamar and Forrest counties since April 24, 1908 in which 143 people were killed. (See www.fema.gov/disaster/4101)

In 2014, Mississippi was hit with a powerful spring storm system (April 27 - 30). The most devastating tornado was the EF-4 which tore a path across NE Leake County on April 28, the corners of Attala/Neshoba counties, and through the heart of Winston County where the city of Louisville was especially hard hit. According to the National Weather Service, this tornado was on ground for 34.3 miles and resulted in 11 fatalities and many injuries. Other hard hit counties were Lowndes, Rankin, Hinds, Scott, Newton, Montgomery, Warren and Jones. Each of these counties experienced at least one tornado, some multiple tornadoes. Overall, 21 tornadoes were confirmed. Of these tornadoes, three were rated EF-3, three rated EF-2, 12 rated EF1 and two rated EF-0.

Flooding

Floods occur seasonally with general or torrential rains associated with tropical storms that later drain into river basins and fill them with an abundance of water. Rivers, lakes and other water bodies have always overflowed their normal beds to inundate nearby land. The land adjacent to these bodies of water is called the floodplain.

Mississippi is prone to four types of flooding: river flooding, flash flooding, coastal (tidal) flooding and drainage flooding. Many areas in the state are located within the 100-year floodplain and more than 300 communities have been federally identified as Special Flood Hazard Areas (SFHA). Since 1892, approximately 90 percent of the counties in the State have been impacted by flooding. The Mississippi River Flood of 1927 resulted in some 246 deaths, more than 600,000 left homeless and approximately \$284 million in property damage. Additionally, the Pearl River Flood (Easter Flood) of 1979 resulted in four deaths and approximately \$400 million in property damage.

In April and May, 2011 the Mississippi River once again overflowed its banks causing the U.S. federal government to declare 13 counties along the Mississippi River and its tributaries as federal disaster areas. A total of 1,262 applications were approved by FEMA for housing needs. The total amount of assistance requested from FEMA was \$13.7 million. Of this amount almost \$13 million went to meet housing needs through the individual assistance program. The remaining funds went toward other needs assistance.

Since 1984, under provisions of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 (PL 93 –288 as amended) and its predecessor, the Disaster Relief Act of 1970 (PL 91-606), 19 floods have resulted in being federally declared “Major Disasters.”

Wildfire

Agriculture is Mississippi's number one industry, employing 29 percent of the state's workforce either directly or indirectly. With approximately 42,000 farms in the state covering 11 million acres, wildfires in Mississippi could not only threaten human life, but economic viability as well.

Mississippi's total land area is 30.2 million acres and the total forest acreage is 20 million. Forestry directly creates 15,163 jobs statewide and supports a total of 123,659 jobs. Mississippi forests create a \$17.4 billion value added to the economy each year. Since 1990, 45 counties per year (out of 82) have had timber as the most valuable agricultural crop.

Mississippi traditionally has two wild land fire seasons each year. The first season usually begins in late October with the first frost and hardwood leaf drop and runs through December. The second season usually begins in February and runs to mid-April or until spring green-up. These seasons vary from year to year, depending on rainfall, wind and other weather factors. The southern one-third of the state generally tends to have the most wild land fire activity. According to the MFC 2012 Annual Report, Mississippi averages 3,200 wildfires a year burning more than 55,000 acres. Average wild land fire size is close to 15.9 acres. (See *State of Mississippi Standard Hazard Mitigation Plan*).

Winter Weather

Mississippi is potentially vulnerable to winter weather events which are categorized as heavy snow, ice storm, or winter storm (combination of ice, snow and freezing rain). According to the State of Mississippi Standard Mitigation Plan (2013), between 1996 and 2013, there were at least 73 damaging winter weather events with a reported loss of more than \$68 million in property damages. Event occurrence follows a geographic pattern. Winter storms occur most frequently in the northern counties with frequency of occurrence diminishing in a southward pattern.

In 1994, Mississippi experienced a damaging ice storm which was reported by the NWS as the worst since 1951. It not only affected Mississippi, but southeast Arkansas, west Tennessee, northwest Alabama and north Louisiana. Combined, the total damage estimates exceeded \$300 million and a federal disaster declaration for 26 counties.

In 1998, Mississippi experienced another winter storm which caused more than \$16 million in property damage.

In 2009/2010, NWS characterized Mississippi's winter as below-normal temperatures across the state. In Jackson, it was the fourth coldest winter since temperature records were first collected in 1896. It was also the ninth snowiest winter in Jackson, with one snowfall of 5.5 inches recorded by the NWS Forecast Office. In January 2010, prolonged sub-freezing temperatures caused massive failure of water mains throughout Jackson and the Central Mississippi region, creating problems for residents and causing emergency conditions at hospitals, police precincts, businesses, restaurants, communications systems and state facilities.

In 2015, Mississippi experienced multiple winter weather events between February and March.

In February, a winter weather system affected much of the north central part of the state. Counties in this region saw between 3-6 inches of snow. Some areas reported nearly 10 inches of accumulation. Several fatalities occurred and power outages were reported from 16 counties.

In March, moderate sleet fell in portions of Central Mississippi. Certain portions of the Delta experienced significant accumulation. Other areas south and east Mississippi saw sleet, with little or no accumulation. The Natchez Trace corridor received between ½ inch to 1 - 2 inches in the northern parts of the Delta. During both events, schools, state and local government agencies were closed or had delayed openings.

Man-made and Technological Hazards

Mississippi is home to significant infrastructure, populations and government functions that place it at risk for unintentional or intentional acts which could cause physical damage, casualties, or operational disruptions. Over the years, the frequency of man-made and technological hazards has increased mainly due to the number and availability of hazardous substances and the potential for human error. The vast network of interstate highways and railways result in vulnerabilities to hazardous material releases from both stationary and transportation sources.

Specific man-made or technological hazards which could occur include:

A virulent strain of pandemic influenza - This type of hazard has the potential to cause casualties in the hundreds of thousands and result in economic loss. Additional human and animal infectious diseases, including those previously undiscovered, may present significant risk.

Dam failures or chemical substance spills or releases - This type of hazard may have the potential to cause extensive fatalities and severe economic impacts and the likelihood of occurrence may increase due to aging infrastructure.

Terrorist organizations or affiliates - These organizations may seek to acquire, build and use weapons of mass destruction (WMD). Conventional terrorist attacks, including those by “lone actors” employing explosives and armed attacks, present a continued risk to the state.

Cyber-attacks - Attacks such as this can have their own catastrophic consequences and can also initiate other hazards, such as power grid failures or financial system failures, which magnify the potential impact of cyber incidents.

For further information regarding Forrest County’s hazards, vulnerabilities and how the county expects to receive (or provide) assistance within its local response structures refer to the *Forrest County Standard Mitigation Plan*, the Emergency Support Functions, Support and Incident Annexes of this county CEMP and the Mississippi Office of Homeland Security’s (MOHS) website at www.homelandsecurity.ms.gov.

E. Capability Assessment

With preparedness as the foundation, the CEMP utilizes the mission areas of protection, prevention, response, recovery and mitigation to implement three core capabilities that span all five mission areas: Planning, Public Information and Warning and Operational Coordination. (Refer to Table 2, pg. 13)

Preparedness - Refers to the actions taken to plan, organize, equip, train and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the state.

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Preparedness is a shared responsibility of the *whole community*. Every member contributes, including individuals, communities, the private and nonprofit sectors, faith-based organizations and federal, state and local governments. Preparedness also includes children, individuals with disabilities and others with access and functional needs, diverse communities and people with limited English proficiency.

Mission Areas

Protection - Refers to those capabilities necessary to secure the homeland against acts of terrorism and man-made or natural disasters. Protection capabilities include, but are not limited to: defense against WMD threats, defense of agriculture and food, critical infrastructure protection, protection of key leadership and events, border security, maritime security, transportation security, immigration security and cyber security.

Prevention - Refers to those capabilities necessary to avoid, prevent or stop a threatened or actual act of terrorism. Prevention capabilities include, but are not limited to: information sharing and warning, domestic counterterrorism and preventing the acquisition or use of WMD. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations, heightened inspections, improved surveillance and security operations, investigations to determine the full nature and source of the threat, public health and agricultural surveillance and testing processes, immunizations, isolation or quarantine and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.

Response - Refers to those capabilities necessary to save lives, protect property and the environment and meet basic human needs after an incident has occurred. Response includes the execution of CEMPs, mitigation activities designed to limit the loss of life, personal injury, property damage and other unfavorable outcomes. Response also includes efforts to begin the process of returning to pre-emergency conditions.

Recovery - Refers to those capabilities necessary to assist communities affected by an incident to recover effectively, including, but not limited to: rebuilding infrastructure systems, providing adequate interim and long-term housing for survivors, restoring health, social and community services promoting economic development and restoring natural and cultural resources. Recovery must begin as soon as possible which may be short-term or long-term in duration. The emergency management organization initiates procedures to assess needs and resources, establish priorities,

Table 1

Whole Community is a philosophical approach in how to conduct the business of emergency management

Benefits include:

- Shared understanding of community needs and capabilities
- Greater empowerment and integration of resources from across the community
- Stronger social infrastructure
- Establishment of relationships that facilitate more effective prevention, protection, mitigation, response and recovery activities
- Increased individual and collective preparedness
- Greater resiliency at both the community and national levels

Source: A Whole Community Approach to Emergency Management: Principles, Themes and Pathways for Action - FDOC 104-008-1 / December 2011

review state and federal aid criteria and coordinate with representatives from both levels of government. Once the extent of the recovery effort is determined, the appointed recovery team members determine how best to manage the specific activities, what resources and personnel will be required and what other actions are needed to return the impacted areas to normal operations as quickly as possible. (Additional community-based recovery information is available in ESF #14).

Mitigation - Refers to those capabilities necessary to reduce loss of life and property by lessening the impact of disasters. Mitigation capabilities include, but are not limited to, community-wide risk reduction projects, efforts to improve lifelines, risk reduction for specific vulnerabilities from natural hazards or acts of terrorism and initiatives to reduce future risks after a disaster has occurred. Mitigation measures may be implemented prior to and after an incident and are often influenced by lessons learned from prior incidents. Measures may include zoning and building codes, floodplain buyouts and analysis of hazard-related data to determine where it is safe to build or locate temporary facilities. Mitigation can include efforts to educate governments, businesses and the public on measures they can take to reduce loss and injury.

The MEMA Office of Mitigation is responsible for coordinating disaster loss reduction programs, initiatives and policies throughout the state. Disaster loss reduction measures are carried out through disaster reduction programs, initiatives and policies through the development of state and local hazard mitigation plans and the implementation of strategies identified in the plans.

The Office of Mitigation will review the mitigation actions, activities and ongoing projects as deemed necessary. The evaluation process will include project status and update such items as timeline, funding source and responsible entity. In addition, the Office of Mitigation will also review current programs and initiatives as identified by the grant manager. Any desired or necessary changes to the mitigation actions or programs will be communicated to senior management and other stakeholders.

Core Capabilities

Planning - Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational and/or community-based approaches to meet defined objectives.

Public Information and Warning - Deliver coordinated, prompt, reliable and actionable information to the whole community through the use of clear, consistent, accessible and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

Operational Coordination - Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.

Overview

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

Core capabilities are essential for the execution of each of the five mission areas: Prevention, Protection, Mitigation, Response and Recovery (See Table 2 below). To assess both our capacity and our gaps, each core capability includes capability targets for which measures will be developed. The core capabilities and capability targets are not exclusive to any single level of government or organization, but rather require the combined efforts of the whole community.

Table 2: Core Capabilities by Mission Area

Prevention	Protection	Mitigation	Response	Recovery
Planning				
Public Information and Warning				
Operational Coordination				
• Forensics and Attribution • Intelligence and Information Sharing • Interdiction and Disruption • Screening, Search and Detection	• Access Control and Identity Verification • Cyber Security • Intelligence and Information Sharing • Interdiction and Disruption • Physical Protective Measures • Risk Management for Protection Programs and Activities • Screening, Search and Detection • Supply Chain Integrity and Security	• Community Resilience • Long-term Vulnerability Reduction • Risk and Disaster Resilience Assessment • Threats and Hazard Identification	• Critical Transportation • Environmental Response/Health and Safety • Fatality Management Services • Infrastructure Systems • Mass Care Services • Mass Search and Rescue Operations • On-scene Security and Protection • Operational Communications • Public and Private Services and Resources • Public Health and Medical Services • Situational Assessment	• Economic Recovery • Health and Social Services • Housing • Infrastructure Systems • Natural and Cultural Resources

Table 1: Resource: National Preparedness Goal: First Edition, September 2011, pg. 2

F. Assumptions

- Federal civil rights laws in Section IV of the FEMA Guide “Accommodating Individuals with Disabilities in the Provision of Disaster Mass Care, Housing, & Human Services” require equal access for, and prohibit discrimination against, people with disabilities in all aspects of emergency planning, response, and recovery.
- To comply with Federal law, those involved in emergency management should understand the concepts of accessibility and nondiscrimination and how they apply in emergencies.
- Incidents mean an occurrence or event (natural, technological, or human-caused), that requires a response to protect life, property, or the environment. Examples include: major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wild land and urban fires, floods, hazardous materials (HAZMAT) spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war-related disasters, public health and medical emergencies and other occurrences requiring an emergency response.
- Incidents may occur at any time with little or no warning in the context of a general or specific threat or hazard and they may involve single or multiple geographic/jurisdictional areas.
- All incidents begin and end locally and are typically managed at the lowest possible geographic, organizational and jurisdictional level.
- Government at all levels must continue to function under all threats, emergencies and disaster conditions.
- Executive Order No. 932 designates NIMS as the basis for all incident management in the State of Mississippi. Therefore, incident management activities shall be initiated and conducted using the NIMS Command and Management principles. In accordance with NIMS requirements, the Incident Command System (ICS) will be used as the on-scene management system.
- Forrest County has adopted a Unified Command (UC) structure for incident management.
- Local governments possess varying levels of capabilities, plans, procedures and resources to provide for the safety and welfare of their people. They also vary in their capacity to protect property and the environment in times of emergency or disaster.
- Incidents may cause significant alterations and damage to the environment resulting in numerous casualties and fatalities, displaced individuals, property loss, disruption of normal life support systems, disruption of essential public services and damage to basic infrastructure.

- Incidents pose a challenge for the whole community but specifically the special needs population which includes children, individuals with disabilities and others with access and functional needs, diverse communities, the elderly and people with limited English proficiency. These groups may be lacking in resources such as food, shelter and transportation. ESF #6 will coordinate all local efforts to provide sheltering and temporary housing, feeding, and other human needs following a catastrophic disaster requiring mass care assistance. ESF #1 and ESF #8 will assist with transportation requirements for special needs populations.
- Approximately 20 % of Forrest County's population is disabled. Preparedness, prevention, response, recovery and mitigation efforts will be consistent with federal policy and guidelines. Emergency efforts will enable people with disabilities to evacuate, use emergency transportation, stay in shelters and participate in all emergency and disaster related programs together with their service animals. (Refer to <http://factfinder2.census.gov> for disability statistics).
- Persons with pets may be hesitant to evacuate or seek shelter. ESF #11 will develop strategies for the evacuation and shelter of persons with pets.
- Incidents may attract a sizeable influx of independent, spontaneous volunteers and supplies and may require prolonged, sustained incident management operations and support activities.
- Individuals, community based organizations, and businesses will offer services and support in time of disaster.
- Incidents may overwhelm capabilities of local and tribal governments and private-sector infrastructure owners and operators.
- Mutual aid and other forms of assistance will be rendered when impacted jurisdictions exhaust or anticipate exhausting their resources.
- The Director of Forrest County emergency management agency or their respective representative may request assistance directly from another participating party by contacting that party through the Statewide Mutual Aid Compact (SMAC). The requests may be verbal, in writing, or through the use of the Mississippi State Notification System called WebEOC®
- The greater the complexity, impact and geographic scope of an emergency, the more multiagency coordination will be required.
- Local governments may request state assistance when the local resources for incident management become inadequate. MBCI, which is a sovereign state and has the power to request assistance independently of the, has elected to function in the same manner as the other counties within the state of Mississippi. ("Accord Between the Executive Branches of

the Mississippi Band of Choctaw Indians and the State of Mississippi,” 24 November 1997
Kept under separate cover)

- When a major emergency or disaster occurs in any locality, an evaluation of the severity and magnitude will be made by MEMA in coordination with local officials and representatives of other state and federal agencies.
- If the situation in Forrest County warrants support from the state, the Forrest county Board of Supervisors and the Cities of Hattiesburg, and Petal will sign a **Resolution Requesting Governor to Proclaim a State of Emergency (DR-4)** and submit to MEMA through e-mail, WEBEOC or the MEMA Area Coordinator (AC).
- If the situation in Forrest County warrants support from the state, the Governor will declare a state of emergency and the State Emergency Operations Center (SEOC) will be activated at the appropriate level to support a coordinated response.
- If an incident exceeds the capabilities of both the state and local governments, the state will request assistance from other states using the Emergency Management Assistance Compact (EMAC).
- The Federal government will provide emergency assistance to Mississippi when requested and in accordance with the NRF. Federal assistance is provided by the Robert T. Stafford Disaster Relief and Emergency Assistance Act [§Public Law (PL) 93-288, as amended by PL 100-707] through the implementation of the NRF, or by Presidential Declaration of either an “Emergency” or “Major Disaster.”

II. CONCEPT OF OPERATIONS

Incidents typically begin and end locally and are managed on a daily basis at the lowest possible geographical, organizational, and jurisdictional level. This plan takes into account the involvement of the whole community, which includes individuals, communities, the private and non-profit sectors, faith-based organizations, and federal, state and local governments who are mandated or encouraged to develop, exercise, and maintain individual CEMPs.

When local resources become exhausted emergency managers depend on the involvement of multiple jurisdictions for support. Therefore, it is imperative that the whole community be prepared to assist in this effort. This plan will be activated under the direction of the Forrest County Board of Supervisors or by their designee in response to emergency or disaster events which prove to exceed the ability and resources of local emergency management.

A. National Response Framework (NRF)

The NRF is a guide to how the nation conducts all-hazards incident response. The NRF states that the role of a state government during emergency response is to supplement local efforts before,

during and after a disaster or emergency situation. If a state anticipates its needs may exceed its resources, the Governor can request assistance from other states through mutual aid agreements (MAAs), EMAC, and/or the federal government. **If a county in Mississippi anticipates its needs may exceed its resources, the county Board of Supervisors can request assistance from other counties through the SMAC Agreement.**

The NRF emphasizes the concept of resilient communities. Resiliency begins with prepared individuals and depends on the leadership and engagement of local government, civic leaders and private sector businesses and organizations. These entities should work with individuals, families and service providers for people with disabilities and others with access and functional needs to enhance their awareness of risk levels and specific threats, develop household emergency plans that include household pets and service animals and prepare emergency supply kits.

B. National Incident Management System (NIMS)

NIM provides a consistent framework for incident management, regardless of the cause, size, or complexity of the incident. NIMS provide the nation's first responders and authorities with the same foundation for incident management for all hazards.

Executive Order No. 932 as signed by the Governor of the State of Mississippi designates the NIMS as the basis for all incident management in the State of Mississippi. NIMS provides a consistent nationwide approach for federal, state, tribal and local governments to work together to prepare for, prevent, respond to and recover from domestic incidents, regardless of cause, size, or complexity. **Forrest County has adopted the Incident Management System by signing a NIMS Standard Operating Guideline (SOG) which implements the Incident Command System in this county.**

The components of NIMS include:

- Incident Command System (ICS)
- Multi-agency Coordination Systems (MACS)
- Training
- Identification and management of resources (including systems for classifying types of resources)
- Qualification and certification
- Collection, tracking, and reporting of incident information and incident resources

C. Incident Command System (ICS)

ICS is a critical component of NIMS and is used to manage all incidents. ICS is used to organize on-scene operations for a broad spectrum of emergencies from small to complex incidents, both natural and man-made. The field response level is where emergency management/response personnel, under command of an appropriate authority, carry out tactical decisions and activities in direct response to an incident or threat. Resources from the federal, state, tribal, or local levels, when appropriately deployed, become part of the field ICS as prescribed by the local authority. ICS is used by all levels of government – federal, state, tribal, and local – as well as by many non-governmental organizations (NGOs) and the private sector. ICS is applicable across disciplines.

ICS Management includes the following characteristics:

- Common Terminology
- Modular Organization
- Management by Objectives
- Reliance on an Incident Action Plan (IAP)
- Manageable Span of Control
- Pre-designated Incident Mobilization Center Locations and Facilities
- Comprehensive Resource Management
- Integrated Communications
- Establishment and Transfer of Command
- Chain of Command/Unity of Command
- Unified Command
- Accountability of Resources and Personnel
- Deployment
- Information and Intelligence Management

D. Unified Command System (UC)

Unified Command is a structure that brings together the Incident Commanders of different organizations/agencies involved in the incident in order to coordinate an effective response while at the same time carrying out their own jurisdictional responsibilities.

The UC links the organizations/agencies responding to the incident and provides a forum for these entities to make consensus decisions. Under the UC, the various jurisdictions and/or agencies and non-government responders are co-located or closely coordinate and communicate throughout the operation to create an integrated response team.

The UC is responsible for overall management of the incident and possesses the decision-making authority. The UC directs incident activities, including development and implementation of overall objectives and strategies and approves ordering and releasing of resources. Members of the UC will work together to develop a common set of incident objectives and strategies, share information, maximize the use of available resources and enhance the efficiency of the individual response organizations.

UC members shall represent an appropriate level of authority in their respective organizations and agencies as well as the resources to carry out their responsibilities. The UC members may change as the response transitions out of emergency response into recovery. In conjunction with the ICS the UC enables state agencies and the federal government to carry out their own responsibilities while working cooperatively within one response management system.

E. Multi-agency Coordination System (MACS)

Multi-agency coordination is a cornerstone of comprehensive emergency management. Fundamentally, MACS provide support, coordination and assistance with policy-level decisions to the ICS structure managing an incident. MACS may be required on large or wide-scale incidents that require higher-level resource management or information management. The primary functions of MACS are to:

- Support incident management policies and priorities
- Facilitate logistics support and resource tracking
- Make resource allocation decisions based on incident management priorities
- Coordinate incident-related information
- Coordinate interagency and intergovernmental issues regarding incident management policies, priorities and strategies

MACS include emergency operations centers, such as the Forrest County Emergency Operations Center and the State Emergency Operations Center (SEOC), and, in certain multi-jurisdictional or complex incidents, multi-agency coordination entities. Multi-agency coordination entities are responsible for:

- Ensuring that each involved agency is providing situation and resource status information
- Acquiring and allocating resources required by incident management personnel
- Coordinating and identifying future resource requirements
- Coordinating and resolving policy issues
- Providing strategic coordination

F. Public Information/Interoperable Communications

1. Public Information

Public information consists of processes, procedures and systems to communicate timely, accurate and accessible information on the incident's cause, size and current situation to the public, responders and additional stakeholders. Public information must deliver coordinated, prompt, reliable and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

Translation of important MEMA materials ensures that Public Information Officers (PIOs) are able to communicate risk and safety actions to nearly all citizens of Mississippi. This includes non-English speaking populations. Translation services are available commercially and have been identified by the MEMA PIOs.

Interpretation for the deaf and hard of hearing is also of critical importance. MEMA PIOs will contact a certified interpreter from the MS Department of Rehabilitation Services to participate in critical MEMA news conferences from the State Emergency Operations Center. Critical news releases and information may also be interpreted and distributed through the use of vendors who specialize in translation into American Sign Language and posted and distributed via the Web. Specific vendor information along with detailed procedures for communicating with special needs populations are found in the MEMA External Affairs SOG (under separate cover). Forrest County utilizes the services offered by the MEMA External Affairs Office

2. Interoperable Communications

NIMS stresses that the success of incident response and recovery operations depends on the availability and redundancy of critical communications systems to support connectivity to internal organizations, other departments or jurisdictions, and the public. The Forrest County government and its agencies, as well as local jurisdictions, will strive to achieve interoperable communications, including testing their communications equipment bi-annually to assess the adequacy to support essential functions and activities and ability to communicate with first responders, emergency personnel, federal and state governments, other agencies and organizations and the general public. The Mississippi Wireless Communications Commission (WCC) heads up the statewide communications 700 MHz communications project funded by several federal agencies (i.e. FEMA and the Federal Communications Commission (FCC). This system was developed to insure interoperability between Federal, State, tribal, and local levels of government. All counties and the MBCI maintain their own local radio systems. However, they have access to this system.

Forrest County utilizes both traditional communications systems and modern technologies such as WebEOC®, Internet, high frequency (HF) phones, radios and satellite networks combined with backup from other local agencies tasked under this plan to enhance the county's capability in communications and automated data systems.

Internal and external communications equipment is essential to support disaster recovery efforts. Each is needed to disseminate instructions and operational guidance. Internal communications equipment may utilize existing telephone systems, e-mail, satellite radio, facsimile machines, HF radio, or messengers (in extreme situations). External communications utilize existing systems; in a major disaster, existing communications may require augmentation to handle the increased volume of traffic.

G. Local, State and Federal Relationships

The Forrest County CEMP addresses the full spectrum of emergency management activities related to incident management for response and recovery, consistent with state law. The MS Code Ann. § 33-15-1(1972) is the legal guidance for all emergency management operations. It addresses legal issues as it relates to preparedness, response, or recovery actions. MS Code Ann. § 33-15-21(1972) addresses the liability protection that is available to responders.

FEMA: IV. "Non-Discrimination Principles of the Law" addresses Federal civil rights laws which require equal access for, and prohibit discrimination against, people with disabilities in all aspects of emergency planning, response, and recovery. State and local plans adhere to Federal non-discrimination laws governing emergency management preparedness, response, and recovery actions. Key non-discrimination concepts applicable under such federal laws and how they apply to all phases of emergency management can be found at <http://www.fema.gov/iv-non-discrimination-principles-law>.

1. Local

The initial responsibility for the first level of response, emergency actions, direction, control and coordination rests with the local government through both its elected and appointed officials. County and municipal governments handle the majority of emergencies in accordance with local laws and community requirements.

The Executive Director of the Emergency Management District is recognized as the legal authority for requesting all state and federal assistance as stated in Mississippi Emergency Management Law and the Mississippi Comprehensive Emergency Management Plan (CEMP 1/2022).

Local police, fire, emergency medical services (EMS), emergency management, public health and medical providers, public works, and other community agencies are often the first to be notified about a threat or hazard and to respond to an incident. These entities work with individuals, families, and service providers for people with disabilities and others with access and functional needs to enhance their awareness of risk levels and specific threats, develop household emergency plans that include household pets and service animals, and prepare emergency supply kits. Information on how to prepare emergency supply kits can be found on the MEMA website at www.msema.org and on www.ready.gov.

If an incident escalates and exceeds the capability of local resources and personnel, state resources may be made available through coordination with MEMA. Local authorities should respond to the severity and magnitude of the incident by:

- Proclaiming a “Local Emergency” [MS Code Ann. § 33-15-17 (d)(1972)]
- Fully employing their own resources [MS Code Ann. § 33-15-49(1972)]
- Designating capable personnel to make requests to MEMA for additional resources, if necessary [MS Code Ann. § 33-15-17(a) (1972)].

Counties and other localities should implement the State Mutual Aid Compact (SMAC) and/or MAAs with each other, as well as with neighboring jurisdictions, local organizations or chapters of volunteer organizations, private industry or others, as appropriate.

Each municipality within a county must coordinate requests for state and federal emergency response assistance through the county emergency management agency.

Assistance from higher levels of government is obtained by requests from the head of the affected local government (or the designated representative) to the head of the next higher level of government.

Local government officials shall take formal action to proclaim the existence of a local emergency [MS Code Ann. § 33-15-17(d) (1972)] and record the action in the minutes of the board or council meeting.

Requests for assistance from a local government will, at a minimum, contain the following:

- The specific cause(s) of the emergency or disaster
- The effective date (beginning of the incident)
- The anticipated date the emergency will expire. **(By law, an emergency action automatically ends 30 days from the date of enactment unless it is extended by official action of the governing body)**
- Special provisions deemed necessary to cope with the situation. These include, but are not limited to: suspension of selected routine public services, reallocation of scarce resources such as fuel, energy, food and water supplies, reassignment of manpower; movement, combination, or relocation of government offices; activation of shelters, imposition of curfews and provision for emergency purchasing authority.

Local government officials, through the Civil Defense/Emergency Management (CD/EM) Director, or designee, are expected to submit minimum prescribed reports to MEMA according to state reporting requirements. These reports, which are found on the MEMA web page, www.mema.ms.gov, are updated periodically and include the following:

- Initial Disaster Report (MEMA DR-1) - Due within 4 hours of incident
- Situation Report (MEMA DR-2) - Due within 24 hours of the incident and every 24 hours thereafter until the reporting process for that incident is finished
- Proclamation of Local Emergency (MEMA DR-3). **(Within 24 hours and renewed every 30 days as needed).**
- If state assistance is requested, a resolution requesting the Governor to proclaim a state of emergency (MEMA DR-4).

If local governments request state and/or federal assistance, local officials are required to submit, through the local emergency management director to MEMA, as agent for the Governor, the above reports plus the following assessments:

- Full *Damage Assessment Package* (MEMA Crisis Track)
- Report of obligations and expenditures.

All requests for resources and assistance from local governments must be documented. WebEOC® is designated by MEMA as the primary tool for documentation of all requests (if the electronic connectivity is available during and following the incident). Requests may be made by e-mail, telephone, or field copy via the MEMA Area Coordinator to the SEOC should connectivity not be available.

The policy and responsibility of MEMA is to identify, monitor, and evaluate potential problem conditions that might affect the state and its political subdivisions; when possible, advise or warn those areas potentially affected; and receive, evaluate, and respond to requests for emergency or disaster assistance from local government entities as appropriate.

MEMA will make an evaluation of the situation, based on local government reports and other reports made available by personnel from supporting state agencies and departments and recommend to the Governor whether to declare a state of emergency.

2. State

The mission for the Mississippi Emergency Management Agency is to ensure that the public is educated on what disaster or emergencies may occur and how to best protect themselves and their property. This is accomplished through public awareness campaigns, tours of the State EOC, public speaking engagements and public relations materials that include public service announcements, news releases, the agency's website, social media and printed handout materials.

A top priority for the Mississippi Emergency Management Agency is building a new "Culture of Preparedness," to ensure that every Mississippian is prepared for any type of disaster, whether natural or man-made. Preparedness begins with individuals and families, but a key component is for communities to come together and help one another prepare. MEMA encourages every family to have a fully-stocked disaster supply kit, and also have a home evacuation plan. Detailed information for individuals, families, and community preparedness are located on the MEMA website www.msema.org under "be prepared."

The State's policy is that all emergency management functions be coordinated to the maximum extent with comparable functions of the federal government [MS Code Ann. § 33-15-(3) (b) (1972)].

When the Governor declares an emergency the full resources of State government, as directed by MEMA, shall be made available to provide assistance to local governments, or to otherwise fulfill state responsibilities.

MEMA is authorized to request other State of Mississippi agencies to complete various tasks as appropriate for effective emergency management as defined in [MS Code Ann. § 33-15-11(1972)].

Resources will be requested by local government or state agencies in WebEOC® and tasked by the Logistics Chief or designee to the affected area (see ESF #7 and Logistics Management Annex). The Resources Unit, within the SEOC Plans Section, will track personnel only deployed in support of response efforts.

If the state becomes overwhelmed and federal assistance is needed, the Governor may proclaim a state of emergency [MS Code Ann. § 33-15-11(b) (16) (1972)], implement the state CEMP and request federal assistance in one of two forms:

- A request is made to the Regional Director of FEMA for implementation of the NRF to provide immediate response and early recovery assistance. This request for the NRF may or may not be preliminary to a request for the President to declare either an emergency or a full scale major disaster.
- A request is made to the President through FEMA to declare either an emergency or a major disaster for specific areas (counties).

The request to the President to declare either an emergency or major disaster is prepared as follows:

- MEMA prepares the request for a Presidential Declaration and submits it to the Governor for signature.
- After the Governor signs the request, it is forwarded to the Regional Director of FEMA, who forwards it to the Administrator of FEMA, who then forwards it to the President.

If the Governor requests and receives a Presidential Declaration of an emergency or major disaster, state and federal personnel are appointed to coordinate the joint process in the Joint Field Office (JFO).

The MEMA Executive Director, unless otherwise directed by the Governor, serves as the Governor's Authorized Representative (GAR) to sign legal documents. The GAR authorizes all state requests for federal assistance and obligates the state for its matching share (25 percent, or less, depending on the federal-state agreement) of total approved costs. The MEMA Executive Director or designee normally serves as both the State Coordinating Officer (SCO) to coordinate response and recovery activities and as the alternate GAR.

3. Federal

Should an incident be catastrophic (i.e., of such severity and magnitude to require immediate federal assistance without delay), FEMA will initiate the preliminary process to implement assistance as outlined in the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

FEMA will coordinate the dispatch of a federal interagency Incident Management Assistance Team (IMAT) to the SEOC to monitor and evaluate the development and impact of the incident. Depending upon the severity of the incident, representatives of designated ESFs, both state and federal, follow the federal IMAT to coordinate activation of each ESF, as needed. Federal agencies supporting each ESF assume a close working relationship with the state agency having primary responsibility for that function. The state maintains the primary responsibility for response and recovery functions while federal counterparts coordinate for federal resource support. Federal government representatives assigned the lead of ESFs are

requested to be present at the Mississippi SEOC or JFO and to be seated side-by-side with state leaders for corresponding ESFs.

FEMA may dispatch a Regional IMAT, consisting of regional-level staff, as a first deployment to the field in response to a disaster incident.

When resources of the FEMA Region have been, or expect to be, overwhelmed in the event of a catastrophic incident, FEMA will dispatch a National IMAT.

If an incident is thought to be an act of terrorism, the Secretary of Department of Homeland Security will, in consultation with other federal departments and agencies as appropriate, provide coordination for federal operations and/or resources and conduct ongoing communications with the State of Mississippi to maintain situational awareness, analyze threats, assess national implications of threat and operational response activities and coordinate threat or incident response activities with the State of Mississippi.

4. Local, State, and Federal Relationship - Special Needs Population

Forrest County recognizes that throughout all mission areas and phases of emergency management the local, State, and Federal government must take into account the needs of the whole community. Forrest County adheres to FEMA: IV. “Non-Discrimination Principles of the Law” which require equal access for, and prohibit discrimination against, people with disabilities in all aspects of emergency planning, response, and recovery. There will be no discrimination on grounds of race, color, religion, nationality, sex, age, handicap, language, or economic status in the execution of disaster preparedness or disaster relief and assistance functions. This policy applies equally to all levels of government, contractors, and labor unions. Consumer complaints pertaining to alleged unfair or illegal business practices during the emergency will be referred to the State Attorney General’s Consumer Protection Division.

Specific members of the population of special interest are:

a. Populations with Access and Functional Needs

According to the 2020 American Community Survey (1-year Estimates) there are approximately 15,917 or 20% of Forrest County’s population who are disabled. (Source: <http://factfinder2.census.gov>)

Populations with access and functional needs may include those members of the community who:

- Have disabilities
- Live in institutionalized settings
- Are elderly

- Are children
- Are from diverse cultures
- Have limited English proficiency or are non-English speaking
- Are transportation disadvantaged

These members of the community may have needs before, during and after an incident in access and functional areas, including but not limited to: maintaining independence, communication, transportation, supervision, and medical care.

When considering this population and others who are at-risk, emergency management plans should take into account the following:

- Communications and Public Information - Emergency notification systems must be accessible to ensure effective communication for people who are deaf/hard of hearing, blind/low vision, or deaf/blind.
- Evacuation and Transportation - Evacuation plans must incorporate disability and older adult transportation providers for the purpose of identifying the movement of people with mobility impairments and those with transportation disadvantages.

During State-declared catastrophic incidents, the Mississippi State Department of Health (MSDH) utilizes specialized vehicles such as ambulatory buses and wheelchair vans for affected populations with special medical needs. However, these vehicles can be used for persons with functional needs requirements as well. The vehicles are maintained at the county MSDH offices. Additionally, the Mississippi Department of Transportation (MDOT) maintains a fleet of public transit vehicles that are used on a day-to-day basis to transport the elderly and those who have transportation challenges. These vehicles will be called upon to augment ESF #6 requirements for ensuring that affected persons with functional needs and special medical needs are provided for.

- Sheltering - Care and shelter plans must address the access and functional needs of people with disabilities and older adults to allow for sheltering in general population shelters.
- Americans with Disabilities Act of 1990, As Amended -When shelter facilities are activated, the state will work with local officials to ensure they accommodate the provisions of the Americans with Disabilities Act (ADA). Refer to the ADA Checklist for Emergency Shelters, July 26, 2007, located at <http://www.ada.gov/pcatoolkit/chap7shelterchk.htm>.

- Functional Needs Support Services (FNSS) Compliance - FNSS are defined as services that enable individuals to maintain their independence in a general population shelter. All shelters must meet physical and programmatic accessibility requirements as defined by the Americans with Disabilities Act. An FNSS designation means that shelters provide a higher level of attendant care than general population shelters. Any facility designated as an approved shelter must meet minimum safety requirements. To ensure consistency with State and Federal standards, guidelines, and best practices, all shelters are required to be American Red Cross (ARC) compliant. FNSS Compliance includes:
 - a. Reasonable modifications to policies, practices, and procedures
 - b. Durable medical equipment
 - c. Consumable medical supplies
 - d. Personal assistance services
 - e. Other goods and services as needed

When local government becomes overwhelmed, MDHS will act in conjunction with the American Red Cross to meet victims' needs. Refer to www.fema.gov/iv-non-discrimination-principles-law for FNSS Guidance. For FNSS shelter guidance, refer to "Guidance on Planning for Integration of Functional Needs Support Services in General Population Shelters" November 2010.

b. At-Risk Individuals

Plans must take into account the at-risk population such as, but not limited to: the homeless, transportation disadvantaged, those without communication systems such as telephones and tourists who may not be in contact with traditional emergency service providers. These individuals may find it difficult to access and use standard resources to prepare for, respond to, and recover from disasters. Local government and its political subdivisions must include provisions in their emergency response plans that address the specific needs of these individuals during response and recovery.

As the coordinating agency for ESF #6, it is the responsibility of the MDHS local office to coordinate the facilitating of additional services in FNSS shelters. Examples of these services include but are not limited to:

- Bariatric beds and linens
- Procurement of health aids (i.e. eyeglasses, canes, oxygen tanks, etc.)
- Language interpreters
- Communications aids (i.e. brail, hearing aids, etc.)

Additional information regarding FNSS in shelters can be found in ESF #6.

III. **ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES**

A. **Organization**

Forrest County is organized into two levels of government: municipality and county. After the occurrence of emergencies or disasters, the Forrest County Board of Supervisors will assume Executive Emergency Powers of the Governor as provided under MS Code Ann. § 33-15-11(1972) and MS Code Ann. § 33-15-13(1972), otherwise cited as the *MS Emergency Management Act of 1995*.

B. **Responsibilities**

The intent of the Forrest County CEMP includes, but is not limited to: reducing the vulnerability of the people and property of this county; preparing for the efficient evacuation and shelter of threatened or affected persons, to include: children, individuals with disabilities and others with access and functional needs, diverse communities and people with limited English proficiency; preparing for the evacuation and shelter of threatened household pets and service animals; providing for the rapid and orderly provision of relief to persons; and coordinating activities relating to emergency prevention, protection, response, recovery, and mitigation among and between agencies and officials of this state, with similar agencies and officials of other states, local and federal governments, interstate organizations, and the private sector.

C. **Local**

1. It is the responsibility of Forrest County through its elected officials to establish and provide for the necessary organizational structure that will alleviate human distress and return the community to normal as soon as possible after a major emergency or disaster. To accomplish these goals, it is imperative that effective planning be accomplished.
2. Powers, rights, duties, functions, and privileges are exercised by the County Board of Supervisors and by the Mayors and governing boards of all municipalities.
3. *The Emergency Management Act of 1995* requires each county operating individually or jointly, to establish and maintain a local emergency management organization. Local officials will appoint a local Emergency Management Coordinator or official who will have direct responsibility for the organization, administration and operation of a local organization for emergency management, subject to the direction and control of local officials.
4. **As stated in Title 33, Chapter 15 Mississippi Code of 1972, Annotated**, each county will develop an emergency management plan and program that is coordinated and consistent with Mississippi's CEMP.

5. Incident management activities shall be initiated and conducted using the NIMS command and management principles. In accordance with NIMS requirements, the ICS will be used as the on-scene incident management system.
6. Local CEMPs should be prepared and revised annually to reflect any local, tribal, State, or Federal changes. MEMA will schedule a two-year review and assist the counties in a rewrite every five years. (See § 33-15-14 of the MS Emergency Management Law Preparation and maintenance of state comprehensive emergency management plan.)
7. Local plans should be tested and exercised annually to ensure they are adequate and represent the current level of local capability to respond to and recover from a disaster or emergency. These plans must also be compatible with the State's CEMP and provide guidance and operating procedures to apply for supplemental state and federal assistance after local resources are committed or exhausted.
8. **All local personnel that are funded through the Emergency Management Performance Grant (EMPG) must participate in at least one exercise annually. Additionally, completion of certain NIMS and professional development courses is required (or must meet current FEMA guidelines).**
9. Agencies of local governments are assigned responsibilities and specific tasks by the local governing body according to their capabilities. They are responsible for initial response and relief efforts and for advising their government officials when assistance is needed.
10. The President of the Board of Supervisors is the primary official responsible for action of county government. The Mayor is the Chief Executive Officer responsible for actions of municipal government. County and city governing authorities are authorized to:
 - Assign and make available employees, property, and equipment for emergency operations
 - Establish a local EOC and secondary control centers to serve as emergency command posts
 - If warranted, proclaim a local emergency to exist upon the occurrence or imminent threat of a natural disaster
 - Activate local plans and appropriate MAAs
 - Prepare and submit requests for state assistance through the counties

- Accept services, equipment, supplies, or funds by gifts, grant, or loan from the State or Federal government or any person, firm, or corporation
 - Organize and staff emergency preparedness entities for the purpose of coordinating and managing disaster response and recovery
11. In case of an emergency/disaster situation, the impacted counties/municipalities will be responsible for the following:
- Coordinating the emergency response effort within their political jurisdictions (county and municipalities)
 - Providing regular situational updates to MEMA
 - Directing local evacuations, coordinating shelter activation and requesting outside assistance when necessary
 - Activating MAAs and/or SMAC with neighboring counties and among municipalities within the county
 - Proclaiming a local state of emergency and making a formal request for state assistance
 - Designating local public information officers (PIOs) for coordination with the Joint Information Center (JIC)
 - Documenting all requests for resources and assistance using WebEOC® (if the electronic connectivity is available during and following the incident)

Protective actions, such as evacuation and re-entry, are local in scope. In such cases, emergency preparation and response activities for an area are coordinated and administered by county officials, using local resources in accordance with county policies and plans.

12. Section 17-7-1 of the Mississippi Code provides for relocation of the center of local government in an emergency.

The Forrest County Emergency Management Director, along with elected officials, is responsible for all policy level decisions in disaster situations. (In the absence of an appointed Emergency Management Director, responsibility for this function will revert to the Deputy Director or County Administrator.)

COOP/COG actions at local levels will be initiated and implemented in close collaboration with MEMA. It is the responsibility of every local government to develop a functional COOP/COG plan.

Continuity of Government

1. Forrest County
 - a) President of the Board of Supervisors
 - b) Vice President
 - c) Board Members in order of Seniority
 - d) County Administrator
2. Cities of Hattiesburg and Petal
 - a) Mayor
 - b) Vice-Mayor
 - c) Board of Alderman
3. Forrest County Emergency Management Agency
 - a) Emergency Management Director
 - b) Designee

D. State

1. State Government

- a. The Governor is responsible for declaring that a state of emergency exists and at such time, directs all available state and local resources, as reasonably necessary, to cope with the disaster utilizing NIMS/ICS doctrine. This includes the designation of an “Emergency Impact Area”, transfer and direction of personnel or functions of state agencies or units for the purpose of performing or facilitating disaster services and designation of a state level Incident Commander (IC) as needed.
- b. The State of Mississippi is responsible for providing assistance to any political subdivision within the state that requests emergency or disaster assistance. The MEMA Executive Director shall coordinate and cooperate with the President and other federal officials as well as review and execute intrastate and interstate MAAs and compacts (EMAC/SMAC).
- c. During a declared emergency period, the state may take any action authorized under the provisions of the law without regard to a particular order, rule, or regulation of a state agency, if such action is necessary to protect the safety and welfare of the inhabitants of this state.

- d. Protection, prevention, response, and recovery efforts for all threats or acts of terrorism within the state, regardless of whether they are deemed credible and/or whether they escalate to a higher level, are coordinated with the Mississippi Department of Public Safety (DPS) and Mississippi Office of Homeland Security (MOHS) as referenced in the Terrorism Incident Annex of the Mississippi CEMP.

2. Mississippi Emergency Management Agency (MEMA)

- a. MEMA, with its Executive Director and staff, is authorized by MS Code Ann. § 33-15-7(1972). MEMA has responsibility for the coordination of all state emergency management activities.
- b. MEMA operates as the 24-hour state warning point. (Refer to ESF #2 - Communications and the MEMA Communications Standard Operating Guidelines (SOG) for additional information).
- c. In the event an emergency or disaster situation develops within the state, the MEMA Executive Director shall activate the SEOC which will be staffed at the appropriate level throughout the duration of the situation.
- d. MEMA will coordinate resources in the field.
- e. MEMA can serve as liaison between local government and other State of Mississippi agencies.

3. Other State Agencies

- a. Per the Emergency Management Law, responsibilities have been assigned to various state agencies listed in this plan's ESFs and Support and Incident Annexes. Agencies assigned the primary role are responsible for performing special emergency support functions.
- b. These agencies have been determined to have the appropriate resources and day-to-day operational expertise to provide guidance and leadership for supporting MEMA and local units of government. Agencies assigned supporting roles are responsible for supporting primary agencies with resources and personnel.
- c. State agencies assigned primary and supporting roles in this plan are responsible for planning and preparing in the pre-emergency period to ensure capabilities exist to effectively carry out their emergency responsibilities and for ensuring rapid response should their assistance be required elsewhere in the state. Planning and preparation responsibilities include, but are not limited to: annual revisions and updates as required of their respective ESFs, developing detailed SOPs, checklists, and an alert

and notification system for key personnel whose services will be required immediately upon implementation of this plan [MS Code Ann. § 33-15-14(2)(a)(viii)(1972)].

- d. In addition to primary and support duties, other additional tasks may be assigned by MEMA to state agencies based on the existing need. As provided in [MS Code Ann. § 33-15-11(1972)], all departments, agencies, offices and institutions of the state not assigned emergency responsibilities shall make their resources available in support of the emergency management program.
- e. Chief executives of the agencies shall designate agency representatives and key decision makers to be present at the county EOC until emergency operations return to manageable levels.
- f. Chief executives of the agencies shall designate PIOs to the JIC.

4. Continuity of Operations Plan (COOP)/Continuity of Government (COG)

Section § 17-7-1 of the Mississippi Code, “Removal of sites of government in emergency resulting from natural, disaster, enemy attacks, etc.”, provides for relocation of the center of State government in an emergency.

- Whenever, due to an emergency resulting from a natural disaster, the effects of enemy attack, or the anticipated effects of a threatened enemy attack, it becomes imprudent, inexpedient or impossible to conduct the affairs of municipal and county governments or any subdivisions thereof at the regular or usual place or places thereof, the governing body of each political subdivision of this state may meet at any place within or without the territorial limits of such political subdivision on the call of the presiding officer or any two (2) members of such governing body, and shall proceed to establish and designate by ordinance, resolution or other manner, alternate or substitute sites or places as the emergency temporary location, or locations, of government where all, or any part, of the public business may be transacted and conducted during the emergency situation. Such sites or places may be within or without the territorial limits of such political subdivision and may be within or without this state.

The MEMA Executive Director, along with the Governor, is responsible for all policy level decisions in disaster situations. In the absence of an appointed Emergency Management Director, responsibility for this function will revert to the MEMA Chief of Staff or the Deputy Director(s).

COOP actions at the state level will be initiated and implemented in close collaboration with the Office of the Governor. It is the responsibility of every state government to develop a functional continuity plan.

a. Lines of Succession

Formally defined lines of succession are of primary importance to protecting and preserving constitutional government. Interim successors are authorized to exercise all the powers and discharge all the duties of their office during an emergency in which they become successor. A minimum of three successors is recommended for each branch. Lines of succession are found in each agency's continuity plan. Both documents found under separate cover.

To ensure rapid response to any emergency situation or disaster requiring COOP implementation, pre-delegated authorities for making policy determinations and decisions are given to the Executive Director/designee of MEMA.

In the event of an act of terrorism or threat(s) of violence the MOHS shall be the lead investigative agency with direct report to the Office of the Governor as outlined in State Statute (Codes, 1942 3980.5; Laws, 1947, 2nd Ex. Ch.2, 1-4).

E. Federal

When an incident occurs that exceeds or is anticipated to exceed state, tribal, or local resources, as outlined in the NRF, the Federal government will provide resources and capabilities to support the state response.

F. Tribal

The Tribal leader for the Mississippi Band of Choctaw Indians (MBCI) is responsible for the public safety and welfare of the people of that tribe. As authorized by tribal government, the tribal leader is responsible for coordinating tribal resources needed to prevent, protect against, respond to, and recover from incidents of all types. For certain types of federal assistance, tribal governments work with the state, but as sovereign entities they can elect to deal directly with the Federal government for other types of assistance. (See "FEMA Tribal Policy, www.fema.gov/tribal-policy). In order to obtain federal assistance via the Stafford Act, a state Governor must request a Presidential declaration on behalf of a tribe.

The MBCI maintains a CEMP for their tribe that provides a framework for responding to incidents that occur within their borders and on their properties.

G. Private Sector and Non-Governmental Organizations (NGOs)

The private sector and NGOs contribute to response efforts through engaged partnerships with each level of government. The protection of critical infrastructure and the ability to rapidly restore normal commercial activities can mitigate the impact of an incident, improve the quality of life of individuals, and accelerate the pace of recovery for communities and the nation. NGOs provide sheltering, emergency food supplies, and other vital support services.

1. Personal Preparedness

The residents of Forrest County are the primary beneficiaries of the county's emergency management system. At the same time, residents play an important role in emergency management by ensuring that they and their families are prepared for disasters.

Before an emergency, residents can assist the emergency management effort by taking first aid training, maintaining supplies and being prepared to evacuate or shelter in-place for several days. Many residents join disaster volunteer programs and remain ready to volunteer or support emergency response and recovery efforts. During an emergency, residents should monitor emergency communications and carefully follow directions from authorities. By being prepared, residents can better serve their family, their community and reduce demands on first responders.

Many local government agencies, particularly county offices of emergency services, have individual, family and community preparedness initiatives. At the county level, Forrest County promotes individual and community preparedness and offers information for preparing for various disasters. Information can be found at <http://forresteoc.com/>, and various social media outlets. Other agencies in the county also provide information and tools to support individual and community emergency planning and matching volunteers to volunteer opportunities they are American Red Cross, Salvation Army, Volunteer Hattiesburg, and the R3SM community based recovery group.

2. Public - Private Partnerships

The private sector provides valuable assistance and resources to support emergency response and recovery activities. To support coordination and response between government and the private sector, Forrest County is currently working to secure agreements between local agencies and nonprofit and private sector resources that can be called upon during an emergency.

Much of the private sector includes businesses. The majority of the county's critical infrastructure is owned or maintained by businesses and must be protected during a response to ensure a quick and complete recovery from an emergency. These same businesses provide valuable resources before, during and after an emergency and play a critical role in meeting the needs of those impacted by an emergency. Businesses are encouraged to develop a comprehensive business emergency plan which can assist the business and the community at-large to better ensure the protection of vital resources.

3. Voluntary Organizations

Forrest County recognizes the value and importance of organizations which perform voluntary services in the community. When a disaster threatens or strikes, these organizations are often among the first on the scene. They have resources that augment emergency response and recovery efforts. Many are trained in various areas of emergency management. Services which they provide most often address basic human needs which

enable affected individuals to resume normal daily activities. These services include, but are not limited to: shelter, food, clothing, spiritual support, health, and mental health services. Refer to the Volunteer Support Annex, ESF #6, ESF #11, and ESF #14 for more information.

IV. DIRECTION, CONTROL and COORDINATION

The President of the Board of Supervisors or his/her designee is responsible for coordinating Forrest County's response to an incident.

A. Forrest County Emergency Operations Center (EOC)

1. The Forrest County EOC is located at 4080 Hwy 11 Hattiesburg, MS 39402. Alternate EOC location is The Emergency Management District Training Facility.
2. Whenever the Forrest County EOC is activated at a Level III or higher, Forrest county staff is assigned the lead of ESF #2, ESF #5, ESF #9, ESF #14 and ESF #15 activities and to support other ESFs that have been activated. The staff in the EOC is comprised as specified in the EOC's SOG located under separate cover.
3. Emergency Coordinating Officers (ECOs) from the local agencies/departments involved in the response will join the Forrest county staff in the EOC until emergency operations return to manageable levels. ECOs from local agencies, private volunteer agencies and private nonprofit organizations are assigned to ESFs.
4. Depending upon the severity and magnitude of the emergency, the EOC may be activated either partially or fully to support the accomplishment of the activities needed, at the appropriate level described below:

- a. LEVEL-I - Any disaster or emergency that requires full county response where the local governments clearly are overwhelmed. The EOC shall be fully operational with 24-hour staffing by all county ESFs. The MS IMAT could be deployed forward to the area of operations with resource support, direction and control from the SEOC.

Note: This level corresponds with FEMA Regional Response Coordination Center (RRCC) Level I: Massive - An event/incident involving massive levels of damage, with severe impact or multi-state scope. This level will result in a Presidential disaster declaration, with major federal involvement and full engagement of federal regional and national resources.

- b. LEVEL-II - Involves an emergency or disaster that requires full county response and possible state response and recovery assistance. The EOC shall be fully operational on a continual 24-hour basis with staffing from all county ESFs. The

MS IMAT could be deployed forward to the area of operations with resource support, direction and control from the SEOC.

Note: This level corresponds with FEMA RRCC Level II: Moderate - An event/incident involving moderate levels of damage which will likely result in a major Presidential disaster declaration, with moderate federal assistance.

- c. LEVEL-III - Involves any emergency or pending disaster that is likely to require the involvement of several ESFs. All primary and support agencies shall be alerted and the EOC staffed with Forrest County and essential ESF personnel.

Note: This level corresponds with RRCC Level III: Minor - An event/incident involving minor to average levels of damage, which may result in a Presidential declaration of an emergency or disaster. Some federal involvement may be requested by state or local jurisdictions and the request will be met by existing federal regional resources.

- d. LEVEL-IV - Normal day-to-day operational activities. Involves any incident that does not exceed the capabilities of local government or results in minimal requirements for state level assistance. Only those agencies or ESFs with normal day-to-day emergency service responsibilities or regulatory requirements for the incident will be notified by Forrest County EMA. Full SEOC activation is not expected.

B. Mississippi Incident Management Assistance Team (MS IMAT) Operations

1. If conditions warrant mobilization and deployment of the MS IMAT, the MEMA Bureau of Field Services Director or designee will serve as the MS IMAT Leader.
 - a. The MS IMAT is composed of representatives from MEMA, other state agencies and local personnel as needed for incident response and liaison. MS IMAT members and deployment guidelines are located in the MS IMAT SOG under separate cover.
 - b. For earthquake response, the MS IMAT will deploy to the State Earthquake Support Center (SESC) at the Mississippi National Guard facility at Camp McCain, Elliott, MS (Grenada County).
 - c. For hurricane operations, the MS IMAT will deploy to the State Hurricane Support Center (SHSC) at the Air National Guard Combat Readiness Training Center (CRTC), Gulfport, MS. Camp Shelby may be used as a staging area prior to final deployment to the CRTC.
2. The MS IMAT mission includes, but is not limited to, the following tasks:

- a. Equip the SHSC or SESC for operational readiness.
- b. Establish a capable state response presence in the disaster area.
- c. Become local government's point of contact for state assistance.
- d. Provide disaster intelligence to SEOC and ESF counterparts.
- e. Coordinate the use of available disaster area resources.
- f. Prioritize specific action to reduce life-threatening conditions.
- g. Channel local unmet resource needs to the SEOC.

C. Mobile Operations Center (Command Trailer)

- 1. The Command Trailer is our self-contained response/communications motor vehicle that may be deployed with ESF personnel to support local operations at or near a forward site.
- 2. The Command Trailer is equipped with mobile data connectivity, radio, and satellite communications services.
- 3. Other Local agencies possess mobile equipment similar to the Command Trailer that may also be utilized in field operations.

D. Joint Field Office (JFO) Operations

- 1. A JFO will be the primary field location near the impacted area for the purpose of conducting and coordinating response and recovery operations between FEMA and the state. The JFO will provide housing of offices for the Governor's Authorized Representative (GAR), State Coordinating Officer (SCO), MS IMAT Leader, Federal Coordinating Officer (FCO) and the State Response and Recovery Branch. State and federal ESF counterparts are located together for ease of communications during the operation.
- 2. The JFO will be established during the recovery phase of an incident and will remain operational for as long as necessary.
- 3. During or following disasters, additional personnel will be required to conduct damage assessments and to provide public assistance (PA) and individual assistance (IA) to the state and local governments and other qualified applicants.

E. Disaster Recovery Center (DRC)

A DRC is a facility established in, or in close proximity to, the community affected by the disaster where persons can meet face-to-face with represented federal, state, local, and volunteer agencies to:

- Discuss their disaster-related needs
- Obtain information about disaster assistance programs
- Register for disaster assistance via telephone
- Update registration information
- Learn about measures for rebuilding that can eliminate or reduce the risk of future loss
- Request the status of their application for assistance
- Complete the Small Business Administration (SBA) loan application

F. Recovery Operations

1. The recovery process will be implemented from two different locations: the Forrest County EOC and DRCs. The latter is a field location.
2. The President of the Board of Supervisors is responsible for the commitment of all county resources and for coordinating all disaster recovery efforts between the municipalities and the County.
 - a. Short-term recovery goals should allow for:
 - Identifying essential records, vital systems, and operations
 - Establishing priorities for reinstatement of systems and operations
 - Establishing maximum acceptable downtime before reinstatement to an acceptable system and operational level
 - Identifying minimum resources needed to recover business operations.
 - b. Long-term recovery goals should consider:

- Strategic planning, to include budgeting for structural and non-structural repairs
- Development and implementation of mitigation goals and activities
- Management and coordination of recovery activities
- Management of fiscal operations and recovery funding
- Management of volunteer, contractual, mutual aid, and agency resources.

G. Alert, Notification and Warning

Alert, notification and warning will deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

1. Alert

- a. Involves procedures within an organization for advising key personnel and emergency operating staff of situations that may require future actions.
- b. All agencies/departments involved in emergency and disaster response will maintain call lists and procedures for alerting officials within the organization of potential or actual situations in which assistance may be required. The call lists shall be reviewed and updated biannually.

2. Notification

- a. Notification procedures are contained in the The Emergency Management SOP included in the Support Annexes
- b. Emergency notification systems must be accessible to ensure effective communication for people who are deaf/hard of hearing, blind/low vision, or deaf/blind.

3. Warning

- a. Involves forecasting or predicting natural, technological, or man-made incidents that could result in loss of life, hardship and suffering, or extensive property damage.
- b. Natural hazards, such as floods, hurricanes, tornadoes, severe storms, and winter storms, usually allow more timely warning. But some natural, technological, and man-

made hazards strike with little or no warning. These include earthquakes, accidents at fixed nuclear facilities, hazardous materials incidents, transportation accidents, enemy attack, and terrorism.

- c. Local authorities disseminate warnings of potential or actual disasters to the general public.
- d. Forrest County EMA will coordinate with all appropriate departments/agencies and organizations to ensure timely warning readiness in case of a man-made, natural disaster, or emergency and will initiate actions to warn citizens by all means necessary.
- e. Forrest County will prepare plans and procedures for activation of local warnings utilizing all available systems and networks. Personnel and facilities shall be trained and organized to provide warning capability on a 24-hour-a-day basis.

H. Evacuation

- 1. Evacuation is an action that is implemented by local government. It is an organized, phased and supervised dispersal of residents and others from dangerous or potentially dangerous areas.
- 2. Where lives are endangered, protective action recommendations are issued by the appropriate local government officials. County evacuation plans must be coordinated by county government and must be in accordance with state plans.
- 3. Some disasters provide enough time for warning to allow for an orderly, well-planned evacuation. Other disasters do not allow for sufficient warning or preparation for evacuation.
- 4. Evacuation plans must consider the movement of residents and others with mobility impairments and those with transportation disadvantages.
- 5. Shelters and mass feeding sites will be available for evacuees working in conjunction with local government and volunteer organizations. When shelter facilities are activated, the county will work with state officials to ensure they accommodate the provisions of the Americans with Disabilities Act (ADA) and are compliant with Functional Needs Support Services. Care and shelter plans will address the access and functional needs of people with disabilities and older adults to allow for sheltering in general population shelters, which includes household pets and service animals.
- 6. ESF #6 will coordinate all local efforts to provide sheltering and temporary housing, feeding, and other human needs following a catastrophic earthquake, hurricane, or other

significant disaster requiring state mass care assistance. Specific types of shelters and shelter resource requirements are outlined in this ESF.

7. Evacuation and shelter instructions will be issued to the broadcast media through the Public Broadcasting System. Hurricane evacuation routes are marked with transportation route signs. These signs may contain radio frequencies for Mississippi Public Broadcasting's radio stations.
8. Local government will coordinate the evacuation requirements with MEMA prior to, during, and following a disaster. This includes, but is not limited to: timeliness of evacuation, initiating evacuation procedures, issuing joint public information statements, and determining evacuation routes and shelter locations. Types of evacuations include:

- a. Spontaneous Evacuation

Some residents or others in the threatened areas may observe an emergency incident or receive unofficial word of an actual or perceived threat and, without receiving instructions to do so, elect to evacuate the area. Their methods of movement and direction of travel is unorganized and unsupervised.

- b. Voluntary Evacuation

This is a warning to residents or others within a designated area that a threat to life and property exists or is likely to exist in the immediate future. Individuals issued this type of warning or orders are not required to evacuate; however, it would be to their advantage to do so.

- c. Mandatory or Directed Evacuation

This is a warning to residents or others within the designated area that an imminent threat to life and property exists and individuals must evacuate in accordance with the instructions of local officials.

9. It will be the responsibility of the individual to make arrangements for transporting family and personal belongings whenever evacuation is performed. Persons who are physically or financially unable to carry out the recommendations of local governments should inform the appropriate authorities in order to take advantage of local operating procedures and plans for persons with special needs.
10. The Forrest County EOC shall be prepared to assist cities and municipalities, as requested, with resources to effectively and timely evacuate residents and others with special needs from harm's way. The following local and state agencies will support the evacuation process as outlined

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

- a. Forrest County Board of Supervisors/ County Road Department/ MDOT - The Forrest County Board of Supervisors and County Road Department will work in conjunction with the Mississippi Department of Transportation to ensure routes are prepared in advance of the notification/warning for safe and efficient flow. Position message boards and resources to help facilitate warnings on routes and exchanges.
 - b. Forrest County Sheriff's Office/MDPS - Forrest County Sheriff's Office working in conjunction with the Mississippi Department of Public Safety, will utilize resources from all local and state agencies with law enforcement responsibilities to provide law enforcement personnel to assist with route patrol, security and escort of buses for mass evacuation (i.e. public transit buses).
 - c. Forrest County School Board/MDE - Forrest County School Board working in conjunction with the Mississippi Department of Education will coordinate with local school districts outside the disaster area to provide school bus equipment, as feasible, to support emergency transportation to reception centers and shelter sites.
11. Following a disaster, state and local authorities will jointly decide when it is safe for residents and others to return to their homes and businesses. Information will be broadcast to the public to facilitate and control the re-entry.

V. INFORMATION COLLECTION, ANALYSIS AND DISSEMINATION

Information collection, analysis, and dissemination are essential to avoid or minimize loss of life and property. The Forrest County E-911PSAPS located at the Forrest County Sheriff's Office, Hattiesburg Police Department, Petal Police Department, The University of Southern Mississippi, and AAA Ambulance (Medical Calls) are the designated 24 hour warning points for Forrest County operating 24 hours a day, seven days a week.

The Emergency Management District of Forrest County monitors, collects, and analyzes essential disaster information specifically as it relates to natural and man-made incidents throughout the county from various sources such as MEMA, NWS and MDPS. This information is utilized to alert citizens and local officials if a disaster is imminent or has occurred.

The information can be disseminated and communicated both manually and electronically through the following mechanisms:

- WebEOC® - Forrest County utilizes an electronic web based means of communication between Forrest County EMA and the SEOC. WebEOC® allows for continual communication of the ongoing situation and provides a means for the affected counties to request resources and monitor events taking place outside of their jurisdiction.

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

- Disaster Reports (DR) - Initial disaster reports (DR) provide initial damage assessments or current situations. DRs may be forwarded to the SEOC via WebEOC[®], e-mail, facsimile, the assigned MEMA Area Coordinator or the MS IMAT as a hardcopy.
- Facsimile - Allows copies of current situational status to be forwarded for collection by the Plans Section.
- Situation Reports (SITREPs) - May be forwarded via WebEOC[®], e-mail, facsimile, the assigned MEMA Area Coordinator or the MS IMAT.

When a disaster is imminent or has occurred, providing emergency information to the public and all levels of government is essential. MEMA dispatches Area Coordinators (ACs) to the county or counties threatened by or experiencing an emergency or disaster. The AC is responsible for assisting the counties in providing an on-going assessment of the situation, technical assistance, and coordinating local recommendations or resource requests to the SEOC. The information provided by the counties through the ACs will be incorporated in SITREPs and will be used to develop objectives for incident.

The ACs also assists counties in completing a disaster impact assessment to determine the necessary state response following any major or catastrophic disaster. One or more ACs may be deployed to evaluate immediate needs and report the findings to the SEOC. The MS IMAT, typically consisting of state personnel including area coordinators, will evaluate immediate victim needs (food, water, medical, shelter, etc.) and any impact to infrastructure (utilities, communications, transportation, etc.).

In the event the SEOC is not activated at the time of the disaster, information will be received from sources throughout the state via the SWP. The communications staff, in accordance with its internal SOG notifies the operational officer on duty. The Office of Response will notify state agencies, ESFs, and volunteer groups as required for further actions.

MEMA will activate the JIC to facilitate the flow of information and will utilize PIOs from other state agencies to support this function. Specific public information functions and program detail are outlined in ESF #15 and External Affairs SOG.

VI. COMMUNICATIONS

A. Local Warning Point

Forrest County operates several 24-hour emergency communication centers located at Forrest County Sheriff's Office, Hattiesburg Police Department, Petal Police Department, The University of Southern Mississippi, and AAA Ambulance (Medical Calls). They serve as the points to receive and disseminate information and warnings to governmental officials at all levels that a hazardous situation could threaten the general welfare, health, safety and/or property of the county's population.

B. Specialized Warning Point Communications Capabilities

Specialized warning point communication capabilities include:

- EOC telephone system
- Mississippi Wireless Integrated Network (MSWIN)
- Satellite phones
- Cellular phones
- Emergency Alert System (EAS)
- WebEOC®

C. Information Flow

At the Forrest County EOC disaster and non-disaster information will flow internally among various sources. Information received is disseminated and acted upon in accordance with the Communications SOG and ESF #2 guidance.

D. Communications Within A Disaster Area

Communications within the disaster area will require re-establishment or augmentation to provide verbal exchange between the local and state disaster officials. Assistance can be provided with the deployment of MEMA's MOBOPS.

E. Other Communications Augmentation Capabilities

Virtual-public activities, industry, commercial firms and amateur radio operators are capable of augmenting established communications systems.

F. Communications Maintenance

Agreements and contracts will be made to ensure equipment and system maintenance on a 24-hour-a-day basis. Alternate warning systems will be maintained and tested for use in the event

that the existing primary system is damaged and rendered inoperable. Maintenance and testing of all warning equipment is the responsibility of The Emergency Management District.

G. Back-up Communications Centers

- Forrest County EOC
- Mobile Command
- Forrest County SO
- Hattiesburg PD
- Petal PD
- AAA Ambulance Service

VII. ADMINISTRATION, FINANCE, and LOGISTICS

The Forrest County EMA Director, Deputy Director, and Administrative personnel are responsible for providing administrative, financial, and logistical support to the county EOC and its staff. Support includes, but is not limited to: supplying secretarial assistance and office equipment and supplies, arranging for feeding and sleeping accommodations, and providing other support as may be required to ensure a continuing long-term response and recovery operation.

A. Administration

County and city department heads as well as local elected officials are responsible for submission of reports involving their agency's response to an incident to The Emergency Management District.

Records and reports will be handled in the following manner:

- Heads of local agencies are responsible for submission of reports involving their agencies' response to an incident to the Forrest County EOC.
- Standard approved and accepted records of expenditures and obligations in emergency operations must be maintained by all local and state government entities employing their own bookkeeping procedures.
- All local and state government entities must meet all applicable local, state, federal, and special audit requirements.
- To supplement written records, local and State government entities are encouraged to maintain narrative and log type records of response actions as well as photographs and videos of "untouched damage."

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- MEMA will request reports from private relief agencies and other non-governmental organizations, when deemed necessary.
- Responsibility of submitting local government reports to the SEOC rests with the local chief executive through the local emergency management director who may delegate this function to the local government administrative or operations group.
- Local governments and state agencies will make reports to the SEOC by the most practical means, which include but are not limited to: Internet, telephone, or facsimile. Delivery of required reports will be supported by mail or hand delivered copy as needed.
- Damage reports (Initial, Situation, Damage Impact and Assessment and other follow-up reports as prescribed) are to be submitted to MEMA in accordance with the schedule of requirements for disaster reports.
- Other reports, either required or requested, will be submitted in accordance with established procedures for specific reports (Refer to ESF #5 for general reporting).
- Each agency or department is responsible for maintaining and recording documents affecting the organization and legal administration of emergency management functions. It is further the responsibility of local officials to ensure that all records are secure and protected from damage or destruction at all times.
- Local emergency operations plans must include provisions for protecting and preserving all legal documents of both a public and private nature in accordance with applicable state and local laws. This responsibility lies with county chancery clerk's offices and all other city and/ or town clerks as applicable.
- The State Historic Preservation Officer (SHPO) will be notified when the Governor declares that a state of emergency exists as the result of a disaster. The State Coordinating Officer (SCO) will consult with the SHPO concerning existing historic properties within the designated disaster area.

B. Finance

It is imperative that all jurisdictions or agencies receiving state or federal funding maintain adequate records, documentation, and accounting procedures due to the fact that all Public Assistance funding provided is subject to both state and federal audits.

C. Logistics

Forrest County is responsible for planning, coordinating, and managing the resource support needed in ESF #7. Equipment, supplies and personnel will first be addressed through existing support agencies' resources and local sources outside the impacted area. Additional support will be obtained through commercial sources. Resources outside disaster areas will be directed to fulfill unmet needs of local governments. Resources potentially could include staff, emergency relief supplies, shelters, office space, office equipment, office supplies,

telecommunications support, space for warehousing, mobilization center, staging area (SA), forward MS IMAT, and contracting services required to support immediate response activities. Resources are managed through the use of WebEOC[®] software maintained by MEMA.

All resource acquisition, deployment and management will be coordinated to obtain the maximum benefit possible in accordance with ESF #7 Logistics Management and Resource Support.

MAAs and memoranda of understanding (MOU) are essential components of emergency management planning, response, and recovery activities. These agreements provide reciprocal emergency aid and assistance during an emergency or disaster. They can increase available resources and improve response and recovery efforts. These agreements may occur intrastate or interstate.

1. Mutual Aid Agreements (MAAs) - Intrastate

MS Code Ann. § 33-15-19 (a) (1972), as amended, authorizes the state and its political subdivisions to develop and enter into MAAs for reciprocal emergency aid and assistance in case of emergencies too extensive to be dealt with unassisted.

The Statewide Mutual Aid Compact (SMAC) began in 1995 by MEMA to provide more effective use of resources in times of disaster. It provides a way for municipalities and counties to request and receive help from each other when local resources are exhausted. Most counties already have some type of MAA with their neighboring counties to provide assistance during emergencies. However, these local agreements may not be sufficient when a disaster strikes a large area. Neighboring jurisdictions may all need assistance. The SMAC provides a mechanism for assistance to come from different parts of the state. It addresses the issues of liability, compensation, direction and control in a uniform manner. SMAC allows members of the compact to have an MAA with both the state and other compact members.

When a participating government either becomes affected by or is under imminent threat of a major disaster it may request emergency-related MAA either by:

- Proclaiming a local emergency and transmitting a copy of that proclamation along with a completed Part I Identification of Need (Form REQ-A) to the participating agency or
- Orally communicating a request for mutual aid assistance to the participating government, or to MEMA, followed as soon as practicable by written confirmation of said request.

Mutual aid can be requested only when resources available within the stricken area are deemed inadequate. Municipalities must coordinate requests for state or federal assistance with their county emergency management agencies.

In order to provide the most effective mutual aid possible, the SMAC also intends to foster communications between the personnel of participating governments through visits, compilation of asset inventories, exchange of information, and development of plans and procedures.

VIII. PLAN DEVELOPMENT AND MAINTENANCE

Forrest County is responsible for maintaining a comprehensive countywide program of emergency management. The agency is responsible for coordination with the efforts of the state government, with other departments and agencies of local government, and with city and municipal governments and school boards and with non-profit organizations and private agencies that have a role in emergency management. MS Code Ann. § 33-15-14(1) (1972).

A. Plan Development

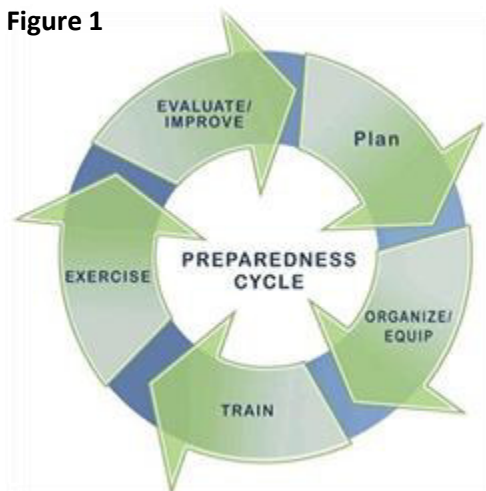
The process for developing the 2016 version of this document was initiated and managed by Forrest County, as stipulated by law and was based on the existing CEMP, with updates reflecting state and federal requirements, as well as other germane state and federal guidance on emergency operations planning, particularly as it relates to homeland security issues.

This plan was developed based on state and federal guidance provided through NIMS, NRF, the FEMA Comprehensive Preparedness Guide (CPG) 101, Version 2.0, the Presidential Policy Directive – 8 (PPD/8), the Homeland Security National Preparedness Goal, The Stafford Act and the Post-Katrina Emergency Management Reform Act (PKEMRA).

As directed by the NRF the plan is based on six essential activities for responding to an incident: plan, organize, train, equip, exercise and evaluate and improve.

Figure 1: This “preparedness cycle” is one element of a broader National Preparedness System to prevent, respond to, recover from, and mitigate against natural disasters, acts of terrorism,

Figure 1



1. Plan

Planning makes it possible to manage the entire life cycle of a potential crisis, determine capability requirements and help stakeholders learn their roles.

2. Organize

Organizing to execute response activities includes developing an overall organizational structure, strengthening leadership at each level and assembling well-qualified teams of paid and volunteer staff for essential response and recovery tasks. This includes utilizing the whole community and individual resources, emergency support functions, pre-scripted mission assignments, advanced readiness contracting and pre-positioned resources.

3. Train

Building essential response capabilities requires a systematic program to train individual teams and organizations - to include governmental, nongovernmental, private-sector, individuals, communities, faith-based organizations and federal, state and local governments.

4. Equip

Local, tribal, state and federal jurisdictions need to establish a common understanding of the capabilities of distinct types of response equipment.

5. Exercise

Exercises provide opportunities to test plans and improve proficiency in a risk-free environment.

6. Evaluate and Improve

All local, tribal, state and federal entities should institute a corrective action program to evaluate exercise participation and response, capture lessons learned and make improvements in their response capabilities.

B. Plan Maintenance

This plan will be exercised on an annual basis to evaluate the ability of the county and its municipalities to respond to minor, major and catastrophic disasters and support local emergency management agencies. Exercises will be coordinated with the state exercise coordinator. Directors of primary county agencies have the responsibility for maintaining SOGs and Standard Operating Procedures (SOPs), checklists, internal plans and resource data to ensure a prompt and effective response to a disaster in support of this plan. For training purposes and exercises, the EMA Director may activate this plan as deemed necessary to ensure a high level of operational readiness.

This plan will be reviewed by Forrest County on a biennial basis. The review will include testing, review and update of the document and its procedures. This plan will be updated periodically as required, to incorporate new presidential or state directives, legislative changes and procedural changes based on lessons learned from exercises and actual incidents.

Forrest County EMA is responsible for coordinating updates and modifications, as well as changes to the ESF annexes, appendices, SOGs and SOPs. Such recommendations should be forwarded to the Forrest EMA Director through official correspondence, or may be initiated

at the periodic CEMP review. Heads of local agencies with ESF coordinator responsibility will provide information periodically as to changes with available resources, personnel and operating procedures.

All agencies will be responsible for the development and maintenance of their respective segments of the plan.

This plan applies to all state agencies, state boards, state commissions and state departments assigned emergency responsibilities and to all elements of local government in accordance with current law and Executive Orders (EOs).

IX. AUTHORITIES AND REFERENCES

The following authorities and references may be consulted for further advice and guidance. Other than those references and authorities that have the inherent force and effect of law, this plan is not intended to incorporate them by reference.

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E.O. 573, March 3, 1987; Mississippi Emergency Response Commission

E.O. 653, November 16, 1990, et.seq; Emergency Management Responsibilities

E.O. 872, January 3, 2003; Establishment of the Homeland Security Council

E.O. 874, February 5, 2003; Establishment of the State Interoperability Executive Committee (the "SIEC")

E.O. 916, January 28, 2004; Homeland Security Council Restructuring

E.O. 920, August 4, 2004; State Interoperability Executive Committee Restructuring

E.O. 932, March 28, 2005; Designation of National Incident Management Systems (NIMS) For Incident Management

Other applicable MS laws refer to “Compendium of Legislation” found in Mississippi Administrative Plan

B. Federal

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Federal Emergency Management Agency “A Whole Community Approach to Emergency Management: Principles, Themes and Pathways for Action” FDOC 104-0080-1/December 2011

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- National Oceanic and Atmospheric Administration (NOAA). "Mississippi Earthquake History." Web. <<http://earthquake.usgs.gov/earthquakes/states/mississippi/history.php>>.
- Post-Katrina Emergency Management Reform Act of 2006 (PKEMRA)
- U.S. Department of Homeland Security. "Critical Infrastructure Identification, Prioritization and Protection." *Homeland Security Presidential Directive 7*. N.p., 2003. Print.
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E.O. 13311, July 29, 2003, Homeland Security Information Sharing

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E.O. 13354, August 27, 2004, National Counterterrorism Center

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X. APPENDICES

A. List of Acronyms

B. Glossary

Appendix A (List of Acronyms)

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

AC	Area Coordinator
ADA	Americans with Disabilities Act
AR	Authorized Representative
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEMP	Comprehensive Emergency Management Plan
CERT	Community Emergency Response Team
COG	Continuity of Government
COOP	Continuity of Operations
CPG	Comprehensive Preparedness Guide
CRTC	Combat Readiness Training Center
CSG	Council of State Governments
DC	Designated Contact
DFA	Department of Finance
DFO	Disaster Field Office
DHS	Department of Homeland Security
DR	Disaster Reports
DOT	Department of Transportation
DRC	Disaster Recovery Center
DSCA	Defense Support of Civil Authorities
EAS	Emergency Alert System
ECO	Emergency Coordinating Officers
EO	Executive Order
EOC	Emergency Operations Center
EMAC	Emergency Management Assistance Compact
EPA	Environmental Protection Agency
EPR	Emergency Preparedness and Response

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ERT	Environmental Response Team (EPA)
ESF	Emergency Support Function
FCC	Federal Communications Commission
FCO	Federal Coordinating Officer
FEMA	Federal Emergency Management Agency
FNS	Food and Nutrition Service
FRC	Federal Resource Coordinator
GAR	Governor's Authorized Representative
HF	High Frequency
HHS	Health and Human Services
HAZMAT	Hazardous Materials
HSPD	Homeland Security Presidential Directive
IAP	Incident Action Report
IC	Incident Command
ICP	Incident Command Post
ICS	Incident Command System
IFG	Individual and Family Grant Program
JFO	Joint Field Office
JIC	Joint Information Center
JIS	Joint Information System
JOC	Joint Operations Center
JUC	Joint Unified Command
MAA	Mutual Aid Agreement
MC	Mobilization Center
MACC	Multi-agency Command Center
MATTS	Mobile Air Transportable Telecommunications System

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MEMA	Mississippi Emergency Management Agency
MERS	Mobile Emergency Response Support
MOBOPS	Mobile Operations Center
MOU	Memoranda of Understanding
MS	Mississippi
MS IMAT	Mississippi Incident Management Assistance Team
NAWAS	National Alert Warning System
NCG	National Coordination Group (EMAC)
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NGO	Non-governmental Organization
NCT	National Coordinating Team (EMAC)
NDMS	National Disaster Medical System
NEOC	National Emergency Operations Center (EMAC)
NEMA	National Emergency Management Association
NGO	Nongovernmental Organization
NIMS	National Incident Management System
NMSZ	New Madrid Seismic Zone
NRCC	National Response Coordination Center
NRF	National Response Framework
NSSE	National Special Security Event
OHL	Operational Hotline
OSC	On-Scene Coordinator
PA	Public Assistance
PFO	Principal Federal Official
PIO	Public Information Officer
RCP	Regional Contingency Plan

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RCT	Regional Coordination Team
RRCC	Regional Response Coordination Center
RRP	Regional Response Plan
RRT	Regional Response Team
SA	Staging Area
SCO	State Coordinating Officer
SEOC	State Emergency Operations Center
SESC	State Earthquake Support Center
SFHA	Special Flood Hazard Areas
SFO	Senior Federal Official
SHPO	State Historical Preservation Officer
SHSC	State Hurricane Support Center
SITREPS	Situation Reports
SLO	State Liaison Officer
SMAC	Statewide Mutual Aid Compact
SOG	Standard Operating Guideline
SOP	Standard Operating Procedure
SWP	State Warning Point
TEMD	The Emergency Management District
UC	Unified Command
USCG	U.S. Coast Guard
USGS	U.S. Geological Survey

Mississippi State Agencies Acronyms

ARC, MS	American Red Cross, Mississippi Chapter
CAP	Civil Air Patrol

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MACPA/MARL	Mississippi Animal Control and Protection Association/Mississippi Animal Rescue League
MBAH	Mississippi Board of Animal Health
MBVME	Mississippi Board of Veterinary Medical Examiners
MCES	Mississippi Cooperative Extension Services
MDA	Mississippi Development Authority
MDA/ED	Mississippi Development Authority/Energy Division
MDAC	Mississippi Department of Agriculture and Commerce
MDAH	Mississippi Department of Archives and History
MDE	Mississippi Department of Education
MDEQ	Mississippi Department of Environmental Quality
MDEQ/WWD	Mississippi Department of Environmental Quality/Wastewater Division
MDES	Mississippi Department of Employment Security
MDFA	Mississippi Department of Finance and Administration
MDHS	Mississippi Department of Human Services
MDHS/AAS	Mississippi Department of Human Services/Aging and Adult Services
MDITS	Mississippi Department of Information Technology Services
MDMH	Mississippi Department of Mental Health
MDMH/MR	Mississippi Department of Mental Health and Mental Retardation
MDMR	Mississippi Department of Marine Resources
MDOC	Mississippi Department of Corrections
MDOI	Mississippi Department of Insurance
MDoM	Mississippi Division of Medicaid
MDOT	Mississippi Department of Transportation
MDPS	Mississippi Department of Public Safety
MDPS/MHSP	Mississippi Department of Public Safety/Mississippi Highway Safety Patrol

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MDRS	Mississippi Department of Rehabilitation Services
MDRS/VR	Mississippi Department of Rehabilitation Services/Vocational Rehabilitation
MDWF&P	Mississippi Department of Wildlife, Fisheries and Parks
MEMA	Mississippi Emergency Management Agency
MFC	Mississippi Forestry Commission
MGC	Mississippi Gaming Commission
MHSP	Mississippi Highway Safety Patrol
MMD	Mississippi Military Department
MMD-AGO	Mississippi Military Department/Office of the Adjutant General
MMD-CFMO	Mississippi Military Department/Construction and Facilities Management Office
MMD/NG	Mississippi Military Department/National Guard
MPB	Mississippi Public Broadcasting
MPSC	Mississippi Public Service Commission
MPSC/PUS	Mississippi Public Service Commission/Public Utilities Staff
MSBCJC	Mississippi Board of Community and Junior Colleges
MSBML	Mississippi Board of Medical Licensure
MSBN	Mississippi Board of Nursing
MSBP	Mississippi Board of Pharmacy
MSDH	Mississippi Department of Health
MSDH/EMS	Mississippi Department of Health/Emergency Medical Services
MSDH/WSD	Mississippi Department of Health/Water Supply Division
MSFA	Mississippi State Fire Academy
MSFMO	Mississippi Fire Marshall's Office
MSIHL	Mississippi Institutions of Higher Learning
MSNG	Mississippi National Guard
MSOGB	Mississippi Oil and Gas Board

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

MSOHS	Mississippi Office of Homeland Security
MSPB	Mississippi State Personnel Board
MSU/CVM	Mississippi State University/College of Veterinary Medicine
MSVOAD	Mississippi Volunteer Organizations Active in Disaster
MVDL	Mississippi Veterinary Diagnostic Laboratory
MVMA	Mississippi Veterinary Medical Association
NWS	National Weather Service
OAG	Office of the Attorney General
OG	Office of the Governor
OME	Office of the Medical Examiner
OSA/DoA	Office of the State Auditor/Department of Audit
RACES	Radio Amateur Communication Emergency Services
SA	Salvation Army
SOS	Office of the Secretary of State
STC	State Tax Commission
STC/ABC	State Tax Commission/Alcoholic Beverage Control Division
UMMC	University Mississippi Medical Center
UMMC/SH	University Mississippi Medical Center/ and/or other State Hospitals
USGS	United States Geological Society

Appendix B (Glossary)

Accountable Property. Property that: 1) has an acquisition cost that is \$15,000 or more; 2) has a unique, identifiable serial number (e.g., computer or telecommunications equipment); and 3) is considered “sensitive” (i.e., easily pilferable), such as cellular phones, pagers and laptop computers.

Agency. A division of government with a specific function offering a particular kind of assistance. In ICS, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance).

Agency Representative. A person assigned by a primary, assisting, or cooperating Federal, State, local, or tribal government agency or private entity that has been delegated authority to make decisions affecting that agency’s or organization’s participation in incident management activities following appropriate consultation with the leadership of that agency.

Area Command (Unified Area Command). An organization established (1) to oversee the management of multiple incidents that are each being handled by an ICS organization or (2) to oversee the management of large or multiple incidents to which several Incident Management Teams have been assigned. Area Command has the responsibility to set overall strategy and priorities, allocate critical resources according to priorities, ensure that incidents are properly managed and ensure that objectives are met and strategies followed. Area Command becomes Unified Area Command when incidents are multi-jurisdictional. Area Command may be established at an EOC facility or at some location other than an ICP.

Available Resources. Resources assigned to an incident, checked in and available for use, normally located in a Staging Area.

Awareness. The continual process of collecting, analyzing and disseminating intelligence, information and knowledge to allow organizations and individuals to anticipate requirements and to react effectively.

Casualty. Any person who is declared dead or is missing, ill, or injured.

Catastrophic Incident. Any natural or man-made incident, including terrorism, which results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale and/or government functions. A catastrophic event could result in sustained national impacts over a prolonged period of time; almost immediately exceeds resources normally available to state, local, tribal and private-sector authorities in the impacted area; and significantly interrupts governmental operations and emergency services to such an extent that national security could be threatened. All catastrophic events are Incidents of National Significance.

Chain of Command. A series of command, control, executive, or management positions in hierarchical order of authority.

Civil Transportation Capacity. The total quantity of privately owned transportation services, equipment, facilities and systems from all transportation modes nationally or in a prescribed area or region.

Coastal Zone. As defined by the NCP, means all U.S. waters subject to tide, U.S. waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other water of the high seas subject to the NCP and the land surface or land substrata, ground waters and ambient air proximal to those waters. The term “coastal zone” delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in RCPs.

Command Staff. In an incident management organization, the Command Staff consists of the Incident Command and the special staff positions of Public Information Officer, Safety Officer, Liaison Officer and other positions as required, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.

Community Recovery. In the context of the NRF and its annexes, the process of assessing the effects of an Incident of National Significance, defining resources and developing and implementing a course of action to restore and revitalize the socioeconomic and physical structure of a community.

Consequence Management. Predominantly an emergency management function and included measures to protect public health and safety, restore essential government services and provide emergency relief to governments, businesses and individuals affected by the consequences of terrorism. The requirements of consequence management and crisis management are combined in the NRF. See also **Crisis Management**.

Credible Threat. A potential terrorist threat that, based on a threat assessment, is credible and likely to involve WMD.

Crisis Management. Predominantly a law enforcement function and included measures to identify, acquire and plan the use of resources needed to anticipate, prevent and/or resolve a threat or act of terrorism. The requirements of consequence management and crisis management are combined in the NRF. See also **Consequence Management**.

Critical Infrastructures. Systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters.

Cultural Resources. Cultural resources include historic and prehistoric structures, archeological sites, cultural landscapes and museum collections.

Cyber. Pertaining to computers and their support systems, such as servers, routers and switches, which support critical infrastructure.

Defense Support of Civil Authorities (DSCA). Refers to DOD support, including federal military forces, DOD civilians and DOD contractor personnel and DOD agencies and components, for domestic emergencies and for designated law enforcement and other activities.

Deputy. A fully qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a deputy could act as relief for a

superior and therefore must be fully qualified in the position. Deputies can be assigned to the Incident Commander, general staff and branch directors.

Disaster. See **Major Disaster**.

Disaster Recovery Center (DRC). A facility established in a centralized location within or near the disaster area at which disaster victims (individuals, families, or businesses) apply for disaster aid.

District Response Group. Established in each DHS/USCG District, the District Response Group is primarily responsible for providing the OSC technical assistance, personnel and equipment during responses typically involving marine zones.

Emergency. As defined by the Stafford Act, an emergency is “any occasion or instance for which, in the determination of the President, federal assistance is needed to supplement state and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.”

Emergency Operations Center (EOC). The physical location at which the coordination of information and resources to support domestic incident management activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement and medical services), by jurisdiction (e.g., Federal, State, regional, county, city, tribal), or by some combination thereof.

Emergency Operations Plan (EOP). The “steady-state” plan maintained by various jurisdictional levels for managing a wide variety of potential hazards.

Emergency Public Information. Information that is disseminated primarily in anticipation of an emergency or during an emergency. In addition to providing situational information to the public, it also frequently provides directive actions required to be taken by the general public.

Emergency Response Provider. Includes federal, state, local and tribal emergency public safety, law enforcement, emergency response, emergency medical (including hospital emergency facilities) and related personnel, agencies and authorities. (See section 2(6), Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135 (2002).) Also known as “emergency responder.”

Emergency Support Function (ESF). A grouping of government and certain private-sector capabilities into an organizational structure to provide the support, resources, program implementation and services that are most likely to be needed to save lives, protect property and the environment, restore essential services and critical infrastructure and help victims and communities return to normal, when feasible, following domestic incidents. The ESFs serve as the primary operational-level mechanism to provide assistance to State, local and tribal governments or to federal departments and agencies conducting missions of primary federal responsibility.

Environment. Natural and cultural resources and historic properties as those terms are defined in this glossary and in relevant laws.

Environmental Response Team. Established by EPA, the Environmental Response Team includes expertise in biology, chemistry, hydrology, geology and engineering. The Environmental Response Team provides technical advice and assistance to the OSC for both planning and response to discharges and releases of oil and hazardous substances into the environment.

Evacuation. Organized, phased and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas and their reception and care in safe areas.

Facility Management. Facility selection and acquisition, building services, information systems, communications, safety and health and physical security.

Federal. Of or pertaining to the Federal Government of the United States of America.

Federal Coordinating Officer (FCO). The federal officer who is appointed to manage federal resource support activities related to Stafford Act disasters and emergencies. The FCO is responsible for coordinating the timely delivery of federal disaster assistance resources and programs to the affected state and local governments, individual victims and the private sector.

Federal On-Scene Coordinator (FOSC or OSC). The federal official pre-designated by the EPA or the USCG to coordinate responses under subpart D of the NCP, or the government official designated to coordinate and direct removal actions under subpart E of the NCP.

Federal Resource Coordinator (FRC). The federal official appointed to manage federal resource support activities related to non-Stafford Act incidents. The FRC is responsible for coordinating support from other federal departments and agencies using interagency agreements and MOUs.

First Responder. Local and nongovernmental police, fire and emergency personnel who in the early stages of an incident are responsible for the protection and preservation of life, property, evidence and the environment, including emergency response providers as defined in section 2 of the Homeland Security Act of 2002 (6 U.S.C. 101), as well as emergency management, public health, clinical care, public works and other skilled support personnel (such as equipment operators) who provide immediate support services during prevention, response and recovery operations. First responders may include personnel from federal, state, local, tribal, or nongovernmental organizations.

Hazard. Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.

Hazard Mitigation. Any cost-effective measure, which will reduce the potential for damage to a facility from a disaster event.

Hazardous Material. For the purposes of ESF #1, hazardous material is a substance or material, including a hazardous substance, that has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety and property when transported in commerce and which has been so designated (see 49 CFR 171.8). For the purposes of ESF #10 and the Oil and Hazardous Materials Incident Annex, the term is intended to mean hazardous substances, pollutants and contaminants as defined by the NCP.

Hazardous Substance. As defined by the NCP, any substance designated pursuant to section 311(b)(2)(A) of the Clean Water Act; any element, compound, mixture, solution, or substance designated pursuant to section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act (42 U.S.C. § 6901 et seq.) has been suspended by act of Congress); any toxic pollutant listed under section 307(a) of the Clean Water Act; any hazardous air pollutant listed under section 112 of the Clean Air Act (42 U.S.C. § 7521 et seq.); and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act (15 U.S.C. § 2601 et seq.).

Historic Property. Any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places, including artifacts, records and remains which are related to such district, site, building, structure, or object [16 U.S.C. § 470(w)(5)].

Incident. An occurrence or event, natural or human caused, which requires an emergency response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, wild land and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, war-related disasters, public health and medical emergencies and other occurrences requiring an emergency response.

Incident Action Plan. An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods.

Incident Command Post (ICP). The field location at which the primary tactical-level, on-scene incident command functions are performed. The ICP may be collocated with the incident base or other incident facilities and is normally identified by a green rotating or flashing light.

Incident Command System (ICS). A standardized on-scene emergency management construct specifically designed to provide for the adoption of an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures and communications operating with a common organizational structure, designed to aid in the management of resources during incidents. ICS is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, or organized field-level incident management operations.

Incident Commander (IC). The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

Incident Management Team (IMT). The Incident Commander and appropriate command and general staff personnel assigned to an incident.

Incident Management Assistance Team (IMAT) – Are full-time, rapid-response teams with dedicated staff able to deploy within two hours and arrive at an incident within 12 hours to support the local incident commander. The teams support the initial establishment of a unified command and provide situational awareness for federal and state decision-makers crucial to determining the level and type of immediate federal support that may be required.

Incident Mitigation. Actions taken during an incident designed to minimize impacts or contain the damages to property or the environment.

INFORM. Electronic, web-based alert and notification system specifically used to notify Offsite Response Organizations (ORO) with the responsibility of managing incidents at Grand Gulf Nuclear Station (GGNS).

Information Officer. See **Public Information Officer**.

Infrastructure. The man-made physical systems, assets, projects and structures, publicly and/or privately owned, that are used by or provide benefit to the public. Examples of infrastructure include utilities, bridges, levees, drinking water systems, electrical systems, communications systems, dams, sewage systems and roads.

Infrastructure Liaison. Assigned by DHS, the Infrastructure Liaison serves as the principal advisor to the JFO Coordination Group regarding all national- and regional-level critical infrastructure and key resources incident-related issues.

Initial Actions. The actions taken by those responders first to arrive at an incident site.

Initial Response. Resources initially committed to an incident.

Joint Field Office (JFO). A temporary federal facility established locally to provide a central point for federal, state, local and tribal executives with responsibility for incident oversight, direction and/or assistance to effectively coordinate protection, prevention, preparedness, response and recovery actions. The JFO will combine the traditional functions of the JOC, the FEMA DFO and the JIC within a single federal facility.

Joint Information Center (JIC). A facility established to coordinate all incident-related public information activities. It is the central point of contact for all news media at the scene of the incident. Public information officials from all participating agencies should collocate at the JIC.

Joint Operations Center (JOC). The JOC is the focal point for all federal investigative law enforcement activities during a terrorist or potential terrorist incident or any other significant criminal incident and is managed by the SFLEO. The JOC becomes a component of the JFO when the NRF is activated.

Joint Unified Command (JUC). The JUC links the organizations responding to the incident and provides a forum for these entities to make consensus decisions. Under the JUC, the various jurisdictions

and/or agencies and non-government responders may blend together throughout the operation to create an integrated response team.

At the state level, the State of Mississippi has adopted a Joint Unified Command structure for incident management. This organizational framework places a state official side-by-side with a federal official at the section, division and branch level, as the situation warrants these levels of organization.

Jurisdiction. A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authorities. Jurisdictional authority at an incident can be political or geographical (e.g., city, county, tribal, state, or federal boundary lines) or functional (e.g., law enforcement, public health).

Liaison Officer. A member of the command staff responsible for coordinating with representatives from cooperating and assisting agencies.

Local Government. A county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under state law), regional or interstate government entity, or agency or instrumentality of a local government; an Indian tribe or authorized tribal organization or, in Alaska, a Native Village or Alaska Regional Native Corporation; or a rural community, unincorporated town or village, or other public entity. (As defined in section 2(10) of the Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135, et seq. (2002).)

Long-Range Management Plan. Used by the FCO and management team to address internal staffing, organization and team requirements.

Major Disaster. As defined by the Stafford Act, any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought) or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this act to supplement the efforts and available resources of states, local governments and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

Materiel Management. Requisitioning and sourcing (requirements processing); acquisition, asset visibility (resource tracking), receipt, storage and handling; security and accountability; inventory, deployment, issue and distribution; and recovery, reuse and disposition.

Mission Assignment. The vehicle used by DHS/EPR/FEMA to support federal operations in a Stafford Act major disaster or emergency declaration. It orders immediate, short-term emergency response assistance when an applicable state or local government is overwhelmed by the event and lacks the capability to perform, or contract for, the necessary work.

Mitigation. Activities designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident. Mitigation measures may be implemented prior to, during, or after an incident. Mitigation measures are often developed in accordance with lessons learned

from prior incidents. Mitigation involves ongoing actions to reduce exposure to, probability of, or potential loss from hazards. Measures may include zoning and building codes, floodplain buyouts and analysis of hazard-related data to determine where it is safe to build or locate temporary facilities. Mitigation can include efforts to educate governments, businesses and the public on measures they can take to reduce loss and injury.

Mobilization. The process and procedures used by all organizations—federal, state, local and tribal—for activating, assembling and transporting all resources that have been requested to respond to or support an incident.

Mobilization Center. An off-site temporary facility at which response personnel and equipment are received from the point of arrival and are pre-positioned for deployment to an incident logistics base, to a local staging area, or directly to an incident site, as required. A mobilization center also provides temporary support services, such as food and billeting, for response personnel prior to their assignment, release, or reassignment and serves as a place to out-process following demobilization while awaiting transportation.

Multi-agency Command Center (MACC). An interagency coordination center established by DHS/USSS during NSSEs as a component of the JFO. The MACC serves as the focal point for interagency security planning and coordination, including the coordination of all NSSE-related information from other intra-agency centers (e.g., police command posts, Secret Service security rooms) and other interagency centers (e.g., intelligence operations centers, joint information centers).

Multi-agency Coordination Entity. Functions within a broader multi-agency coordination system. It may establish priorities among incidents and associated resource allocations, deconflict agency policies and provide strategic guidance and direction to support incident management activities.

Multi-agency Coordination System. Provides the architecture to support coordination for incident prioritization, critical resource allocation, communications systems integration and information coordination. The components of multi-agency coordination systems include facilities, equipment, EOCs, specific multi-agency coordination entities, personnel, procedures and communications. The systems assist agencies and organizations to fully integrate the subsystems of NIMS.

Multi-jurisdictional Incident. An incident requiring action from multiple agencies that each have jurisdiction to manage certain aspects of an incident. In ICS, these incidents will be managed under Unified Command.

Mutual Aid Agreement. Written agreement between agencies, organizations and/or jurisdictions that they will assist one another on request by furnishing personnel, equipment and/or expertise in a specified manner.

National Counterterrorism Center (NCTC). The NCTC serves as the primary federal organization for analyzing and integrating all intelligence possessed or acquired by the U.S. Government pertaining to terrorism and counterterrorism, excepting purely domestic counterterrorism information. The NCTC may, consistent with applicable law, receive, retain and disseminate information from any Federal, State, or local government or other source necessary to fulfill its responsibilities.

National Disaster Medical System (NDMS). A coordinated partnership between DHS, HHS, DOD and the Department of Veterans Affairs established for the purpose of responding to the needs of victims of a public health emergency. NDMS provides medical response assets and the movement of patients to health care facilities where definitive medical care is received when required.

National Incident Management System (NIMS). A system mandated by HSPD-5 that provides a consistent, nationwide approach for Federal, State, local and tribal governments; the private sector; and NGOs to work effectively and efficiently together to prepare for, respond to and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among federal, state, local and tribal capabilities, the NIMS includes a core set of concepts, principles and terminology. HSPD-5 identifies these as the ICS; multi-agency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the collection, tracking and reporting of incident information and incident resources.

National Infrastructure Coordinating Center (NICC). Managed by the DHS Information Analysis and Infrastructure Protection Directorate, the NICC monitors the Nation's critical infrastructure and key resources on an ongoing basis. In the event of an incident, the NICC provides a coordinating vehicle to share information with critical infrastructure and key resources information-sharing entities.

National Interagency Coordination Center (NICC). The organization responsible for coordinating allocation of resources to one or more coordination centers or major fires within the Nation. Located in Boise, ID.

Natural Resources. Natural resources include land, fish, wildlife, domesticated animals, plants, biota and water. Water means salt and fresh water, surface and ground water, including water used for drinking, irrigation, aquaculture and recreational purposes, as well as in its capacity as fish and wildlife habitat, including coral reef ecosystems as defined in 16 U.S.C. 64501. Land means soil, surface and subsurface minerals and other terrestrial features.

National Response Center. A national communications center for activities related to oil and hazardous substance response actions. The National Response Center, located at DHS/USCG Headquarters in Washington, DC, receives and relays notices of oil and hazardous substances releases to the appropriate Federal OSC.

National Response System. Pursuant to the NCP, the mechanism for coordinating response actions by all levels of government (40 CFR § 300.21) for oil and hazardous substances spills and releases.

National Response Team (NRT). The NRT, comprised of the 16 federal agencies with major environmental and public health responsibilities, is the primary vehicle for coordinating federal agency activities under the NCP. The NRT carries out national planning and response coordination and is the head of a highly organized federal oil and hazardous substance emergency response network. EPA serves as the NRT Chair and DHS/USCG serves as Vice Chair.

National Special Security Event (NSSE). A designated event that, by virtue of its political, economic, social, or religious significance, may be the target of terrorism or other criminal activity.

Nongovernmental Organization (NGO). A nonprofit entity that is based on interests of its members, individuals, or institutions and that is not created by a government, but may work cooperatively with government. Such organizations serve a public purpose, not a private benefit. Examples of NGOs include faith-based charity organizations and the American Red Cross.

Operational Hotline. Telephone network connecting the control room at GGNS to the OROs with the responsibility of managing an on-site incident.

On-Scene Coordinator (OSC). See **Federal On-Scene Coordinator**.

Pollutant or Contaminant. As defined in the NCP, includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions, or physical deformations in such organisms or their offspring.

Preparedness. The range of deliberate, critical tasks and activities necessary to build, sustain and improve the operational capability to prevent, protect against, respond to and recover from domestic incidents. Preparedness is a continuous process involving efforts at all levels of government and between government and private-sector and nongovernmental organizations to identify threats, determine vulnerabilities and identify required resources.

Prevention. Actions taken to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions taken to protect lives and property. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.

Principal Federal Official (PFO). The federal official designated by the Secretary of Homeland Security to act as his/her representative locally to oversee, coordinate and execute the Secretary's incident management responsibilities under HSPD-5 for Incidents of National Significance.

Private Sector. Organizations and entities that are not part of any governmental structure. Includes for-profit and not-for-profit organizations, formal and informal structures, commerce and industry, private emergency response organizations and private voluntary organizations.

Public Assistance Program. The program administered by FEMA that provides supplemental federal disaster grant assistance for debris removal and disposal, emergency protective measures and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain private nonprofit organizations.

FORREST COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

Public Health. Protection, safety, improvement and interconnections of health and disease prevention among people, domestic animals and wildlife.

Public Information Officer (PIO). A member of the Command Staff responsible for interfacing with the public and media or with other agencies with incident related information requirements.

Public Works. Work, construction, physical facilities and services provided by governments for the benefit and use of the public.

Recovery. The development, coordination and execution of service- and site-restoration plans for impacted communities and the reconstitution of government operations and services through individual, private-sector, nongovernmental and public assistance programs that: identify needs and define resources; provide housing and promote restoration; address long-term care and treatment of affected persons; implement additional measures for community restoration; incorporate mitigation measures and techniques, as feasible; evaluate the incident to identify lessons learned; and develop initiatives to mitigate the effects of future incidents.

Resources. Personnel and major items of equipment, supplies and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or at an EOC.

Response. Activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property and meet basic human needs. Response also includes the execution of emergency operations plans and of incident mitigation activities designed to limit the loss of life, personal injury, property damage and other unfavorable outcomes. As indicated by the situation, response activities include: applying intelligence and other information to lessen the effects or consequences of an incident; increased security operations; continuing investigations into the nature and source of the threat; ongoing public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and specific law enforcement operations aimed at preempting, interdicting, or disrupting illegal activity and apprehending actual perpetrators and bringing them to justice.

Senior Federal Official (SFO). An individual representing a federal department or agency with primary statutory responsibility for incident management. SFOs utilize existing authorities, expertise and capabilities to aid in management of the incident working in coordination with other members of the JFO Coordination Group.

Situation Assessment. The evaluation and interpretation of information gathered from a variety of sources (including weather information and forecasts, computerized models, GIS data mapping, remote sensing sources, ground surveys, etc.) that, when communicated to emergency managers and decision makers, can provide a basis for incident management decision-making.

State. Any state of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands and any possession of the United States. (As defined in section 2(14) of the Homeland Security Act of 2002,

Public Law 107-296, 116 Stat. 2135, et seq. (2002).)

Strategic. Strategic elements of incident management are characterized by continuous, long-term, high-level planning by organizations headed by elected or other senior officials. These elements involve the adoption of long-range goals and objectives, the setting of priorities, the establishment of budgets and other fiscal decisions, policy development and the application of measures of performance or effectiveness.

Strategic Plan. A plan that addresses long-term issues such as impact of weather forecasts, time-phased resource requirements and problems such as permanent housing for displaced disaster victims, environmental pollution and infrastructure restoration.

Telecommunications. The transmission, emission, or reception of voice and/or data through any medium by wire, radio, other electrical electromagnetic, or optical means. Telecommunications includes all aspects of transmitting information.

Terrorism. Any activity that (1) involves an act that (a) is dangerous to human life or potentially destructive of critical infrastructure or key resources; and (b) is a violation of the criminal laws of the United States or of any state or other subdivision of the United States; and (2) appears to be intended (a) to intimidate or coerce a civilian population; (b) to influence the policy of a government by intimidation or coercion; or (c) to affect the conduct of a government by mass destruction, assassination, or kidnapping.

Threat. An indication of possible violence, harm, or danger.

Transportation Management. Transportation prioritizing, ordering, sourcing and acquisition; time phasing plans; fleet management; and movement coordination and tracking.

Tribe. Any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native Village as defined in or established pursuant to the Alaskan Native Claims Settlement Act (85 Stat. 688) [43 U.S.C.A. and 1601 et seq.], that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

Unaffiliated Volunteer. An individual who is not formally associated with a recognized voluntary disaster relief organization; also known as a “spontaneous” or “emergent” volunteer.

Unified Command. An application of ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish their designated Incident Commanders at a single ICP and to establish a common set of objectives and strategies and a single Incident Action Plan.

United States. The term “United States,” when used in a geographic sense, means any state of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, any possession of the United States and any waters within the jurisdiction of the United States. (As defined in section 2(16) of the Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135, et seq. (2002).)

Unsolicited Goods. Donated items offered by and/or sent to the incident area by the public, the private sector, or other source, that have not been requested by government or nonprofit disaster relief coordinators.

Urban Search and Rescue. Operational activities that include locating, extricating and providing on-site medical treatment to victims trapped in collapsed structures.

Volunteer. Any individual accepted to perform services by an agency that has authority to accept volunteer services when the individual performs services without promise, expectation, or receipt of compensation for services performed. (See, for example, 16 U.S.C. § 742f(c) and 29 CFR § 553.101.)

Volunteer and Donations Coordination Center. Facility from which the Volunteer and Donations Coordination Team operates. It is best situated in or close by the SEOC for coordination purposes. Requirements may include space for a phone bank, meeting space and space for a team of specialists to review and process offers.

Weapon of Mass Destruction (WMD). As defined in Title 18, U.S.C. § 2332a: (1) any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than 4 ounces, or missile having an explosive or incendiary charge of more than one-quarter ounce, or mine or similar device; (2) any weapon that is designed or intended to cause death or serious bodily injury through the release, dissemination, or impact of toxic or poisonous chemicals or their precursors; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

Forrest County Emergency Support Function #1 –Transportation Response Annex

ESF #1 Coordinator

Forrest County School District
Transportation Director
Hattiesburg School District
Transportation Director
Petal School District
Transportation Director
Hattiesburg Mass Transit Director

Forrest County Sheriff's Department
Forrest County & Municipal School Police
Hattiesburg & Petal Police Department
Forrest County Volunteer Fire Department
AAA Ambulance Service

State Primary Agencies

Mississippi Department of Transportation

State Support Agencies

Mississippi Department of Corrections
Mississippi Department of Education
Mississippi Department of Environmental
Mississippi Department of
Finance/Administration
Mississippi Department of Health-EMS
Mississippi Department of Human Services
Mississippi Department of Public Safety-
Mississippi Highway Patrol
Mississippi Department of Rehab Services
Mississippi Wildlife Fisheries and Parks
Mississippi Development Authority
Mississippi Emergency Management
Agency
Mississippi Public Service Commission
Mississippi Military Department

Primary Agencies

Forrest County & Municipal School
Districts
Hattiesburg Mass Transit

Forrest County Emergency Management
Director

Support Agencies

Forrest County & Municipal School
Districts

Introduction

Purpose

The primary purpose of this Emergency Support Function (ESF) is to provide and maintain a transportation infrastructure for the support of response and recovery assistance missions following an emergency or major disaster.

This ESF also includes procedures for a coordinated evacuation process should one ever be ordered or recommended by the city or county officials due to an impending disaster or incident (hurricane, tropical storm, terrorist threat, hazardous materials release etc.).

Scope

If local government transportation capabilities or resources become inadequate to meet the emergency transportation needs of Forrest County, ESF# 1 of the Mississippi Comprehensive Emergency Management Plan (CEMP) will be activated with the Mississippi Department of Transportation (MDOT) serving as the primary coordinator. Should the requirements for emergency transportation needs overwhelm the available resources within the state, MEMA will request in conjunction with MDOT to activate the Federal ESF#1 with Federal U. S. Department of Transportation.

Forrest County Emergency Support Function #1 –Transportation Response Annex

Relationship to Whole Community

This section describes how ESF #1 relates to other elements of the whole community.

Local, State, Tribal, and Area Governments

Primary responsibility for management of incidents involving transportation normally rests with local and state authorities and the private sector, which own and operate the majority of the Nation's transportation resources. As such, a Federal response must acknowledge local, state, tribal, territorial, and insular area transportation policies, authorities, and plans that manage transportation systems and prioritize the movement of relief personnel and supplies during emergencies.

Private Sector/Nongovernmental Organizations

The private sector owns or operates a large proportion of the Nation's transportation resources and is a partner and/or lead for the rapid restoration of transportation-related services. Private-sector mutual aid and assistance networks facilitate the sharing of resources to support response.

Core Capabilities and Actions

ESF Roles Aligned to Core Capabilities

The following table lists the response core capability that ESF #1 most directly supports, along with the related ESF #1 actions. Though not listed in the table, all ESFs, including ESF #1, support the Core Capabilities of Planning, Operational Coordination, and Public Information and Warning. **The actions listed beside each core capability in the table apply to local, state, tribal, federal, and Non-Governmental Organizations (NGOs).**

Core Capability	ESF #1 Transportation
Critical Transportation	• Monitor and report the status of and damage to the transportation system and infrastructure. • Identify temporary alternative transportation solutions to be implemented when primary systems or routes are unavailable or overwhelmed. • Implement appropriate air traffic and airspace management measures. • Coordinate regulatory waivers and exemptions. • Provide longer-term coordination of the restoration and recovery of the affected transportation systems infrastructure if required.

Policies

- Forrest County EMA director will work in conjunction with the School Superintendent or Transportation Director to ensure that all local government transportation requests are tasked based on citizen needs and available resources.

Forrest County Emergency Support Function #1 –Transportation Response Annex

- All support agencies will provide a designated staff person to work with the ESF #1 lead for Forrest County to ensure any necessary procurement of resources, staging areas, collection points and mission assignments are handled.
- The Forrest County School District Transportation Director will continue to provide necessary updates on road conditions, availability of transportation routes and resources through efforts with the Mississippi Department of Transportation and ESF #13.

Concept of Operations

Assumptions

- During various disasters, normal transportation systems in Forrest County could incur damages leaving many citizens without transportation from the risk zones.
- Roads and bridges immediately surrounding the affected area will be damaged or heavily congested, impairing emergency transportation to, from, and within the area.
- Signs, signals, and other types of markers, which facilitate traffic movement and control, will be damaged or destroyed.
- Communications for transport facilities and services will be disrupted.
- Shortfalls can be expected in both the infrastructure and in the logistical areas of transportation in terms of support personnel, equipment, materials, and supplies.
- Most vehicles would be driven on major highways or alternate roadways during disaster situations. Therefore, restoration of rail, air, water, and pipeline transportation would not be as high a priority as these main traffic routes.
- Upon the request of the Governor, all state agencies in charge of public transportation resources will comply with ESF #1's emergency acquisition of vehicles for evacuation purposes and the emergency movement of resources. Strike teams for EMAC may be employed in the event of a multi-state disaster.

General

The Forrest County Emergency Management Agency Director will keep all responsible agencies informed of all impending conditions (transportation developments, weather, hazardous materials, or other event) which would cause them to assume a readiness posture in preparation of EOC activation, possible deployment of resources to a forward area or other required activities.

Organization

The Forrest County School District Transportation Director will assume the lead as coordinator of all transportation requirements during an incident, major emergency or disaster. These duties will be executed in conjunction with personnel and resources as listed under all support agencies for the county.

Local/Separate municipalities will support the ESF based on available personnel and resources.

Forrest County Emergency Support Function #1 –Transportation Response Annex

Administrative and Logistical Support

All participating ESF #1 agencies are expected to:

- Coordinate their support with ESF #1.
- Locate, identify, and set up their operational work areas and maintain logistical support for them.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- Keep record of the costs of all available, acquired, and contracted resources incurred during support activities for emergency or major disaster operations for reporting purposes and potential reimbursement.
- Ensure that their financial management system, automated or otherwise, used to capture their incurred costs during an emergency, major disaster, or exercise is in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. Reimbursement of incurred costs is subject to audit.

Actions

Preparedness

- All Forrest County agencies with ESF #1 responsibilities will ensure that they have Standard Operating Procedures (SOPs) in place to enable them to perform appropriate levels of mitigation, preparedness activities prior to initiating event.
- Conduct annual training drills or exercises to ensure a high level of readiness for response personnel.

Pre-Incident

- Forrest County ESF #1 lead will develop/maintain alert and notification procedures for key transportation officials and agencies that support ESF# 1.
- Ensure a designated person is identified to work (24 hour coverage if necessary) within the Forrest County EOC. This resource shall remain until EOC operations return to normal.

Incident

- Immediately upon notification of an incident, actual disaster or major emergency, the Forrest County ESF #1 coordinator will activate the internal plan and/or SOP.

Forrest County Emergency Support Function #1 –Transportation Response Annex

- Ensure adequate communication is established and maintained with all applicable responders of ESF #1.
- Coordinate the distribution of assets as needed or based on requirements identified by local government and other ESFs.
- Maintain log of actions taken, resources ordered/used, records of personnel and equipment/ location and all other documents to support reporting requirement.
- Assist in gathering information on road closures to the state ESF # 1 lead to be disseminated through public broadcast via ESF #15.

Recovery

- Forrest County ESF #1 coordinator will work in conjunction with ESF # 3 to inspect and classify all routes available for re-entry and recovery.
- Forrest County ESF #1 coordinator will assist with transportation needs for evacuees and work with other support agencies to ensure resources are available.
- Coordinate with the State Emergency Operations Center to ensure that all recovery and re-entry information is disseminated through Public Radio, broadcast media and other available sources.

Post-Incident

- Develop a timeline to ensure all support personnel have been re-deployed back to their agencies and/or organizations.
- Prepare an after-action report (AAR). The AAR identifies key problems, indicates how they are to be/were solved, and makes recommendations for improving ESF response operations.
- All ESF #1 organizations assist in preparation of the after-action report.
- Provide after action report to the Forrest County Emergency Manager to ensure lessons learned are identified and recommended solutions are captured.

Responsibilities

Forrest County School District Transportation Director

The Office of Transportation, Forrest County Schools will ensure that the Transportation Director is tasked based on position to serve as lead for the ESF#1 requirement for Forrest County. The coordinator will be required to develop, maintain and execute all of the personnel and resources to support all incidents, disasters and/or major emergency that would affect Forrest County and its citizens. The below items outline specific duties:

- Develop and maintain an internal SOP that outlines all functions required for ESF#1 support.

Forrest County Emergency Support Function #1 –Transportation Response Annex

- Maintain a current inventory of county schools resources (buses, fuel, drivers etc.).
- Ensure current route maps and staging points (if needed) are available and accurate.
- Provide transportation needs for emergency work crews as appropriate.
- Assist in the mobilization of special needs populace based on request from local government.

Forrest County Emergency Management Agency Director

The Forrest County Emergency Manager upon the advisement from the State (if warranted) and in conjunction with the County and City Officials will complete the following:

- Ensure the timely and efficient activation of the requirements of ESF # 1 to support transportation needs.
- Confer with the support agencies to make decisions based on the incident to deploy designated support personnel to the county EOC.
- Task in conjunction with the ESF #1 coordinator all available resources and personnel to deploy to designated areas as needed.
- Provide all agencies and volunteers with up to date information that would affect the situation (weather, changes in conditions of the situation, road closures, etc.).

Agencies' Responsibilities

Agency	Functions
Forrest County School District Superintendent	• Staff Person designated to ESF #1 lead to allocate District Transportation. • Allocate or obtain county transportation resources (buses, fuel, drivers, etc.) for mission tasking during in the disaster or evacuation. • Alert all personnel/mechanics, bus drivers and applicable personnel of possible deployment. • Maintain coordination with the Forrest County EOC. • Support other agencies as needed to accomplish assigned mission by the EOC to meet the needs of the citizens of Forrest County. • Support Transportation resources upon request. • Dedicate resources from inventory. • Support transport of Special Needs populace as needed. • Maintain coordination with the Forrest County School District Transportation Director and the local EOC.
Forrest County Transportation Agency	• Supply transportation resources upon request. • Support transport of special needs populace as needed. • Maintain coordination with the Forrest County School Transportation Director and the EOC.

Forrest County Emergency Support Function #1 –Transportation Response Annex

Agency	Functions
Forrest County Sheriff's Department, (Hattiesburg, Petal, and Forrest County School Police)	• Assist with transportation traffic control. • Provide necessary property protection of evacuated areas. • Assist with route clearance of debris as needed. • Any other mission as identified by the senior law enforcement agency.
Public Works/Engineering, (County and City)	• Assist in keeping evacuation routes open (debris removal). • Inspection/assessment of roadways/bridges.
County Emergency Medical Services	• Establish/operate Emergency Medical care centers in risk area following evacuation. • Provide continued medical care for patients, who cannot be moved when facilities are evacuated (see ESF #8). • Coordinate with Forrest County Schools to use buses to transport patients as needed.

ESF #1 Review and Maintenance

As a minimum, the ESF coordinator contact will coordinate and conduct an annual review of this annex with all support agencies. Additional reviews may be conducted if experience with an incident or regulatory changes indicate a need. Recommendations for change will be submitted to Forrest County Emergency Management Agency for approval, publication, and distribution.

**Forrest County Emergency Support Function #1 –Transportation Response
Annex**

Forrest County Emergency Support Function #2 – Communications Response Annex

ESF #2 Coordinator

Forrest County Emergency Management Agency

Primary Agency

Forrest County Emergency Management Agency

Support Agencies

Forrest County Sheriff's Office-PSAP
Hattiesburg Central Dispatch-PSAP
Petal Police Department-PSAP
USM Police Department-PSAP
Designated EOC Personnel
AAA Ambulance-PSAP
Forrest County Amateur Radio

Private Sector Partners

AT&T Communications
C-Spire
Wireless Telecommunications Providers
Cellular Service Providers

State ESF Coordinator

Mississippi Emergency Management Agency (MEMA)
State Primary Agencies
Mississippi Emergency Management Agency (MEMA)
Mississippi Department of Public Safety (MDPS)
Mississippi Wireless Communications Commission (WCC)

Introduction

Purpose

This ESF was developed in order to provide information about communications equipment and warning capabilities that are available in Forrest County during emergency operations. The entire communications system is discussed and procedures for its use are outlined. The success of ESF # 2 requires the coordination, pooling, and networking of both available and obtainable communications resources provided by local government entities, volunteer organizations, other organizations, corporations, or other telecommunications providers.

The term “available” refers to resources within the existing inventory or control of participating agencies that can be used for the event. The term “obtainable” refers to resources to be acquired through mutual aid agreement, contract, lease, purchase, or otherwise from the inventory or control of participating agencies. These resources may be in such forms as facilities, personnel, equipment, materials, supplies, consulting services, contractual services, easements, rights-of-way, technical assistance, or other.

Scope

If local government communications capabilities or resources become inadequate to meet emergency or major disaster needs, ESF #2 of the Forrest County Comprehensive Emergency Management Plan (CEMP) will be activated to provide support to those jurisdictions and agencies affected. This support will be provided in accordance with the Concept of Operations in the State CEMP, which also consolidates the concepts of the National Response Framework (NRF).

Relationship to Whole Community

This section describes how ESF #2 relates to other elements of the whole community. Basic concepts that apply to all members of the whole community include:

Forrest County Emergency Support Function #2 – Communications Response Annex

Local, State, Tribal, and Area Governments

- Gain situational awareness through reporting that occurs at each level: from local, state, tribal, territorial, insular area governmental agencies; nongovernmental organizations; industry essential service providers; other private sector partners; and residents. Information and support requests generally flow from the incident level, through operations and coordination centers, to decision makers. At the same time, decision makers and operations and coordination centers provide accurate, actionable, and relevant information to support incident operations.
- Initiate actions to save and sustain lives, reduce human suffering, and provide additional resources and assistance to response efforts. ESF #2 accomplishes this by providing assistance to stabilize and re-establish critical infrastructure quickly and efficiently, coordinating requests for additional support, identifying and integrating resources and capabilities, and coordinating information flow.

Local authorities are responsible for obtaining required waivers and clearances related to ESF #2 support.

Private Sector/Nongovernmental Organizations

The private sector owns or operates most of the Nation’s communications infrastructure and is a partner and/or lead for the rapid restoration of infrastructure-related services.

Through planning and coordination, private sector entities provide critical information for incident action planning and decision making during an incident. Private sector mutual aid and assistance networks also facilitate the sharing of resources to support response.

Core Capabilities and Actions

ESF Role Aligned to Core Capabilities

The following table lists the Response core capability, Operational Communications, that ESF #2 supports, along with the related ESF #2 actions. Though not listed in the table, all ESFs, including ESF #2, support the core capabilities of Planning, Operational Coordination, and Public Information and Warning. **The actions listed beside each core capability in the table apply to local, state, tribal, federal, and Non-Governmental Organizations (NGOs).**

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Forrest County Emergency Support Function #2 – Communications Response Annex

Core Capability	ESF #2- Communications
Operational Communications	• Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between local, state, tribal, and area first responders. • Re-establish sufficient communications infrastructure within the affected areas to support ongoing life-sustaining activities; provide basic human needs, including the needs of individuals with disabilities and others with access and functional needs; and transition to recovery.

Policies

- An emergency or major disaster may strike one or more areas of the county at any time. The primary event may be a natural disaster, a technological, or other man-made event which causes varying degrees of damage ranging from minor to severe. Secondary effects may also increase damage to further render local communications systems inadequate or inoperable for a prolonged period.
- Two-way communication is essential for the orderly and efficient management of disaster operations. Prior to the impact of a disaster, coordination with other local governments and often with the state is critical. As a consequence, decisions affecting these areas must be communicated to them before conditions prevent the completion of these preparedness and/or response activities.
- Communications systems include traditional radio, telephone, telefax, and wide area network (WAN) connectivity, which may be supported by satellite, wireless, traditional landline services, and other modern electronic delivery mediums. These systems may be disrupted or limited by weather phenomena, antenna damage, transmission line damage, power outages, or other problems.
- Following disasters that have caused extensive damage, communications assistance and support may be required both from within and outside the county and state in order to alleviate human suffering and to restore the affected community (ies) to normal in the least amount of time, if possible.
- County and municipal officials, nonprofit organizations, and private-sector entities respond to the vast majority of incidents acting under their authorities or through agency or interagency contingency plans.
- The use of both traditional communications systems and modern technologies, such as WebEOC®, Internet, high-frequency phones and radios, and satellite networks, combined with backup from other counties and agencies tasked under this ESF, will enhance the county's capability in communications and automated data systems.
- Alternate, backup, or substitute methods of communication that may be required will be provided by other support agencies having these assets.

Forrest County Emergency Support Function #2 – Communications Response Annex

- Virtual-public activities, industry, commercial firms, and amateur radio operators are capable of augmenting established communications systems.
- Communications within the disaster area will require re-establishment or augmentation to provide verbal exchange between the state and federal disaster officials. Assistance can be provided with the deployment of MEMA's Mobile Operations Command Center (MOBOPS). MOBOPS' abilities include: , nine telephone lines, 700/800 trunks, UHF, two high band channels, two low band channels, two satellite radios, a marine radio, an aircraft radio, a camera system, video teleconferencing capacity, four VOIP lines, and Ground Control for Internet connection and additional capabilities.
- Emergency communications links between the State Emergency Operations Center (SEOC), the Federal government, and state agencies will be developed as needed.
- Ensuring the security of certain privileged or proprietary information will be accomplished.
- In a major disaster, existing communications may require augmentation to handle the increased volume of traffic.
- Interoperable communications with on and off-scene personnel will be achieved through the use of the Mississippi Wireless Integrated Network (MSWIN) which serves as the statewide 700 MHz interoperability system, ACU-1000s installed throughout the state, development of Incident Communications Plans (ICS Form 205), and/or the National Interoperability Field Operations Guide (NIFOG).
- All efforts will be made to meet the needs of those individuals with communication disabilities working in emergency operations, in accordance with the Americans with Disabilities Act (ADA).
- Policies regarding actions taken by 911 communication centers to an effort to support/coordinate communications, including alternate or backup methods, are included in local plans.

Concept of Operations

Assumptions

- Effective coordination of emergency response requires some form of communications.
- Communications systems may fail during a disaster or emergency.
- During period of heavy activity, some channels may become saturated with radio traffic.
- Lack of communications discipline and proper technique can reduce the effectiveness of communications systems.

Forrest County Emergency Support Function #2 – Communications Response Annex

- The Communications Center is usually only staffed with limited personnel, so communications with dispatch may become quickly overwhelmed.

General

- Communications play a critical role in emergency operations. Extensive communications network and facilities are already in existence throughout Forrest County. When these capabilities are properly coordinated, response activities become much more effective and efficient.
- Forrest County Emergency Management Agency has the primary responsibility for maintaining and operating the Emergency Operations Center (EOC) emergency communications systems and conducting the restoration of the communications infrastructure.
- The existing radio, telephone, telefax, and other systems of Emergency Management will provide the primary means for government communications. Backup and supplemental support communications systems are provided by all agencies participating in this ESF.
- All agencies with ESF # 2 responsibilities will ensure that they have Standard Operating Procedures (SOPs) in place to enable them to perform appropriate levels of mitigation, preparedness, response, and recovery related to the event. Agencies will have completed mitigation and preparedness activities prior to the initiating event, and will begin to perform response and recovery as needed.

Organization

- The Director of Forrest County Emergency Management Agency exercises control over the Emergency Management communications organizations and those who share in the network for support purposes. Operational control for ESF #2 is passed down from the Emergency Management Director to the Communications Officer.
- The Operations Director for Forrest County Emergency Management Agency is directly responsible for the activities and establishment of facilities in the Emergency Communications Center (ECC). He coordinates and controls personnel and equipment from support organizations in accordance with EOC emergency operating procedures.
- The Emergency Management communications organization is comprised of assigned personnel from Emergency Management and trained operators from supporting government agencies, quasi-public activities, and the private sector with terminal and entry equipment stored in the EOC.

Administrative and Logistical Support

- Individuals that represent their agencies/departments at the Forrest County EOC are responsible for knowing and using the proper communication and message procedures found in this ESF. They will be under the authority of Forrest County Emergency Management Director.
- Support agencies with communications systems linked to the county EOC are responsible for the maintenance of their equipment.

Forrest County Emergency Support Function #2 – Communications Response Annex

- Operational logs, messages, requests, and other appropriate documentation will be maintained for future reference. Paper documents will be saved to a CD, thumb drive, or other available electronic format and the paper documentation will be shredded after three years on file.
- All ESF #2 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.
- All ESF #2 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

- Equipment is kept under a constant schedule of testing, maintenance, and repair.
- Replacement parts are kept at the EOC and arrangements are in existence for additional repair facilities.
- Personnel are trained on the appropriate equipment as necessary.

Pre-Incident

- Alert local governments in the danger areas throughout Forrest County. Notifications for information to communicate may include severe weather information and/or damage, hazardous material spills, radiological incidents and shipments, major structure fires and explosions, major transportation accidents, search and rescue, missing/overdue aircraft, bomb threats, wild land fires, civil disorder, dam failure, water supply failure, terrorist incidents including weapons of mass destruction, general health hazards, and other events, as needed.
- Acquire the appropriate equipment and telecommunications services and make ready for emergency operations.
- Maintain a current contact list of vendors for technical support purposes.
- Maintain a current list of all AT&T emergency contact numbers.
- Maintain alert and notification procedures for EMA personnel, ESF #2 support personnel, and other key personnel supporting the Forrest County CEMP.
- Provide an ECO and alternate, if 24-hour coverage is necessary, and ESF #2 liaison to the EOC.

Forrest County Emergency Support Function #2 – Communications Response Annex

- May provide communications pre-staging capabilities with mobile command post equipped with land mobile and satellite radio.

Incident

- When emergency operations are initiated, the Forrest County Emergency Management Director will determine which communications personnel will be required to report to duty. Staff requirements will vary according to the incident.
- Alert notifications are made through telephone, e-mail, pagers, text messages to cell phones, radio, and fax capabilities.
- All ESF personnel represented in the EOC will use an event summary form to briefly document all their general activities performed.
- All requests for assistance and all general communication messages will be taken down on the form and given to the person designated to log messages. The message logger will then route the message to the appropriate ESF represented in the EOC.
- All representatives at the EOC will keep phone logs.

Recovery

- All activities in the emergency phase will continue until such time as emergency communications are no longer required.
- Provide communications support as required.
- Provide information on status of communications in Forrest County.

Post-Incident

- Operational logs, messages, requests and other appropriate documentation will be maintained for future reference.
- Internal and external communications equipment is essential to support disaster response and recovery efforts. Each is needed to disseminate instructions and operational guidance. Internal communications equipment may utilize existing telephone systems, e-mail, satellite radio, facsimile machines, High Frequency (HF) radio or messengers.
- Support agencies with communications systems linked to the EOC and other field operations are responsible for the maintenance of their own equipment.
- The Operations Director is responsible for maintaining the availability of adequate repair parts and operating supplies.
- Prepare an after action report for closeout to identify key problems, issues and recommended resolutions and submit to Forrest County Emergency Management Director.

Forrest County Emergency Support Function #2 – Communications Response Annex

Responsibilities

The day-to-day operations of local Emergency Management provides planning and personnel training to obtain the maximum use of available resources and materials in the event an emergency should arise. During the emergency, local government will coordinate and identify essential resources to be rendered to disaster victims. The aim of the Communications ESF is to utilize assigned and trained personnel to carry out each assignment effectively among the many equipment tasks to be performed during an emergency.

Forrest County Emergency Management

- Activate the EOC/ECC when necessary.
- Develop and maintain a current personnel roster for EOC staffing (have back-up EOC personnel already notified in case of extended 24-hour period operations).
- Responsible for overall authority of EOC/ECC operations.
- Supervise all communication activities.
- Responsible for checking commercial radio and television broadcasts for accuracy of public information.
- Maintain and be responsible for the proper functioning of communications equipment in the ECC.
- Coordinate with assigned EOC staff on communication's usage and procedures.
- Be sure that all incoming/outgoing disaster communication traffic is documented on the proper message forms.
- Appoint someone to number messages and record them in a log.
- Establish communication protection procedures against lightning strikes, loss of power, etc.
- Establish communication contact with the Mississippi Emergency Management Agency.
- Identify and know the activation procedures of all Forrest County warning systems.
- Under the authority of the Board of Supervisors and Mayors, responsible for relaying all local watches and warnings via this ESF and ESF# 15.
- Provide a predetermined list of manpower for door-to-door warning if necessary (especially for at risk populations such as: hearing impaired, non-English speaking groups, elderly populations, transportation disadvantaged, etc.). For more information on at risk populations see Basic Plan.
- Educate the public regarding the use of the warning systems.

Forrest County Emergency Support Function #2 – Communications Response Annex

- Phase down EOC operations when disaster is closed out.

Support Agencies' Responsibilities

Agency	Functions
Forrest County Sheriff's Office	• Direct all calls concerning the disaster to the appropriate location (i.e., EOC, Sheriff's Office, Fire Department, Hospital, etc.). • Responsible for proper screening and routing of all incoming telephone calls.
Forrest County Amateur Radio Operators	• Responsible for upkeep of own communications equipment. • Coordinate with Emergency Management in the proper dispatching and handling of all emergency request calls during disasters. • Assist in warning key personnel, public, and emergency departments of impending danger.
City of Hattiesburg and Petal Police Departments and Fire Services	• Provide communications support to the EOC. • Relay all field actions or requests back to the EOC. • Provide mobile public address units for warning, if necessary. • Provide manpower for door-to-door warning, if necessary and feasible.
Designated county EOC personnel	• Report to the EOC when notified of its activation. • Responsible for proper use of the equipment at assigned position. • Establish communication links with responders in the field. • Responsible for keeping accurate records of all traffic over the various networks. • Responsible for reporting any problems or difficulties with equipment, personnel, or any communication devices to Emergency Management personnel.
Forrest County Emergency Service Response Agencies	• Responsible for maintaining a constant communications link to their EOC representative for coordination purposes.

ESF #2 Review and Maintenance

Forrest County Emergency Management will coordinate an annual revision of this ESF annex with all supporting agencies. Unscheduled reviews may be conducted based on incident experience or changing laws and regulations. Recommendations will be submitted to Emergency Management as needed for approval, publication, and distribution.

Forrest County Emergency Support Function #2 – Communications Response Annex

Appendices

Appendix 1	Event Summary Log
Appendix 2	Warning Equipment/Procedures
Appendix 3	Forrest County Radio Operating Frequencies
Appendix 4	Mississippi Wireless Communications Commission Regional Map
Appendix 5	SATCOM Network
Appendix 6	NWS Warning Areas
Appendix 7	Mississippi Highway Safety Patrol Districts
Appendix 8	MDPS Emergency Telephone Numbers

**Forrest County Emergency Support Function #2 – Communications Response
Annex**

Appendix 1- Event Summary Log

EVENT/OPERATIONS SUMMARY LOG		
Insert the number beside the type event/incident onto the appropriate line in the column marked "EVENT ID No." Use an ID number for each event worked during the operational period. Distinguish different events with the same ID No. by adding an alphabetic indicator for each different event of the same type (example, 4a, 4b, 4c, etc.). 1. ELT/SAR 2. Flooding 3. General Inquiry 4. Haz Mat 5. Media Inquiry 6. Fire/Explosion 7. Oil/Gas Well 8. Pipeline 9. Public Inquiry 10. Rad Emergency 11. Resource Request 12. Severe Weather 13. Transportation 14. Water system 15. Winter Storm 16. Bomb Threat		
Name:		Date:
TIME	EVENT ID No.	SUMMARY OF ACTIONS TAKEN

Forrest County Emergency Support Function #2 – Communications Response Annex

Appendix 2- Forrest County Warning Equipment Procedures

1. National Weather Service (NWS)

Forrest County is part of the Jackson National Weather Warning District and will receive weather related information from this location.

2. NOAA Weather/All Hazards Radio

NOAA weather/all hazards radio report the latest weather information 24 hours a day directly from the NWS office in Jackson to Forrest County.

Severe Weather

During threatening or severe weather, NOAA Radio broadcasters can interrupt the routine weather broadcasts with special weather statements or warning messages. Broadcasters also activate the warning alarms on weather and all hazard radios, indicating that an emergency message is being transmitted.

Warning Alarm

A warning siren alarm test is conducted the first Tuesday of each Month. If threatening weather is forecast or precipitation is detected by radar, the test is postponed until the following day.

Public Schools and Buildings

All schools and public buildings in Forrest County have been equipped with NOAA all-hazard radios. Also, the public schools have been equipped with alert devices that allow the schools to receive real time information on the alert that is broadcast by the Forrest County Emergency Management Agency.

3. Hattiesburg & Petal Police Departments, Hattiesburg & Petal Fire Departments, Forrest County Fire Departments, E-911, and Forrest County Emergency Management Agency

The Hattiesburg & Petal Police Departments, Hattiesburg & Petal Fire Departments, Forrest County Fire Departments, E-911, and Forrest County Emergency Management Agency have the ability to activate the 911 toning system that alerts emergency services personnel. The Emergency Management Coordinator will also instruct E-911 when to notify other pertinent officials of Forrest County or the Cities of Hattiesburg & Petal, as he/she deems necessary.

4. Emergency Alerting System (EAS)

EAS provides a means for supplying emergency information to the public. It utilizes commercial radio and television. Broadcast services are provided on a voluntary organized basis. Stations that utilize EAS are listed in ESF #15.

Forrest County Emergency Support Function #2 – Communications Response Annex

5. Print Media

When time is sufficient, emergency awareness information and procedures are provided through the print media, particularly through newspapers.

6. Project Skywarn

Project Skywarn is a national program designed to place trained personnel in the field to spot and track severe weather and tornados. Skywarn is sponsored locally by the Forrest County Emergency Management Agency. Training is conducted by the National Weather Service office in Jackson.

7. Outdoor Warning Sirens

The Cities of Hattiesburg, Petal, and the University of Southern Mississippi have a combined total of 10 outdoor warning sirens. These sirens can be activated during a tornado warning or disaster from several locations throughout Forrest County. The Forrest County Emergency Management Coordinator is responsible for activating the siren system once a tornado warning has been issued.

Forrest County Emergency Support Function #2 – Communications Response Annex

Appendix 3- Forrest County Radio Operating Frequencies

Forrest County Radio system information

Forrest County is part of the MSWINN Radio system. We maintain three sites on the system. Forrest County operates 109 Talk groups on the MSWINN System. All Governmental and Public Safety Agencies inside Forrest County operate on this P25 trunking system.
Forrest County also has compatibility with State agencies by using this system.

Appendix 4- Mississippi Wireless Communications Commission Regional Map

**Forrest County Emergency Support Function #2 – Communications Response
Annex**

Adams County EMA	Warren County EMA
Coahoma County EMA	Washington County EMA
Copiah County EMA	Hinds EOC
DeSoto County EMA	Bolivar CD
George County EMA	Claiborne CD
Grenada County EMA	Hancock CD
Hattiesburg EMA	Harrison CD
Jackson County EMA	Pearl River CD
Lauderdale County EMA	Stone CD
Lowndes County EMA	Greenwood MHP
Monroe County EMA	MDOT Radio
Panola County EMA	RAD Health
Tate County EMA	MS Department of Public Safety
Tunica County EMA	Wildlife, Fisheries, and Parks

**Forrest County Emergency Support Function #2 – Communications Response
Annex**

Appendix 6- National Weather Service Warning Areas

Jackson Weather	601-936-2189
Slidell Weather	985-645-0899
Mobile Weather	251-633-6443
Memphis Weather	901-544-0399

**Forrest County Emergency Support Function #2 – Communications Response
Annex**

Appendix 8- Mississippi Department of Public Safety Emergency Telephone Numbers

MDPS Emergency Telephone numbers	
HQs/Troop C Dispatch 601-987-1530	
800-843-5352 Toll free number	
Troop Main Numbers	
Troop C	601-420-6342
Troop D	662-453-4515
Troop E	662-563-6400
Troop F	662-534-8619
Troop G	662-323-5314
Troop H	601-693-1926
Troop J	601-582-3529
Troop K	228-396-7400
Troop M	601-833-7811
MBI	601-987-1579
Public Affairs	601-987-1393
MJIC at CIC	601-933-2662
Homeland Security	601-346-1521
Motor Carrier Unit	601-362-3541

Forrest County Emergency Support Function #3- Public works and Engineering

ESF #3 Coordinator

Forrest County Road Manager
Forrest County Maintenance Supervisor
Hattiesburg Public Works Director
Petal Public Works Director

Pearl River Valley EPA
Southern Pines Electric Power Assn.
Wilmot Gas Company
Center Point Energy
AT&T
Comcast Cable

Primary Agencies

Forrest County Board of Supervisors
Municipalities in Forrest County
Forrest County Emergency Management Agency
Hattiesburg Public Works Department
Petal Public Works Department
Forrest County Road Department
Forrest County Maintenance Supervisor

Support Agencies

Forrest County Engineer
Forrest County Health Department
Water Associations –
 Barrontown Water Association
 Brooklyn Utility
 Carnes Utility
 Dixie Community Utility
 Eastabuchie Water Utility
 Glendale Utility District
 McLaurin Utility District
 Rawls Springs Utility
 Sunrise Water Utility Association
 Hattiesburg Water
 Petal Water

Other Public/Private Utilities

Mississippi Power
Dixie Electric Power Assn.
South MS Electric Power Assn.

State Non-governmental Support Organizations

Alabama/Mississippi Section, American Water Works Association
Mississippi Water and Pollution Control Operators Association
Mississippi Rural Water Association
Mississippi Chapter of the American Public Works Association
Mississippi Water Environment Association
Building Officials of Mississippi
Community Resource Group/Mississippi Rural Community Assistance Program
Mississippi Municipal League
Mississippi Association of Supervisors

State ESF Coordinator

Mississippi Emergency Management Agency
Mississippi Chapter of the American Public Works Association

State Primary Agencies

Mississippi Emergency Management Agency
Mississippi Chapter of the American Public Works Association

Introduction

Purpose

The purpose of this Emergency Support Function (ESF) is to provide for the development of public works and engineering plans for various emergency disasters, situations, and/or incidents when extraordinary measures must be taken to protect lives and property in Forrest County. This ESF provides for work crews and officials to quickly and efficiently restore and maintain public and private utilities to the citizens of Forrest County.

The public works activities addressed in this ESF include, but are not limited to, the following: (1) restoration of utilities; (2) debris and timber removal; and (3) repair and restoration of streets, roads, and bridges.

Forrest County Emergency Support Function #3- Public works and Engineering

Scope

If an emergency or a major disaster should overwhelm the resources and capabilities of public works at the local government level, ESF #3 of the Forrest County Comprehensive Emergency Management Plan (CEMP) will be activated to provide support in accordance with concepts of the State CEMP and the National Response Framework (NRF). The Scope of this ESF includes but is not limited to:

- Participation in needs/damage assessments immediately following a disaster.
- Coordinate emergency clearance of debris to enable reconnaissance of the damaged areas and passage of emergency personnel and equipment for lifesaving, property protection, and health and safety.
- Coordinate removal and disposal of debris from public property.
- Coordinate emergency access routes which include repairs to damaged streets, bridges, ports, waterways, airfields, and other facilities necessary for emergency access to disaster victims.
- Coordinate emergency restoration of critical public facilities, including the temporary restoration of water supplies and wastewater treatment systems.
- Coordinate inspection of damaged structures and facilities. Monitor demolition or stabilization designated by State or local government as immediate hazards to public health and safety, or as necessary to facilitate lifesaving operations (temporary protective measures to abate immediate hazards to the public for health and safety reasons until demolition is accomplished).
- Coordinate emergency contracting to support public health and safety such as providing for potable water, ice, or power.
- Coordinate technical assistance, including inspection of private residential structures and commercial structures.
- Support to other ESFs as outlined in the NRF.
- Assessment and coordination of emergency power to public facilities.

Relationship to Whole Community

Local, State, Tribal, and Area Governments

- A whole community approach is used in the delivery of core capabilities through coordinated planning and response with local, state, tribal, territorial, and insular area partners.
- Local, state, tribal, and area governments are responsible for their own public works and infrastructures and have the primary responsibility for mitigation, preparedness, response, and recovery.

Forrest County Emergency Support Function #3- Public works and Engineering

- Local, state, tribal, and area governments are fully and consistently integrated into ESF #3 activities.
- When activated to respond to an incident, the primary agencies for ESF #3 develop work priorities in cooperation with local, state, tribal, territorial, and insular area governments.
- Local authorities are responsible for obtaining required waivers and clearances related to ESF #3 support.
- Local, state, tribal, territorial, and insular area mutual aid and assistance networks facilitate the sharing of resources to support response activities.

Private Sector/Nongovernmental Organizations

- The private sector owns and/or operates a large proportion of the Nation's infrastructure and is a partner and/or lead for the rapid restoration of infrastructure-related services.
- Through ongoing planning and coordination, the private sector provides critical details for incident action planning and decision making processes during an incident.
- Private-sector mutual aid and assistance networks facilitate the sharing of resources to support response.
- Pre-awarded contracts and other emergency contracting vehicles are used to leverage private sector capabilities to support ESF #3 response activities.
- A whole community approach is used in the delivery of core capabilities through established relationships and agreements with volunteer organizations and other nongovernment organizations.

Core Capabilities and Actions

ESF Roles Aligned to Core Capabilities

The following table lists the Response core capabilities that ESF #3 most directly supports along with the related ESF #3 actions. Though not listed in the table, all ESFs, including ESF #3, support the core capabilities of Planning, Operational Coordination, and Public Information and Warning. **The actions listed beside each core capability in the table apply to local, state, tribal, federal, and Non-Governmental Organizations (NGOs).**

Core Capability	ESF #3- Public Works and Engineering
Infrastructure Systems	• Prepares for potential public works and engineering requirements. Activities include providing public information, contributing to situational awareness, establishing response teams, leveraging technological tools, training and exercising with partners, establishing private sector contracts and agreements, and coordinating with volunteer organizations and other nongovernmental partners.

Forrest County Emergency Support Function #3- Public works and Engineering

Infrastructure Systems (continued)	• Conducts pre-incident and post-incident assessments of public works and infrastructure. • Executes emergency contract support for life-saving and life-sustaining services. • Provides emergency repair of damaged public infrastructure and critical facilities. • Supports restoration of critical navigation, flood control, and other water infrastructure systems, including drinking water and wastewater utilities. • Provides assessment and emergency response support for water, wastewater treatment facilities, levees, dams, buildings, bridges and other infrastructure. • Provides temporary emergency power to critical facilities (e.g., hospitals, water treatment plants, shelters, fire/police stations). • Constructs temporary critical public facilities to temporarily replace destroyed or damaged following a disaster (e.g., schools, local government offices, fire stations, police stations, and medical facilities) in coordination with ESF #6. • Provides assistance in the monitoring and stabilization of damaged structures and the demolition of structures designated as immediate hazards to public health and safety. • Provides structural specialist expertise to support inspection of mass care facilities and urban search and rescue operations in coordination with ESF #9. • Manages, monitors, and/or provides technical advice in the clearance, removal, and disposal of debris from public property and the reestablishment of ground and water routes into impacted areas. For the purposes of ESF #3, the term “debris” includes general construction debris that may contain inherent building material contaminants, such as asbestos or paint. Debris may also include livestock or poultry carcasses and/or plant materials. • Provides technical assistance to include engineering expertise, construction management, contracting, real estate services, and inspection of private/commercial structures. • Provides engineering and construction expertise, responders, supplies, and equipment to address flooding to include providing advance measures in anticipation of imminent severe flooding.
Critical Transportation	• Provides coordination, response, and technical assistance to effect the rapid stabilization and reestablishment of critical waterways, channels, and ports to include vessel removal, significant marine debris removal, emergency dredging, and hydrographic surveys. • Clears debris from roads to facilitate response operations. • For incidents involving a blast or explosion associated with a chemical, biological, radiological, or nuclear (CBRN) threat agent resulting in a contaminated debris field, leads local actions to clear critical transportation routes of CBRN-contaminated debris, during the emergency phase, in consultation with ESF

Forrest County Emergency Support Function #3- Public works and Engineering

	#10. ESF #10 assumes leadership for management of CBRN-contaminated debris after the emergency phase is over.
Environmental Response/Health and Safety	• Collects, segregates, and transports to an appropriate staging or disposal site(s) hazardous materials that are incidental to building demolition debris, such as household hazardous waste and oil and gas from small motorized equipment; removes and disposes of Freon from appliances; and removes, recycles, and disposes of electronic goods. • For incidents involving a blast or explosion associated with a CBRN threat agent resulting in a contaminated debris field, ESF #3, in consultation with ESF #10 and MEMA: – Provides structural specialist expertise to support inspection of damaged CBRN-contaminated infrastructure and may employ temporary stabilization measures or take other actions as necessary to address structural instability concerns. – Performs demolitions after a determination is made that a building is unstable and creates an imminent hazard to workers and/or after ESF #10, in conjunction with other appropriate Local, state, tribal, territorial, and insular area authorities, makes a determination that demolition is the desired cleanup approach.
Public and Private Services and Resources	• Executes emergency contracting support for infrastructure related to life-saving and life-sustaining services to include providing potable water, emergency power, and other emergency commodities and services.
Fatality Management	• Manages debris to facilitate fatality recovery efforts to include establishing a system for sorting debris and recovering human remains. • Provides construction and engineering support for temporary morgues.
Mass Care Services	• Provides construction, engineering, and project management expertise and support for temporary housing and sheltering, ensuring accessibility for those with disabilities and others with access and functional needs to include management of temporary roofing support following hurricane disasters. • Inspects mass care shelter sites to ensure suitability and accessibility of facilities to safely shelter survivors. • Constructs temporary shelter facilities, including accessible shelters, in the affected area, as required.
Search and Rescue	• Provides specially trained and equipped structural engineers to augment FEMA Urban Search and Rescue Task Forces, incident support teams, military technical rescue organizations, and general purpose troops during structural collapse incidents and other disaster response missions. • As required, provides debris removal equipment and expertise to support search and rescue operations.

Forrest County Emergency Support Function #3- Public works and Engineering

Policies

Essentially all public works equipment and personnel from Forrest County and the respective towns will be available to cope with most disaster situations. Trained contractors in and around Forrest County may also have sufficient resources to backup public works recovery efforts in any unforeseen life-threatening disaster situation. Trained personnel and equipment can be requested from nearby counties if needed, and also through the state.

Concept of Operations

Assumptions

- Most emergencies and disasters involve damage to property to some extent. Roads, bridges, public utility systems, public and private buildings, homes, and other facilities will have to be inspected and either cleared for use, reinforced, quarantined, or demolished to ensure safety.
- The inspection, repair, or demolition of buildings and infrastructure damaged by a disaster is the responsibility of local officials, as is the enforcement of local building, zoning, and subdivision regulations. ESF #3's function is resource assistance. ESF #3 may task inspectors to jurisdictions through Mutual Aid resources for assessments; the local jurisdiction will make final determinations and take appropriate action.
- Upon successful reinstatement of public water supplies, the probable overflow of inoperable wastewater collection and treatment systems may compound public health concerns.
- In the event power is lost and alternate power supplies are not adequate to the infrastructure, a critical water shortage may develop which can only be met through transporting bulk water into the affected area in tanker trucks or by using portable treatment facilities with local surface supply. Adequate pressurized water supplies or operable hydrants may not be available for fire-fighting operations.
- Immediate evaluation of the safety of public and private structural and non-structural damage will be critical to preventing further damage and to protect the public's health and welfare.
- Debris will restrict the use of streets and highways, making some impassable. Public utilities will also be damaged/ covered by debris and may be partially or fully inoperable.
- Vital public works and engineering trucks and equipment in the immediate disaster area may be damaged or temporarily inaccessible for response and recovery applications.
- State or federal assistance may be required to identify and deploy resources from outside the affected area to ensure a timely, efficient, and effective response and recovery.
- Access to the disaster areas will be dependent upon the re-establishment of ground and water routes. In many locations, debris clearance and emergency road repairs will be given top priority to support immediate lifesaving emergency response activities.

Forrest County Emergency Support Function #3- Public works and Engineering

- Early damage assessments will be general, incomplete, and may be inaccurate. Rapid assessments of the disaster area are required to determine critical response times and potential workloads.
- Methodology for prioritizing tasks will generally be found to be ranked by public health/safety and population affected.
- To minimize threats to public health, emergency environmental waivers and legal clearances may be needed to dispose of emergency debris and materials from demolition activities. Local authorities are responsible for obtaining required waivers and clearances.
- Significant numbers of personnel having engineering and construction skills and construction equipment and materials may be required from outside the disaster area.
- Primary agencies (including Forrest County EMA) and support agencies will perform tasks under their own authorities, as applicable, in addition to missions received under the authority of Forrest County EMA.
- Maps (electronic or hard-copy) may be inaccessible locally for many utilities.
- Numerous volunteering entities, both governmental and non-governmental may mobilize personnel, supplies and equipment to the affected areas without coordination or communication with the ESF #3 cell. Duplication, chaos and confusion may ensue and vital resources will be found to have been better tasked to other areas.
- Regional and national resource networks may fail to operate.
- Forrest County EMA and support agency personnel required to man the ESF #3 desks may not have access to fuel for personally owned vehicles (POV) to travel to work or field.
- Jurisdictions from both in and out-of-state will offer services to those in need.
- Local officials in affected areas will have little knowledge of procedures available to them in the aftermath of disaster (emergency procurement procedure). Where adequate Mutual Aid Agreements (MAAs) are not in place, resistance to signing new ones will prevail.
- Local officials will resist “paying up front.”
- Attempts will be made to travel the “100% Assistance” path, delaying acceptable tasking options.
- Contractors offering ‘free and voluntary’ services or supplies will be on the scene seeking travel pass.

General

Essentially all public works equipment and personnel from Forrest County will be available to cope with most disasters. County and City resource listings can be found in ESF #7 Resource Management. The Forrest County Board of Supervisors along with the Public Works Directors of

Forrest County Emergency Support Function #3- Public works and Engineering

Hattiesburg, and Petal and the Mayors of Hattiesburg and Petal are the primary individuals responsible for ESF #3. Representatives from these departments will coordinate with all appropriate agencies/departments and organizations to ensure operational readiness in times of emergencies.

Local officials, through their county Emergency Operations Centers (EOCs), should be encouraged to be self-sufficient during the first 2 – 3 days of a disaster. Local officials and managers should channel their requests for assistance where possible through county EOCs. County EOCs should encourage local officials to learn more about the benefits of Mutual-Aid Agreements (MAA), particularly for their utilities. Local officials must conduct initial damage assessment to determine the severity and magnitude of property damage in quantity, community impact, and dollar amount.

Prioritization and initiation of emergency, initial response, and short-term recovery work tasking to restore, repair, and mitigate the impact of the public work and engineering needs include:

- Reconnaissance of the damaged areas and access by emergency personnel and equipment for lifesaving, life protecting, and health and safety purposes during the immediate response phase;
- Emergency clearing of debris from the multi-modal transportation infrastructure;
- Emergency repair or closure of damaged segments of the multi-modal transportation infrastructure, in conjunction with ESF #1;
- Emergency repair and restoration of damaged but potentially operable water, electrical, natural gas, sanitary sewage, and storm water collection, generating, and distribution system;
- Development and initiation of emergency collection, sorting, and disposal routes and sites for the cleared from all public and private property;

All agencies with the above responsibilities will ensure that they have Standard Operating Procedures (SOPs) in place to enable them to perform appropriated levels of public works and engineering mitigation, preparedness, response and recovery.

Organization

Forrest County Emergency Operations Center

ESF #3 is part of the EOC Operations Section and the Emergency Services Branch.

Administrative and Logistical Support

All participating ESF #3 agencies are expected to:

- Coordinate their support with ESF #3.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.

Forrest County Emergency Support Function #3- Public works and Engineering

- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #3 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #3 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.
- All ESF #3 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Contracts and Mutual Aid Agreements

- Prior arrangements must be developed for direct contracting with private contractors, vendors, and engineers to assist in response and recovery efforts.
- Local government support is available to members of the Statewide Mutual Aid Compact (SMAC).
- Resources may be obtained by activating mutual aid agreements.
- Resources acquired through mutual aid agreements will be managed according to the requirements of those agreements.

Operations and Planning Support

- ESF #3 will operate in concert with the Incident Command System (ICS).
- ESF #3 will report all activity via appropriate media as required by Forrest County EMA.
- ESF #3 will provide daily situation reporting to ESF #5 as directed by that emergency support function.

Actions

Preparedness

- Ensures that county-level ESF #3 Standard Operating Procedures (SOPs) are developed and maintained to provide detailed information under ESF #3 operations.

Forrest County Emergency Support Function #3- Public works and Engineering

- Plans engineering, contracting, and procurement assistance for emergency debris removal, demolition, public works repair, and water supply missions.
- Designates an ESF #3 liaison and alternate that will report to the County EOC or other areas of operation.
- Maintains an inventory list/data base of equipment and supplies needed to sustain emergency operations.
- Supports development and maintenance of SOPs to enable agencies to perform appropriate levels of mitigation, preparedness, response, and recovery related to public works and engineering, including an alternate list of agencies with debris removal capabilities.
- Assigns and trains personnel to support emergency operations at the Forrest County EOC or other areas of operation.
- Establish training for pre-disaster and post-disaster assessment of structures.
- ESF #3 Liaison should ensure administrative, supervisory and technical requirements are collaborated with Forrest County Emergency Management Director.

Pre-Incident

- Notify Support Agencies and Partners on activation as needed and minimal staffing requirements.
- Conduct preliminary staff meeting with complete ESF #3 Team at EOC.
- Establish strategies for approaching incident(s).
- Provide an ESF #3 liaison (and alternate if 24 hour coverage is necessary) and Forrest County-ESF #5 liaison to the SEOC.
- Arrange meeting with Forrest County Emergency Management Director on Public Works and Engineering actions to be taken; assign staff Liaison (LNO) to facilitate report requirements needed during the incident.

Incident

- Upon activation of ESF #3, the Forrest County ESF lead will communicate pertinent information to all ESF #3 members. Such information will be complete orientation of the ESF #3 mission, purpose and scope of work. Issue or have available ESF #3 SOP manuals or other needed documents.
- Ensure adequate communications are established and maintained.
- Obtain initial situation and damage assessments through established intelligence procedures.

Forrest County Emergency Support Function #3- Public works and Engineering

- Coordinate the distribution of assets as needed.
- Maintain a complete log of actions taken, resource orders, records, and reports.
- Establish, per SOP, protocols for interface with state counterparts, if applicable.

Recovery

- Continue damage assessments and monitor change in condition.
- Assist in pumping out areas that may be flooded.
- Reassess codes and regulations.

Post-Incident

- Provide or secure construction, maintenance, and upgrading of infrastructure to withstand stresses that could be applied by locally identified hazards (County and City- owned facilities).
- Review and recommend revisions to plans and procedures as determined necessary.
- Prepare an after-action report to identify key problems, indicate how problems are to be/were solved, and make recommendations for improving ESF response operations.
- Compare ESF #3 staff records with Forrest County EOC tasking and tracking system to assure accuracy. This includes the City of Hattiesburg and the City of Petal.

Responsibilities

Forrest County Engineer

- The ultimate responsibility for providing public works services under emergency conditions lies with local government. The Forrest County Engineer is designated to oversee the public works activities in the county/city in their respective jurisdiction. This includes determining the damages and utility services lost through the county following a disaster, and advise the Forrest County Emergency Management Director of lost services, coordinating emergency public works activities by dispatching personnel and equipment to the disaster site, and coordinating priority restoration of utilities to critical and essential facilities.
- When all local resources have been exhausted, it will be the responsibility of the Public Works Director to coordinate with the Forrest County Emergency Management Director to obtain additional manpower, equipment, and materials to carry out the engineering, debris removal, maintenance, and construction functions. The engineer will coordinate the overall public works and engineering efforts from the EOC, if it has been activated, designate an individual who will report to the EOC upon activation and will act as the Emergency Coordinating Officer (ECO) for ESF #3 (ensuring an alternate ECO for 24-hour availability if needed).

Forrest County Emergency Support Function #3- Public works and Engineering

Agencies' Responsibilities

Agency	Functions
Forrest County Board of Supervisors	• Provide government oversight to ensure damage assessments of county roads, bridges and other facilities are completed. • Collaborate with the Forrest County EMA Director to ensure the destruction of hazardous dilapidated structures following a disaster or incident is carried out.
Municipalities in Forrest County	• Provide government oversight to ensure damage assessments of city and town roads, bridges and other facilities are completed. • Collaborate with the Forrest County EMA Director to ensure the destruction of hazardous dilapidated structures following a disaster or incident is carried out.
Forrest County Emergency Management Agency	• Coordinate with the ESF #3 lead representatives concerning the overall public works and debris clearance activities for the county and cities. • Help identify and allocate other equipment and personnel to help with public works activities, if needed and forward request to MEMA for state resources.
Hattiesburg Public Works Department	• Responsible for public works duties within their jurisdiction. • Assist the county, to the extent possible, on any life-threatening public works issues. • Provide any mutual-aid as required by Forrest County EMA Director.
Petal Public Works Department	• Responsible for public works duties within their jurisdiction. • Assist the county, to the extent possible, on any life-threatening public works issues. • Provide any mutual-aid as required by Forrest County EMA Director.
Forrest County Health Department	• Assess damages to local/community water systems, consult with the Mississippi State Department of Health's Water Supply Division and take appropriate action as recommended/necessary. • Issue through the Forrest County EMA Director public information or news releases on "boil water notices", as required.
Water Associations - Municipalities	• Top off water storage tanks. • Maintain water pressure when emergency power is attained. • Protect and provide potable water. • Decontaminate water system and coordinate sampling and testing of water with Forrest County Health Department.

Forrest County Emergency Support Function #3- Public works and Engineering

Agency	Functions
Other Public/Private Utilities	• Establish contact with Forrest County EOC for coordination purposes. • Conduct damage assessment of all damages within the county. • Inform customers, through media release, of estimated time of restoration of service and areas off limited to citizens. • Identify the areas without service and restore services to critical facilities first, then residential areas.

Review and Maintenance

The Forrest County Engineer will coordinate an annual revision of this ESF annex with all primary and supporting agencies. Unscheduled reviews may be conducted based on incident experience or changing laws and regulations. Recommendations will be submitted to Forrest County Emergency Management as needed for approval, publication, and distribution.

Forrest County Emergency Support Function #4- Firefighting Annex

ESF #4 Coordinator

Forrest County Fire Services Coordinator

Hattiesburg Fire Chief

Petal Fire Chief

Primary Agencies

Forrest County Emergency Management
Forrest County Fire Service
Brooklyn Volunteer Fire Department
Camp Shelby Fire Department
Carnes Volunteer Fire Department
Dixie Volunteer Fire Department
Hattiesburg Fire Department
Macedonia Volunteer Fire Department
McLaurin Volunteer Fire Department
North Forrest Volunteer Fire Department
Petal Fire Department
Rawls Springs Volunteer Fire Department
Sunrise Volunteer Fire Department

Support Agencies

Forrest County Sheriff's Department
Hattiesburg Police Department
Petal Police Department

State ESF Coordinator

Mississippi State Fire Marshal's Office

State Primary Agencies

Mississippi Department of Insurance

State Support Agencies

Mississippi Forestry Commission
Mississippi State Fire Academy
Mississippi Emergency Management
Agency

Introduction

Purpose

The purpose of this Emergency Support Function is to provide Forrest County with firefighting capability able to meet the demands of a disaster situation. In addition to firefighting tasks, responsibilities in rescue, Communication and warning, damage assessment, and hazardous materials operations are addressed.

Scope

This section of the plan is to be used to respond to incidents where threatened or actual damage exceeds local response capabilities and State response is requested.

Relationship to Whole Community

This section describes how ESF#4 relates to the elements of the whole community.

Forrest County Emergency Support Function #4- Firefighting Annex

State, Territorial, Tribal and Local

Firefighting is an inherently local responsibility.

Local fire resources often receive assistance from other fire departments/agencies through established mechanisms identified in local mutual aid agreements. Further assistance can be obtained through an established intrastate mutual aid system. If additional assistance is required, firefighting resources can be requested from other jurisdictions through processes established under mutual aid agreements, state-to-state or regional compacts, or other agreements. If the governor of the affected state has declared an emergency, firefighting resources may be requested through the Emergency Management Assistance Compact (EMAC). If the President has declared an emergency or major disaster under the Stafford Act, firefighting resources may also be requested through ESF #4. Using existing authorities and agreements, ESF #4 can mobilize wildland and structure firefighting resources from across the country and from several foreign countries through the national firefighting mobilization system to incidents anywhere in the United States.

Except where specified in agreements or through a formal delegation of authority, assisting firefighting resources report to, and become part of the command structure of the requesting jurisdiction.

Coordination with and support of local, state (or equivalent) forester, state fire marshal, state emergency management agency, or other appropriate state, tribal, territorial, or area agency or tribal fire suppression organization. Responsibility for situation assessment and determination of resources needs lies primarily with the local Incident Commander.

Shortages of critical firefighting resources are adjudicated at the lowest jurisdictional level.

Many firefighting agencies provide additional functions such as emergency medical services, technical rescue, and hazardous materials response. During a Federal response, these resources may support multiple ESFs in support of different core capabilities.

Core Capabilities and Actions

ESF Roles Aligned to Core Capabilities

The following table lists the response core capabilities that ESF #4 most directly supports along with the particular ESF #4 actions related to each of these core capabilities. Though not listed in this table, all ESFs support the core capabilities of Planning, Operational Coordination and Situational Awareness.

Forrest County Emergency Support Function #4- Firefighting Annex

The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.

Core Capability	ESF #4 – Fire Services
Public and Private Services and Resources	• Obtains an initial fire situation and damage assessment through established intelligence procedures; determines the appropriate management response to meet the request for assistance; and obtains and distributes, through appropriate channels, incident contact information to emergency responders mobilized through ESF #4. • Analyzes and request before committing people and other resources; ensures employees will be provided with appropriate vaccinations, credentials and personal protective equipment(PPEs) to operate in the all-hazard environment to which they are assigned; and ensures that all employees involved in all-hazard response will be supported and managed by agency leaders, agency liaison of interagency incident management team. • Ensures that an all-hazard incident-specific briefing and training are accomplished prior to task implementation. This preparation will usually occur prior to mobilization where incident description, mission requirement, and known hazards are addressed. Key protective equipment and associated needs for tasks that employees do not routinely encounter or perform will be identified. • Provides command, control, and coordination resources, to include incident management teams, area command teams, and multi-agency coordination group support personnel, to local, state, tribal and territorial, area and federal agencies in support of emergency operations. • Provides staff support incident facilities, facility, property, telecommunications and transportation management.
Public and Private Services and Resources (Continued)	• Provides direct liaison with local, state, tribal, territorial, or area emergency operations centers (EOCs) and fire chiefs in the designated area, as appropriate. • Provides support to enhance the resilience of local, state, tribal, territorial, and insular area firefighting agencies.
Critical Transportation	• Provides engineering and contracting/procurement personnel and equipment to assist in emergency removal of debris, demobilization, and repair of roads and bridges. • Provides resources (personnel and equipment) necessary to clear fallen trees, brush and debris from city, county, and state roads to facilitate emergency access in disasters.

Forrest County Emergency Support Function #4- Firefighting Annex

Infrastructure Systems	• Provides engineering and contracting/procurement personnel and equipment to assist in emergency removal of debris, demolition, and temporary repair of essential public facilities, water supply, and sanitation. • Provides expertise and personnel to assist with assessment of emergency services sector critical infrastructure.
Public Health and Medical Services	• Provides appropriate personnel, equipment, and supplies, primarily for communications and aircraft for deployed local and state public health and medical teams.
Operational Communications	• Provides radio communications systems to support firefighters, law enforcement officers, and incident response operations. • Provides engineers, technicians, and liaison staff to assist Department of Homeland Security, FEMA, and the Office of Emergency Communications managers. • Provides National Interagency Radio Support systems for use by damage assessment teams and other applications. • Provides appropriate communications personnel to accompany radio systems for user training and operator maintenance indoctrination.
On-Scene Security and Protection	• May provide trained public safety, law enforcement, investigations, and security resources if appropriate authority is provided.
Mass Search and Rescue	• Provides equipment and supplies from the Interagency Cache System and use of Interagency Fire Center contract aircraft during incidents, based on standby agreements and contingency plans.
Mass Care	• Provides appropriate resources (e.g., cots, blankets, sleeping bags, personnel) for shelters.
Environmental Response/Health and Safety	• Measures, evaluates and monitors the impact of the emergency incident on National Forest Systems and Department of Interior lands. • Provide technical assistance and logistical support.

Policies

- All assistance will be administered by ESF #4, located at the Forrest County EOC, and will be coordinated directly with Forrest County Emergency Management.
- Priority is given to public and firefighter safety and protecting property, in that order.
- Coordination with all Forrest County Volunteer Fire Departments is accomplished through the County Fire Services Coordinator.
- Coordination with, and support of, county and municipal structural fire suppression organizations is accomplished through the Forrest County Fire Services Coordinator with the assistance of the Mississippi State Fire Marshall.

Forrest County Emergency Support Function #4- Firefighting Annex

- Coordination with, and support of, wild land fires are accomplished by the Forrest County Fire Services Coordinator with the assistance of the Mississippi State Forester.
- Coordination with, and support of a combination of wild land and structural fires are accomplished by the Forrest County Fire Services Coordinator with the assistance of the Mississippi State Fire Marshal.
- In all cases, State emergency management agency and other appropriate State agency and/or Tribal fire suppression organizations provide support as needed.
- All local resources will be expended or committed by local government before assistance is requested from other local governments through the State Mutual Aid Compact (SMAC) or from State government agencies.
- The Incident Command System (ICS) will be used in managing the response effort.

Concept of Operations

Assumptions

- Local fire services mutual aid agreements and other compacts will be activated as needed by the appropriate chief or on-scene officer. Note, that most fires are handled and suppressed by the local department of the affected area. However, this ESF would be activated when those resources and mutual aid agreements have been exhausted.
- All available local and private/semi-private resources will be employed to the maximum extent possible to contain and suppress both large urban fires and wildfires.
- Should the above available resources become over-taxed for whatever reason, the local jurisdiction would call Forrest County Emergency Management and request assistance from state ESF #4 resources.

General

- The responsibility of fire services in disaster situations is basically the same as in daily operations. Their primary responsibility is incident control. They are also involved on a regular basis with rescue operations, communications, hazardous materials, and support of debris clearance.
- An ESF #4 representative will report to the Forrest County Emergency Management EOC when it is fully activated during a disaster. This liaison will assist Emergency Management personnel with fire-related requests that are made by any of the local fire departments.
- All agencies with ESF #4 responsibilities will ensure that they have Standard Operating Guidelines (SOGs) in place to enable them to perform appropriate levels of incident-related mitigation, preparedness, response, and recovery.

Organization

Administration and Logistics

Forrest County Emergency Support Function #4- Firefighting Annex

All participating ESF #4 agencies are expected to:

- Coordinate their support with ESF #4
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #4 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #10 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.
- All ESF #4 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit

Field Units

- Field units are defined as those sites with an Incident Commander.
- Each individual fire department will be responsible for operations and are the primary responders within its respective jurisdiction.

Forrest County EOC

- Fire related resource requests out in the field will be directed to the Forrest County Emergency Management Agency. The Emergency Management Director will then direct the request to the ESF #4 liaison.
- The ESF #4 liaison, in conjunction with Forrest County Emergency Management Agency, will be responsible for coordinating the resource request to all rural emergency fire services operations during disasters.
- The Forrest County Emergency Management Agency has communications capabilities with all fire departments countywide. Emergency Management officials, along with the ESF #4 liaison, will monitor this communications system during a disaster or incident.

[illegible]

Preparedness

- Fire Code enforcement (only in the Cities of Hattiesburg and Petal)
- Implement public fire safety information programs
- Maintenance of equipment
- Training of all ESF #4 personnel
- Development of communication standard operating procedures
- Establishment of mutual-aid agreements
- Participation in the development and implementation of emergency exercises and drills
- Development of SOPs that conform to this plan and provide greater detail on the ESF #4 operations

Pre-Incident

- Activate ESF #4 of the Forrest County CEMP
- Notify all ESF #4 personnel
- Provide an ESF #4 liaison to coordinate the County's fire suppression capabilities.
- Work with Forrest County PIO to release special weather statements, warnings, and other precautionary information intended for emergency workers and the general population planning to use public forests or other public facilities in or near the potentially affected area.
- Support and coordinate with ESF #13 (public safety) operations.

Incident

- Fire control
- Search and Rescue operations (ESF #9)
- Operation of fire warning systems (ESF #2)
- Hazardous materials control (ESF #10)
- Upon activation of ESF #4, liaison will communicate information to all other ESF #4 members

Forrest County Emergency Support Function #4- Firefighting Annex

- Establish communication links
- Coordinate the distribution of resources as needed

Recovery

- Fire inspection/evaluation
- Identify additional potential fire hazards
- Identify unsafe buildings
- Assist in the coordination of debris clearance

Post-Incident

- Prepare an after action report to identify lessons learned, issues and recommendations for resolutions to be forwarded to the Forrest County Emergency Management Director.

Responsibilities

Forrest County Fire Services Coordinator

- Coordinate all county-related fire services activities within its jurisdiction.
- Appoint an ESF #4 representative to report to the Forrest County EOC upon activation.
- Assist in the coordination of rural hazardous materials incidents (when a hazmat incident occurs in Forrest County, dispatch will contact the Forrest County Emergency Management Agency Director, who in turn may contact MEMA if the situation warrants.
- Train all ESF #4 personnel.
- Support and coordinate with all other public safety (ESF #13) operations.
- Assist local law enforcement in coordinating non-jurisdictional area search and rescue operations (ESF #9).
- Develop departmental Standard Operating Guidelines that comply with the Incident Command System (ICS).
- Coordinate the development of written mutual-aid agreements with all volunteer fire departments.
- Assist in the coordination of countywide debris clearance along unincorporated emergency routes (ESF #3).
- Assist in submitting damage assessment reports to the Forrest County EOC.

Forrest County Emergency Support Function #4- Firefighting Annex

- A listing of available Forrest County fire service resources is maintained by each fire department in the county.

Support Agencies Responsibilities

Agency	Functions
Forrest County Law Enforcement	• Secure the fire or hazardous material area • Provide communications support to the fire departments
Forrest County Emergency Management Agency	• Coordinate and allocate resources to the command post when contacted by the on-scene Incident Commander or his representative • Contact MEMA if a significant amount of hazardous material is involved • Coordinate requested resources and activate EOC as needed
Mississippi Emergency Management Agency	• Develop and deliver training to fire services organizations in areas such as Incident Command System, Hazardous Materials, Emergency Planning, etc. • Assist with hazard analysis to determine the potential impact of specific hazards on State and local fire suppression capabilities • Coordinate exercises at the State and local level involving fire service/emergency management organizations
Mississippi Forestry Commission	• Responsible for forest fires on state and private forest lands • Support local fire control operations in state declared emergencies • Assist with debris clearance (on state-owned lands only) • Resource support
U.S. Forest Service	• Support local fire control operations in federally declared emergencies only
Military	• Supply personnel and firefighting resources to local government when officially requested and approved through MEMA

ESF Review and Maintenance

The Forrest County Fire Services Coordinator will coordinate an annual review of this ESF. It is the responsibility of each local fire department to ensure its own operational capabilities. All fire chiefs in Forrest County (urban and rural) will, in coordination with the Fire Services Coordinator, review this ESF annually. Any recommendations for change will be submitted to the Forrest County Emergency Management Agency Director for approval, publication, and distribution.

Forrest County Emergency Support Function #4- Firefighting Annex

Appendices

Appendix 1 Fire Department Resource Listing

Appendix 2 Department Resources

Appendix 1

Fire Department Resource Listing

Fire Department	Resource Type	Number

Forrest County Emergency Support Function #4- Firefighting Annex

Appendix 2

Forrest County Volunteer Fire Department

Fire Response Area	Station Locations	Total Number of Volunteers

Forrest County Emergency Support Function #5- Emergency Management Annex

ESF #5 Coordinator

Forrest County Emergency
Management Agency

Primary Agencies

Forrest County Emergency
Management Agency

Support Agencies

Forrest County Board of Supervisors
City of Hattiesburg
City of Petal
Forrest County Sheriff's Department
Hattiesburg Police Department
Petal Police Department
USM Police Department
Forrest County VFD
Hattiesburg Fire Department
Petal Fire Department
Forrest County School District
Hattiesburg School District
Petal School District
Forrest General Hospital
AAA Ambulance Service
Merit Health Wesley
Private Utility Companies
Forrest County Department of Human
Services
The Salvation Army
South Central Chapter American Red
Cross
Damage Assessment Team Members

State Non-governmental Support Organizations

American Red Cross
Mississippi Volunteer Organizations
Active in Disasters (MSVOAD)
Radio Amateur Civil Emergency
Services
Civil Air Patrol

State ESF Coordinator

Mississippi Emergency Management
Agency

State Primary Agency

Mississippi Emergency Management
Agency

Introduction

Purpose

The purpose of this Emergency Support Function (ESF) is to collect, analyze, and share information about a potential or actual emergency or disaster in order to enhance the response and recovery activities of the local governments. Emergency Management supports overall activities for incident management and maintains the Forrest County Emergency Operations Center (EOC) in a state of readiness.

Scope

This ESF is most applicable to the local governmental departments and private and volunteer organizations that commonly report to the Forrest County EOC during an activation. These

Forrest County Emergency Support Function #5- Emergency Management Annex

agencies are found above as support agencies. This annex is applicable to all other agencies and jurisdictions in that they have a requirement to provide situation reports when their organization has been affected by an event.

ESF #5 facilitates information flow in the pre-incident phase in order to place assets on alert or to preposition assets for quick response. During the post-incident response phase, ESF #5 transitions and is responsible for support and planning functions. ESF #5 activities include those functions that are critical to support and facilitate multiagency planning and coordination for operations for large scale incidents. This includes alert and notification, staffing of the EOC, incident action planning (IAP), providing support to operations, logistics, information management, facilitation of requests for state assistance, resource acquisition and management, worker safety and health management, facilities management, financial management, and other support as required.

Relationship to Whole Community

This section describes how ESF #5 relates to other elements of the whole community. Basic concepts that apply to all members of the whole community include:

- Effective incident response activities rely on information and planning systems that provide a common operating picture to all members of the whole community engaged in a response.
- Information needs should be defined by the jurisdiction/organization. These needs are often met at the local, state, tribal, and area levels, in concert with nongovernmental organizations (NGOs) and the private sector, and primarily through preparedness organizations.
- Procedures and protocols for the release of warnings, incident notifications, public communications, and other critical information are disseminated through a defined combination of networks used by emergency operations centers. Notifications are made to the appropriate jurisdictional levels and to NGOs and the private sector through defined mechanisms specified in comprehensive emergency management plans (CEMP) and IAPs.
- Appropriate auxiliary aids and services are used to effectively communicate information, warnings, notifications, and other critical information for individuals with disabilities and others with access and functional needs.

Local, State, Tribal, and Area Governments

Local, state, tribal, and area government elements engage in incident planning and collaborate with state planning elements as part of unified response efforts.

Private Sector/Nongovernmental Organizations

The private sector and NGOs are important sources of critical incident information. Many members of the private sector and NGOs with a role in response participate in planning efforts, as well as conduct their own.

Forrest County Emergency Support Function #5- Emergency Management Annex

Core Capabilities and Actions

ESF Roles Aligned to Core Capabilities

The following table lists the Response core capabilities that ESF #5 most directly support along with the related ESF #5 actions. Though not listed in the table, all ESFs, including ESF #5 support the core capabilities of Operational Coordination. **The actions listed beside each core capability in the table apply to local, state, tribal, federal, and Non-Governmental Organizations (NGOs).**

Core Capability	ESF #5 – Emergency Management
Planning	• During an actual or potential incident, coordinates and conducts planning activities.
Situational Assessment	• Maintains situational awareness of an incident. • Provides an informational link to members of the whole community. • Serves as the centralized conduit for situation reports, geospatial data, and other decision support tools. • Provides decision relevant information regarding the nature and extent of an incident, as well as cascading effects, in support of a potential or actual coordinated state response.
Public Information and Warning	• Provides information for the development of credible, culturally appropriate, and accessible messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions and facilitate the transition to recovery.

Policies

- The Incident Command System (ICS) should be used in any size or type of disaster to manage response personnel, facilities, and equipment.
- ESF #5 is responsible for establishing the county support infrastructure in the affected area in anticipation of requirements for prevention, response, recovery, and mitigation.
- Resource allocation and tasking are coordinated through ESF #5 using the Forrest County Emergency Management Agency mission assignment process and other procedures outlined in the Forrest County CEMP Basic Plan and applicable Standard Operating Guidelines (SOGs).
- Local requests for state assistance to the Governor under Title 33-15, Mississippi Code 1972, and Annotated are coordinated through Forrest County Emergency Management Agency.
- ESF #5 serves as the centralized conduit for county situation reports (SitRep) from the various ESFs, departments and agencies participating in the incident action planning process coordinated by ESF #5.
- ESF #5 should be coordinated from the Forrest County EOC located at 4080 US Hwy 11 Hattiesburg, MS 39402.

Forrest County Emergency Support Function #5- Emergency Management Annex

- The Forrest County EOC will be managed by the Forrest County EMA Director or designee.
- Departments and agencies participate in the IAP process coordinated by ESF #5.
- When activated, agencies in ESF #5 will operate under this document and the current Forrest County EOC SOG.
- ESF #5 staff supports the implementation of mutual aid agreements as per the *Statewide Mutual Aid Compact* (SMAC) agreement to ensure a seamless resource response to affected areas.
- The Forrest County EOC is responsible for notifying the county and municipal departments and agencies, as well as emergency management organizations, of potential threats to enable the elevation of operational response postures or the pre-positioning of assets.
- ESF #5 provides representatives to staff key positions in the Forrest County EOC.
- ESF #5 staff establishes required field facilities, supplies, and equipment to support local activities related to the management of incidents. These facilities include, but are not limited to the Forward Area Command, Joint Information Center (JIC), mobilization centers, and state staging areas.

Concept of Operations

Assumptions

- There will be an immediate and continuing need to collect, process, and disseminate situational information, to identify urgent response requirements during a disaster (or the threat of one) and to plan for continuing response, recovery and mitigation activities.
- Assessment of damage impacts and EOC operations may be delayed due to minimal staffing.
- Local Governments impacted the most will be given priority for assistance and support as needed and available.
- During the early stages of the event little information will be available and the information received may be vague and inaccurate. Verification of this information can delay response to inquiries.
- Reporting from local governments to the EOC will improve as the event matures.
- Reporting of information may be delayed due to damaged telecommunications infrastructure.

General

Forrest County Emergency Support Function #5- Emergency Management Annex

- ESF #5 provides trained and experienced staff to fill management positions in the Command, Operations, Planning, Logistics, and Administration/Finance Sections of the Forrest County EOC upon activation.
- The role of support agencies involved in emergency management response activities is to collect raw data in the field and provide it to their Emergency Coordinating Officer (ECO) or designated personnel of Forrest County EMA in the EOC.
- When ESFs are activated, their ECO or primary agency coordinator will assign a liaison to work with ESF #5.
- ESF #5 provides ESF #15 timely and accurate information to distribute to the media, public officials, and the general public.

Organization

The Forrest County EOC is organized under the basic concepts of the National Incident Management System (NIMS), the Incident Command System (ICS) and consists of several functional areas: Operations, Public Information, Liaison, Planning, Logistics, and Finance/Administration. Under the NIMS/ICS structure areas of command have room to expand and contract as needed.

Local governments have the responsibility to provide support consistent with the ESFs which support the ICS structure.

Administrative and Logistical support

All participating ESF # 5 agencies are expected to:

- Provide representation to the Forrest County EOC ESF #5 section in order to maintain continuity for information and planning throughout all the ESFs that are participating in the event.
- Coordinate their support with ESF #5.
- Maintain operational logs, employee time logs, messages, requests for action or purchase, and other appropriate documentation which will be maintained for future reference.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #5 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #5 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used

Forrest County Emergency Support Function #5- Emergency Management Annex

during the support activities related to emergency or disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.

- All ESF #5 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

- Prepare standardized reporting formats and forms, and establish reporting procedures/guidelines to include development of display boards.
- Maintain the Forrest County CEMP and the emergency management program of the county.
- Annually review plans and make necessary corrections, changes and additions.
- Advise and assist other agencies and local governments in the development of emergency or disaster plans and programs in compliance with applicable County, State, or Federal laws, rules, regulations, and executive orders.
- Coordinate emergency and disaster related training and orientation to county and local officials to meet the NIMS/ICS requirements and to familiarize them with emergency or disaster related responsibilities, operational concepts, and procedures/guidelines.
- Establish and maintain an awareness campaign to disseminate information to the public and the news media regarding personal safety or survival, emergency response actions, and details of disaster assistance programs. After an emergency or major disaster declaration, local information programs should be coordinated with those of state or federal government.
- Establish and maintain a county wide capability to provide warning to the public through available warning systems such as radio/television, sirens, and telephone notification systems.
- Make available emergency preparedness information and presentations to the public.

Pre-Incident

- Develop an SOG and checklist for ESF #5 in conjunction with supporting agencies.
- Establish contacts with local supporting agencies and local government officials who will be providing information.
- Where there is a credible threat, Forrest County EMA will take several actions including, but not limited to, activating the EOC at the appropriate level and pre-positioning strategic assets.

Forrest County Emergency Support Function #5- Emergency Management Annex

ESF #5 will monitor the situation and notify local and state entities as appropriate.

Incident

- Activate the Forrest County EOC as required. Actions include alert, notification, and situation reporting. Once activated, ESF #5 is operational at the EOC on a determined operational period based on the incident.
- Maintain constant communications with the State Emergency Operations Center (SEOC) to coordinate the joint local and state operations.
- Establish contacts with the local government officials to coordinate the use of resources.
- Develop the IAP for each operational period.
- Analyze resource requirements based on information received.
- Provide needed resources when requested.
- Collect, process, and distribute all related information including county situation reports to the SEOC.
- Coordinate with ESF #2 and ESF #15 to identify alternate means of getting information to all local officials and agencies to ensure channels of communication remain open.

Recovery

- Continue to gather information to prepare and distribute situation reports (SitReps), as needed.
- Review PIO statements for accuracy.
- Create and coordinate a Recovery Task Force from local representatives to assist with recovery phase operations.
- Coordinate Public and Individual Assistance programs with state and federal government as needed.
- Coordinate and conduct a post-disaster situation analysis, also known as an after action review (AAR), to review and determine the effectiveness of the pre-established tasks, responsibilities, reporting procedures/guidelines and formats to document any crucial lessons learned and to make revisions to plans as needed for future events.
- Procure all available documentation of event for archiving.

Forrest County Emergency Support Function #5- Emergency Management Annex

Post-Incident

- Conduct mitigation activities which include but are not limited to surveys, mapping, prevention, property protection, public education and awareness, natural resource protection, emergency services or structural projects.

Responsibilities

Forrest County Emergency Management Agency

- Initiates actions to identify, staff, and operate the EOC.
- Maintains the Forrest County CEMP and associated plans.
- Attends Local Emergency Planning Committee (LEPC) meetings.
- Coordinate Public and Individual Assistance programs with local, state, and federal government as needed.
- Develops procedures/guidelines on how to coordinate ESF #5 related needs.
- Ensures that personnel receive training in order to carry out their responsibilities.
- Works with support agencies to develop and maintain a working relationship and procedures/guidelines to activate needed support activities.
- Provide ongoing status reports as requested.
- Assist in identifying personnel and resources to support this Annex.
- Work with all Supporting organizations to keep this Annex up-to-date.

Support Agencies' Responsibilities

Agency	Functions
American Red Cross	• Support the development of an SOP in conjunction with primary and supporting agencies. • Maintain and report on shelter status and human needs. • Recognize the state's ethnic and cultural diversity and consider the consequences of impact on delivery of goods and services to the affected population. • Support action plan and development.
Mississippi Volunteer Organizations Active in Disasters (MSVOAD)	• Support the development of SOPs in conjunction with the primary and secondary agencies. • Provide disaster information on Mississippi Volunteer Organizations Active in Disasters (MSVOAD) operations for situation reporting. • Support action plan and development.

Forrest County Emergency Support Function #5- Emergency Management Annex

Forrest County Department of Human Services	• Support the development of an SOP in conjunction with primary and support agencies. • Supply information on ESF #6 human needs issues. • Maintain and report information on shelter availability and support action plan and development.
Radio Amateur Civil Emergency Services (RACES)	• Support the development of SOPs in conjunction with the primary and supporting agencies. • Provide information on status of communications throughout the state. • Provide or supplement communication during emergencies at the Forrest County EOC. • Support state and local communications operations requirements as specified in the RACES Plan and accompanying procedures.
Civil Air Patrol	• Support the development of an SOP in conjunction with primary and supporting agencies. • Provide information based on pre-and post-disaster aerial reconnaissance and photography. • Provide personnel for analysis in emergency action planning.
All Support Agencies	• Work with the primary agency to develop and maintain a workable emergency management function. • Develops and maintains their own SOP/SOGs for response to requests for support. • Attend Local Emergency Planning Committee (LEPC) meetings. • Participate in the post-disaster situation analysis to review and determine the effectiveness of the pre-established tasks, responsibilities, reporting procedures/guidelines and formats to document any crucial lessons-learned. • Assist in identifying personnel and resources to support this Annex. • Work with Forrest County EMA to keep this Annex up-to-date.

ESF Review and Maintenance

Forrest County Emergency Management Agency will coordinate an annual revision of this ESF with all supporting agencies. Unscheduled reviews may be conducted based on incident experience or changing laws and regulations. Recommendations will be submitted to the Forrest County Emergency Management Agency as needed for approval, publication, and distribution.

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

ESF #6 Coordinator

Forrest County Department of Human Services

Primary Agencies

Forrest County Emergency Management
Southeast MS Chapter, Mississippi Region,
American Red Cross
Forrest County Department of Human Services
Salvation Army

Support Agencies

Forrest County Emergency Management
Forrest County Health Department
Forrest County & Municipal Law Enforcement
Forrest County & Municipal School Districts
Forrest County & Municipal Public Works
Military Support

State ESF #6 Coordinator

Mississippi Department of Human Services

State Primary Agencies

Mississippi Department of Human Services
Mississippi Division of Medicaid
Mississippi Department of Health
Mississippi Emergency Management Agency
Mississippi Department of Education
Mississippi State Board for Community and Junior Colleges
Mississippi Institutions of Higher Learning

State Non-governmental Organizations:

American Red Cross
Salvation Army
Amateur Radio Stations

Introduction

Purpose

The purpose of this ESF is to coordinate activities involved with the emergency provision of temporary shelters and emergency mass feeding that will be conducted in Forrest County during an incident or disaster requiring such activity.

Scope

Should a disaster overwhelm Forrest County's mass care capabilities, the state ESF #6 of the Mississippi Comprehensive Emergency Management Plan would be activated with the Mississippi Department of Human Services being the primary coordinator. In the event that Federal ESF #6 mobilization is required, then the Department of Homeland Security/Emergency Preparedness and Response/Federal Emergency Management Agency would be the lead agency.

Relationship to Whole Community

This section describes how ESF #6 relates to other elements of the whole community.

A basic premise of emergency management is that disaster response begins and ends at the community level. This is particularly true for the functions of ESF #6, as many disasters occur with little or no warning, thereby, requiring that life-sustaining services be provided quickly to prevent additional suffering and loss of life. ESF #6 partner agencies and organizations rely on the whole community to meet the needs of disaster survivors.

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

Key elements of the whole community include individuals with disabilities and others with access and functional needs 1) whose needs must be considered well in advance when preparing for disasters and emergencies and 2) who are important partners to support the delivery of core capabilities during incident response (e.g., through associations and alliances that serve these populations). People with disabilities and others with access and functional needs include individuals who are from diverse cultures, races, and nations of origin; individuals who do not read, have limited English proficiency, or are non-English speaking; people who have physical, sensory, behavioral, mental health, intellectual, developmental and cognitive disabilities; senior citizens with and without disabilities or other access and functional needs; children with and without economically or transportation disadvantaged; women who are pregnant; individuals who have chronic medical conditions; and those with pharmacological dependency.

Community disaster and emergency plans should include provisions for individuals who own household pets or have responsibility for service and other animals. Planning factors should include resources and processes for the rescue, transportation, care, shelter, and essential needs of animals.

The whole community also includes local, state, tribal, area and federal governments; nongovernmental organizations (NGOs), including voluntary, faith-based, community-based, and other nonprofit organizations in the civic/nonprofit sector; academia; the private sector; individuals; and communities. Partners from all elements of the whole community work together to address shortfalls, and help to ensure that the life-sustaining needs of disaster survivors are met.

Local, State, Tribal, and Area Governments

Local, tribal, and area governments are is responsible for the welfare of those who reside in their jurisdictions. Forrest County designates one or more official(s) to coordinate with State ESF #6 during incidents requiring a coordinated response.

At the local level, government agencies, NGOs, and the private sector coordinate ESF #6 activities to meet the immediate needs of disaster survivors. When the impact of the incident exceeds local resources, the state may provide additional support. Resources from state-level NGOs and the private sector may augment local response capabilities.

Local, state, tribal, and area governments have obligations under civil rights laws to ensure equal opportunity for individuals with disabilities and others with access and functional needs when providing mass care services.¹

Individuals/Households

Disaster response begins with individuals and households executing their disaster plans, which should include having sufficient food and water on hand, a plan for communication, pre-identified shelter locations, pre-identified evacuation routes, and a “Go Kit” that includes important documents, lists of medications, household pet or service animal vaccination records, and photo identification for all members of the household. Individuals with disabilities or others with access and functional needs implement their plan for accessible transportation and/or support resources,

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

including service animals. Households with animals activate their plan for the evacuation, transportation, sheltering, and care of their animals.

Private Sector/Nongovernmental Organizations

This ESF #6 Annex uses the term NGO to refer to voluntary, faith-based, community-based, and other nongovernmental organizations in the civic/nonprofit sector.

NGOs, together with academia and the private sector, are integral elements of the whole community response, coordinating with local, state, tribal, area, and/or federal partners to provide ESF #6 resources, programs, and services to affected individuals/households and communities. These partners collaborate to resolve the disaster-related unmet needs of affected individuals and communities.

NGOs and the private sector also provide operational information to local, tribal, area, and State ESF #6 or equivalent points of contact. This information allows ESF #6 planners to identify actual or potential shortfalls and/or excesses and adjust services to the needs of the community.

Core Capabilities and Actions

ESF Roles Aligned to Core Capabilities

The following table focuses on the response core capabilities that ESF #6 most directly supports, including the related ESF #6 actions. Though not listed in the table, all ESFs, including ESF #6, support the core capabilities of Planning, Operational Coordination and Public Information's and Warning. **The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.**

Core Capability	ESF #6- Mass Care, Emergency Assistance, Housing and Human Services
Mass Care Services	• Supports local, tribal, and area governments and NGOs in the coordination and provision of mass care, emergency assistance, temporary housing, and human services resources, programs, and services. • Provides life-sustaining services to the affected population, including hydration, feeding, and sheltering, as well as support for reunifying families. • Supports the establishment, management, and operation of congregate and non-congregate care facilities. • Coordinates with local, tribal and area governments and NGOs to facilitate the return of evacuees to their pre-disaster or alternate locations. • Develops an initial temporary housing strategy to transition survivors from congregate to non-congregate care alternatives and provides relocation assistance or interim housing solutions for households unable to return to their pre-disaster residence. • Anticipates and identifies current and future ESF #6 requirements in coordination with local and state government, NGOs, and private sector partners. • Activates ESF #6 data systems such as shelter locations, number of occupants, POD locations, etc.

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

	• Acquires, transports, and delivers ESF #6 resources and services to meet the needs of disaster survivors, including children and individuals with disabilities and others with access and functional needs. • Provides general care for separated/unaccompanied minors until they are placed in the care of appropriate authorities. • Supports nontraditional congregate care facilities. • Provides technical assistance for the development of local, state, tribal, NGO, and private sector operational plans for mass care, emergency assistance, temporary housing, and human services. Mass Care • Sheltering: Provides life-sustaining services in congregate facilities that provide a safe, sanitary, and secure environment for individuals and households displaced by disasters. Also includes support to survivors sheltering in place and in ESF #8 medical shelters. • Feeding: Provides feeding services at fixed sites and distribution sites and through mobile feeding units. Feeding services may include hot or shelf-stable meals, infant formula, baby food, snacks, beverages, and food packages, as well as diverse dietary meals (e.g., low sodium, low fat, vegetarian/vegan, and halal, kosher). ESF #6 works in concert with ESF #11 and local, state, and tribal governments; NGOs; and the private sector to acquire, prepare, cook and/or distribute food and food supplies. Additional support may include the provision of technical assistance for the development of state feeding plans. • Distribution of Emergency Supplies: Acquires and delivers life-sustaining resources, hygiene items, and clean-up items to meet the urgent needs of disaster survivors. Additional support includes transportation, warehousing, equipment, technical assistance, and other mission-critical services. • Reunification: Provides facilitated assistance for children separated from their parent(s)/legal guardian(s), as well as adults from their families, due to disaster. Supports reunification efforts at the local, state, and/or tribal levels with technical assistance. Emergency Assistance • ESF #6 coordinates resources and emergency assistance in support of local, state, tribal governments, NGOs, and the private sector. • Voluntary Agency Coordination: Facilitates the coordination of NGOs, places of worship, and the private sector to ensure that capabilities, resources, and services are integrated into local, state and tribal response. • Volunteer and Donation Management: Coordinates unaffiliated volunteers, unaffiliated organizations, and unsolicited donated goods to support all ESFs. • Essential Community Relief Services: Coordinates and delivers debris removal from disaster survivor residences; sandbagging; mud-out; tear-out; chainsaw work; warehouse management; transportation and distribution coordination; childcare services; emotional and spiritual care
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Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

	and counseling; financial assistance; financial counseling; disaster-related case work and case management; and other essential services. • Mass Evacuation: Supports affected and host jurisdiction mass evacuation activities, including provision of mass care services and tracking the movement of evacuees, their household pets, service animals, and medical equipment. Deploys resources to support affected and host jurisdiction evacuation operations to include mass evacuation tracking system kits and staff to provide technical assistance. In coordination with ESF #8, provides mass care services to medical patient evacuees. (Note: Evacuees who have chronic medical conditions may be evacuated with the general population. For evacuation of patients, refer to ESF #8.) • Disability and Other Access and Functional Needs Support: Coordinates and provides equipment, supplies, and services required to assist children and adults with disabilities and others with access and functional needs to maintain their independence. • Household Pets and Service Animals: In cooperation with ESF #11, coordinates and provides rescue, transportation, shelter, reunification, care, and essential needs of household pets and service animals during response operations to ensure their safety and well-being. Service animals are not pets and may not be separated from the individual with a disability or other access and functional need; service animals should be permitted anywhere the public goes. • Nonconventional/Transitional Sheltering: Provides resources and technical assistance in support of local, state, tribal, affected and host area governments and NGOs when traditional sheltering is not available or feasible or when the impact of the disaster is of such magnitude that extended shelter operations are required. Temporary Housing (highlighted items refer to federal capabilities) • Temporary Roof Repair: Quick repairs to damaged roofs on private homes that allow residents to return to and remain in their own homes while making permanent repairs. • Repair Program: Provides financial assistance to homeowners or landlords for the repair of their primary residence, utilities, and residential infrastructure. • Replacement Program: Provides financial assistance to homeowners to assist with the replacement of their destroyed primary residence. • Housing Resource Databases: Identifies housing resources from the private sector and other local agencies available to disaster survivors, including physically accessible housing options. • Rental Assistance: Provides financial assistance to eligible disaster survivors for the rental of a housing resource. • Transportation to Other Locations: Assists individuals and families relocating outside of the disaster area to locations where short- or long-term housing resources are available. Transportation services may also include returning survivors to their pre-disaster location. • Direct Financial Housing: Makes payments directly to landlords for a rental resource on behalf of disaster survivors.
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Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

	• Hotel/Motel Program: Provides temporary accommodations for eligible displaced survivors unable to return to their pre-disaster primary residence. • Direct Housing Operations: Provides temporary housing units to survivors when other housing resources are not available. Units provided are appropriate to the needs of the community and include units accessible to those with disabilities and others with access and functional needs. • Mortgage Relief: Issues moratoriums on foreclosures of federally insured loans. Loan servicers provide special forbearances, loan modifications, refinancing, and waivers of late charges. Human Services (highlighted items refer to federal capabilities) • Human Services provides assistance to address the non-housing needs of individuals and families. • Crisis Counseling: Provides crisis counseling, mental health services and other similar immediate, short-term psychological assistance to disaster survivors. • Disaster Case Management: Assists eligible survivors with developing and carrying out a disaster recovery plan. Streamlines assistance, prevents duplication of benefits, and provides an efficient referral system. • Legal Services: Provides low-income survivors with free legal advice. • Unmet Needs: Helps disaster survivors with medical, dental, funeral, personal property, transportation, moving/storage, and other expenses. • Supplemental Nutrition Assistance: Provides eligible households with supplemental nutrition assistance through established programs when income is lost due to a declared disaster. • Tax Relief: State, territorial, and Federal governments provide reimbursement or tax relief to survivors with substantial verified disaster-caused losses. • Unemployment Assistance: Provides survivors who have lost their jobs due to a disaster with unemployment benefits.
Public and Private Services and Resources	• Assesses the need for and coordinates the provision of life-sustaining ESF #6 services, resources, and supplies from government agencies, NGOs, and the private sector. • Gathers, assesses, prioritizes, coordinates, and communicates resource requirements. • Provides subject matter expertise to identify resource requirements to meet the life-sustaining needs of disaster survivors and their household pets and service animals. • Gathers, assesses, prioritizes, and communicates relevant information. • Communicates plans, requirements and strategies to core capability providers. • Acquires and manages resources, supplies, and services from core capability providers via contracts, mission assignments, inter-agency agreements, and donations.

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Public Health and Medical Services	- Identifies and communicates requirements for life-saving and life-sustaining needs of disaster survivors and household pets and service animals. - Coordinates with core capability service providers to ensure that ESF #6 service delivery locations are appropriately provisioned and operated in a safe, sanitary, secure, and timely manner. - Gathers, assesses, prioritizes, coordinates, and communicates public health and medical requirements of survivors and their household pets and service animals in congregate care facilities to core capability - Gathers, assesses, prioritizes, and communicates relevant public health and medical needs information to survivors in facilities where mass care services are provided. - Communicates plans, requirements, and strategies to core capability service providers. - Acquires and manages resources, supplies, and services from core capability service providers via contracts, mission assignments, interagency agreements, and donations.
Critical Transportation	- Supports the collection, analysis, dissemination, and reporting of transportation infrastructure damage from ESF #6 service delivery sites. - Identifies, requests, and acquires transportation resources for the delivery of life-sustaining supplies and services to the affected area(s). - Identifies and provides critical transportation for survivors with disabilities and others with access and functional needs. - Supports mobilization and implementation of mechanisms to track the movement of evacuees, resources, and household pets, individuals with disabilities or other access and functional needs with their service animals, medical equipment, and luggage. - Provides mass care support to survivors at embarkation, debarkation, and reception centers; evacuation transportation hubs; and post-decontamination areas to make sure that basic needs are met, including hydration, feeding, tracking, medical needs, and information. - Provides resources, subject matter expertise, and coordination with other State components and ESF #6 partners to support mass evacuation activities and ensure the safe evacuation of household pets and service animals. (Note: Evacuees who have chronic medical conditions may be evacuated with the general population. For evacuation of patients, refer to ESF #8.) - Provides resources for the care of survivors evacuating from the affected area. - Communicates plans, requirements, and strategies to core capability service providers. - Acquires and manages resources, supplies, and services from core capability service providers via contracts, mission assignments, interagency agreements, and donations.
Fatality Management Services	- Provides mechanisms to support notification/transportation of family members to make appropriate arrangements for deceased relatives. - Provides support and funding for crisis counseling services to the bereaved, as well as for local, state, tribal, and area crisis counseling

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	programs. • Provides transportation and mass care services for survivors reuniting with deceased family members. • Communicates plans, requirements, and strategies to core capability service providers. • Acquires and manages resources, supplies, and services from core capability service providers via contracts, mission assignments, interagency agreements, and donations.
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Policies

ESF #6 policies apply to Local and State departments and agencies and the American Red Cross for activities relating to potential or actual States of Emergency declared by the Board of Supervisors Governor. Underlying policies include the following:

- ESF #6 support may vary depending on an assessment of incident impact, the magnitude and type of event, and the stage of the response and recovery efforts.
- ESF #6 supports mass care activities and provides services without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- ESF #6 support and services provided will be in accordance with existing Federal, State and Local statutes, rules, and regulations.
- Personnel will be assigned to support ESF #6 functions in accordance with the rules and regulations of their respective parent agencies.
- ESF #6 will coordinate with ESFs #1, # 3 # 5, and #14 regarding recovery and mitigation assistance, as appropriate.
- ESF #6 will reduce duplication of effort and benefits to the greatest extent possible. This includes streamlining assistance as appropriate and identifying recovery and mitigation measures to support municipal planning efforts.

Concept of Operations

Assumptions

- The local government has the primary responsibility of sheltering citizens.
- The local government will first call trained voluntary agencies for mass care services. Red Cross approved shelter sites, (ARC 44-96) guidelines for hurricane shelters, will be considered as a first step to identifying shelters. If the local government becomes overwhelmed, state services are requested.
- The Forrest County Department of Human Services (DHS) will act in conjunction with Red Cross to carry out all duties in meeting victims' needs. This includes supporting Red Cross in

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the operation of shelters/temporary housing, emergency human needs, and limited health and medical needs (ESF #8).

General

- The Forrest County Emergency Management Director, along with local officials, has the responsibility and authority to open shelters.
- Upon notification by Emergency Management of a potential or actual event requiring response, all designated ESF #6 liaisons will report to the Forrest County EOC. Direct coordination of mass care activities will take place at this location.
- ESF #6 will manage and coordinate mass care assignments from the Forrest County Emergency Operations Center (EOC) when activated.
- When necessary, the American Red Cross and Salvation Army, with the support of the Forrest County Department of Human Services, will carry out all duties in meeting disaster survivors' needs.
- Shelter and feeding managers will be appointed to each shelter and will be responsible for the operation of their individual task/shelter.

Mass Care

General Population Shelters

- When an event gives prior warning, public shelters will be opened and stocked. Those persons not using public shelters will take refuge in their homes, evacuate, or use other private shelter areas.
- Shelters might be used during floods, hazardous materials accidents, fires, hurricanes, tornadoes, earthquakes etc.
- Flood shelter utilization considers elevation criteria, surrounding topography, and structural integrity. Hazardous materials shelters consider the location of the hazard, wind direction, and duration of the hazard.
- Shelters have been pre-identified in Forrest County utilizing the above consideration criteria. Various Public Schools are also available as additional shelters. (An official list can be found in WebEOC© and Appendix 1).
- All citizens who choose to locate at these temporary emergency public shelters will require food, water, the possible provision of emergency first aid, and a wide variety of other mass care services.
- The use of shelters will substantially reduce the number of casualties resulting from a disaster situation.

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- Shelters will also be opened following a disaster because of destroyed or uninhabitable homes (i.e. tornado or flood), and may need to remain open for periods of time to house emergency clean-up personnel.
- In a major disaster requiring shelters to be opened and staffed, ESF #6 liaisons assigned to the Emergency Operations Center will keep essential records and charts of shelter status. (This will be a representative from the Red Cross and/or Department of Human Services). This person will keep the Forrest County Emergency Management Director fully informed on shelter status at all times throughout the emergency.

Medical Functional Needs Shelters

- Some residents of the shelters will have special medical or functional needs and will need to have a caregiver accompany them to a shelter. The American Red Cross and the Department of Human Services **will not** be responsible for nor will be able to take care of these persons.
- The Mississippi Department of Health (MSDH) has lead responsibility for identifying staffing resources needed at Regional and State Medical Functional Needs Shelters in conjunction with the Mississippi Department of Rehabilitation Services and Mississippi Division of Medicaid.
- MSDH shall work in conjunction with the State Board of Community and Junior Colleges to pre-identify locations to be used as Functional Needs Shelters.
- Additional guidance and information for Medical Functional Needs Sheltering can be found in ESF #8 of the State CEMP.
- Requests for Medical Functional Needs Shelters should be forwarded through the Forrest County Emergency Management Director to MEMA.

Pet and Animal Shelters

- The Mississippi Board of Animal Health (MBAH) serves as the lead agency for sheltering requirements for pet and animal shelters during an incident.
- MBAH will identify pre-designated locations for use as pet and animal shelters or pet-friendly shelters.
- Additional guidance and information for Pet and Animal Sheltering can be found in ESF #11 of the State CEMP.

Opening Shelters

- Shelters would be required in two major emergency situations: (1) A local emergency situation, when residents of Forrest County would require sheltering within the County, or (2) a surrounding area emergency requiring evacuation, when residents of surrounding Counties would require sheltering in Forrest County.
- Local government will open shelters in coordination with the State. MEMA, in conjunction with the MDHS, will have overall management of shelters for the State.

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- Forrest County Emergency Management Officials will notify Red Cross, Forrest County Department of Human Services, and all Mass Care support agencies of ESF #6 activation. Emergency Management will request the opening of pertinent general population shelters.
- Ensure adequate communications link between shelters and the EOC is provided.

Shelter Resources

- A list of Forrest County shelters can be found in this ESF #6 Annex, WebEOC© and Appendix 1.
- Shelter kits containing appropriate forms, handbooks, and identification have been prepared and are maintained by Red Cross.
- Red Cross also provides cots, communication equipment and other items necessary to shelter support.

Mass Feeding/Procurement of Food Resources

- Feeding in the Mass Care facilities will be the responsibility of the American Red Cross and the Salvation Army with support from the County Agent's Office, and the Department of Human Services.
- The shelters with designated kitchen facilities will be considered as sites for mass feeding (See Appendix 1).

Organization

Administrative and Logistical Support

All participating ESF #6 agencies are expected to:

- Coordinate their support with ESF #6.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #6 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #6 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.

- All ESF #6 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

- Southeast Mississippi Chapter, Mississippi Region of the American Red Cross, with support from Salvation Army and the Forrest County Department of Human Services oversees development of Standard Operating Procedures (SOPs) and checklists in conjunction with other primary and supporting agencies for this ESF.
- Identification of suitable shelters for various hazards.
- Obtaining cooperation of building owners for use of shelter space.
- Training of shelter managers and volunteers.
- Preparation of shelter management kits.
- Stockpiling of certain shelter supplies.
- Public education regarding shelters.
- Developing and maintaining District School Crisis Management Manuals.

Pre-Incident

- Notification of all Emergency Services.
- Develop and coordinate shelter operations with special emphasis on lessening the risks of special needs “At Risk” populations.
- Public information activities.
- Shelters will be stocked with appropriate supplies immediately prior to their activation. Necessary supplies will be obtained by shelter staff.

Incident

- Open and staff shelters as needed.
- Distribute shelter kits and supplies.

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- Complete shelter stocking.
- Advise the ESF #6 liaison to the EOC when shelter occupancy has reached full capacity (80 % of maximum capacity) space has been approached to allow for coordination to open additional shelters.
- Expand and identify shelter sites outside of those pre-determined by other sources.
- Maintain communications between shelters and the EOC.

Recovery

- Keep shelters operational until emergency is manageable.
- Deactivate unnecessary shelters.
- As shelter and feeding operations are beginning to be phased out, relay or provide information regarding re-entry to point(s) of origin to all active shelter locations for dissemination to evacuees.
- Re-entry information, affecting evacuees from other counties/states sheltering in Forrest County, will be obtained from the State Emergency Operations Center and disseminated by Forrest County ESF #6 personnel to the appropriate shelter locations.
- Forrest County ESF #6, with the affected County Government, will assist in re-entry decisions. Evacuees cannot be detained from leaving shelter if they desire. However, they may be detained from re-entering a disaster area if officially deemed unsafe.

Post-Incident

- Facilitate movement to temporary housing.
- Coordinate cleanup and restoration of facilities used for shelters.
- The Mass Care lead prepares an after-action report for closeout to the Forrest County Emergency Management Director. The after-action report identifies key problems, indicates how they are to be/were resolved, and makes recommendations for improving response operations. ESF #6 organizations assist in preparation of the after-action report.

Responsibilities

Southeast Mississippi Chapter, Mississippi Region, American Red Cross

- Send a designated representative to the Forrest County EOC for shelter coordination.
- Designate and train shelter managers and volunteers for all Forrest County shelters.
- Maintain and keep current a contact list of shelter managers with a day and night phone number.

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- At the Emergency Manager's request, operate general population shelters with Red Cross agreements.
- Establish shelter communications with the EOC.
- Provide shelter management kits and shelter registration forms.
- Coordinate all sheltering activities with the American Red Cross National Headquarters and the Mississippi Department of Human Services state office.
- Close and phase out shelter operations.
- Responsible for feeding operations in coordination with Salvation Army.
- Develop and maintain a thorough and current mass care SOP.

Salvation Army

- Provide mass feeding operations in coordination with Red Cross.
- Assist the Red Cross and Forrest County Human Services with other shelter operations.

Department of Human Services

- Support and coordinate with the American Red Cross and the Forrest County Emergency Management Director in shelter identification.
- Maintain communications with the Emergency Operations Center.
- Support Red Cross with shelter operations, specifically registration and monitoring for unmet needs and critical issues.
- Coordinate with Red Cross and all support agencies to review and update/revise this ESF #6 Annex annually and submit to the Forest County Emergency Management Director, for approval and publication.
- Develop and maintain a thorough and current mass care SOP.

Note: Human Services personnel will be trained by Red Cross officials in shelter fundamentals and management.

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

Support Agencies Responsibilities

Agency	Functions
Forrest County Emergency Management Agency	• Develop a complete county shelter and feeding program in conjunction with the American Red Cross, Salvation Army with support from the Forrest County Department of Human Services. • Responsible for initiating shelter openings. • Responsible for shelter surveys and the proper making of shelters. • Provide public information and education on sheltering. • Activation and deactivation of shelters as needed. • Assist in locating communications capabilities to shelters.
Forrest County Health Department	• Coordinate/consult with the primary agency/shelter managers regarding Public Health issues of sanitation and epidemiology in shelters. • Provide to the extent practicable under emergency conditions, an environment in which the current level of health of the evacuees with special needs can be sustained.
Forrest County SO Hattiesburg PD Petal PD	• Provide security and law enforcement for shelters. • Provide alternate communications for shelter operations using port-mobile and vehicle units. • Provide traffic control to and around shelters. • Provide vehicle security in shelter parking lots and staging areas.
Forrest County School District Police Hattiesburg School District Police Petal School District Police	• Assist in providing security for shelters located in District Schools. • Provide traffic control to and around shelters located on school district property. • Provide vehicle security in school shelter parking lots.
Forrest County Road Depart. Hattiesburg Public Works Petal Public Works	• Maintain power, water supplies, and sanitary facilities at shelter sites during an emergency.
Mississippi National Guard	• Assist with security at shelters as needed. • Coordination of shelter usage on military property.* *Note: This should be used only as shelters of last resort.

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

Agency	Functions
Forrest County Amateur Radio Operators	• Provide communications for shelter operators.
Engineering and Code Administration / Forrest County Engineer	• Inspect structural capabilities of buildings designated as shelters.

ESF #6 Review and Maintenance

Southeast Mississippi Chapter, Mississippi Region of the American Red Cross and Salvation Army, in conjunction with Forrest County Human Services, will coordinate an annual review of this ESF #6 annex with all support agencies. Additional review and changes may be made based on implementation experience or because of changes in laws, regulations, etc. Recommendations for changes will be submitted to Forrest County Emergency Management for approval, publication, and distribution.

Appendices

- Appendix 1** Forrest County Shelter List
- Appendix 2** Reception and Care Organizational Structure
- Appendix 3** Mississippi 361 Safe Room Map
- Appendix 4** WebEOC List of Shelters
- Appendix 5** MDHS Regional Map Division of Field Operations
- Appendix 6** American Red Cross, Mississippi Region

**Forrest County Emergency Support Function #6- Mass Care, Emergency
Assistance, Housing, and Human Services Annex**

Appendix 1

List of County Shelters

Facility	Address	City	Facility Point of Contact	Phone	Pre-Incident Capacity (20 sq ft/person)	Post- Incident Capacity (20 sq ft/person)
Forrest County 361 Shelter	946 Sullivan Drive	Hattiesburg	Glen Moore	601.544.5911	344	344

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

Appendix 2

Reception and Care Organizational Structure

I. Purpose

This appendix will establish an organization and procedures to provide for the temporary reception and care of people displaced or evacuated from their residence because of an emergency or disaster situation.

II. Situation and Assumptions

A. Situation

1. Localized temporary evacuation within Forrest County is possible because of the various hazards that could confront the population, thus requiring the implementation of Reception and Care operations and the use of public shelters. These hazards include flooding, hazardous materials incidents, etc.
2. Facilities are available in Forrest County and its municipalities to temporarily shelter and feed those persons evacuated or displaced by an emergency or disaster.
3. Outside assistance is available from both private and governmental sources.

B. Assumptions

1. Affected persons will respond as directed by local government officials.
2. A percentage of the evacuees will stay with friends or relatives.
3. Outside assistance is available from both private and governmental.
4. Assistance by relief agencies along with assistance from outside the county will be available if required and/or requested.

III. Concept of Operations

A. General

1. Local government has the responsibility for providing reception and care services.
2. Reception and Care operations will be directed and controlled by the **(identify your jurisdiction's responsible agency)**. Operations will be

Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

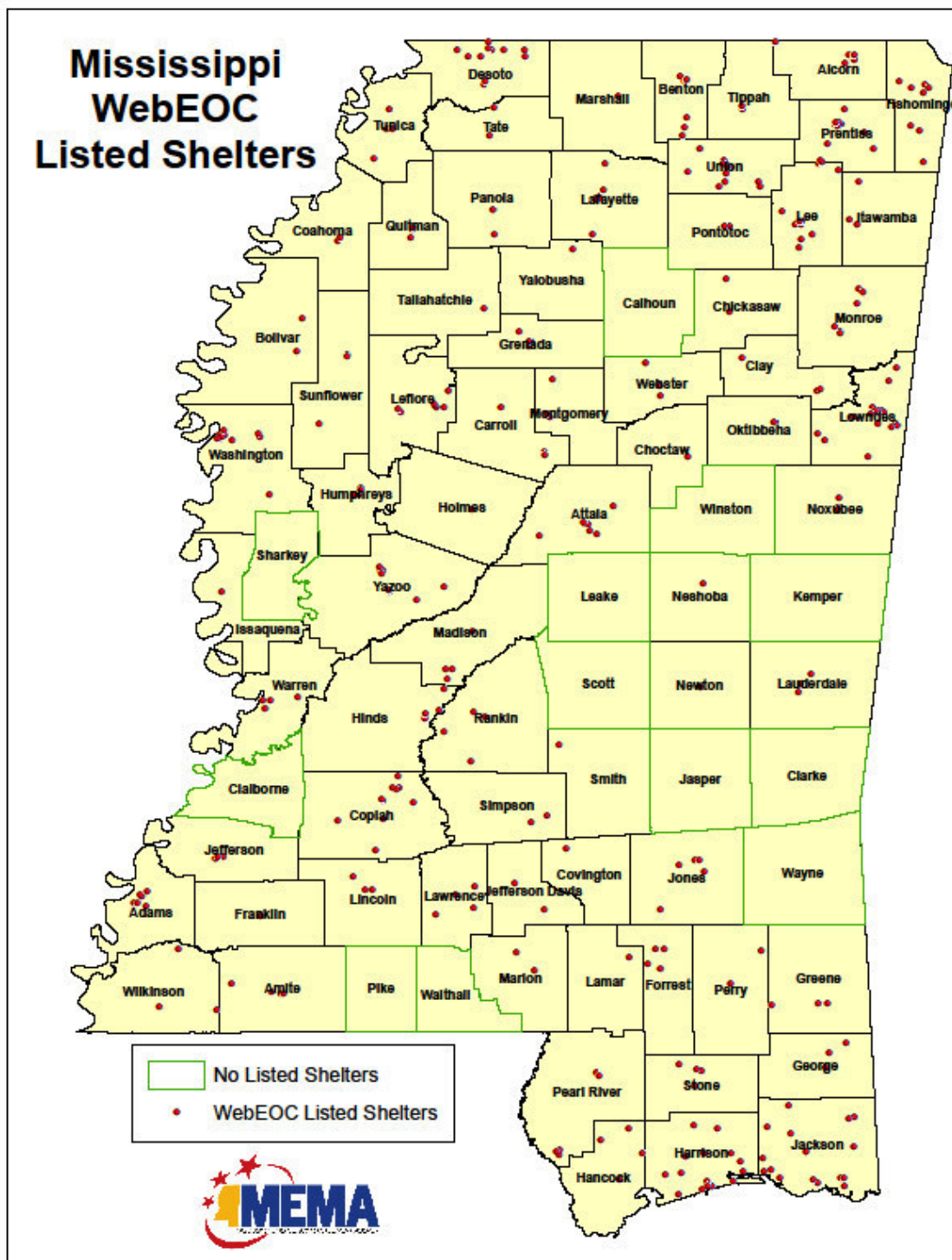
directed and coordinated from the primary EOC or a facility designated at the time reception and care becomes necessary.

3. Support to Reception and Care operations will be provided by other county and/or city departments/agencies as required and private relief organizations as available. Such support would include law enforcement, public information, communication between shelters and the EOC, mass feeding, temporary housing, handlers for pets/service animals, etc.
4. The role of local government will be to:
 - a. Monitor Reception and Care operations and provide coordination.
 - b. Assist in locating and opening shelters.
 - c. Assist in locating animal shelters – preferably in close proximity to mass care shelters.
 - d. Identify shelters and resources that will support access and functional needs support services.
 - e. Resource assistance.
5. The Emergency Management Director will assist the Reception and Care Coordinator in:
 - a. Emergency mass feeding operations.
 - b. Assigning and managing reception and care center teams.

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Appendix 4

WebEOC Listed Shelters

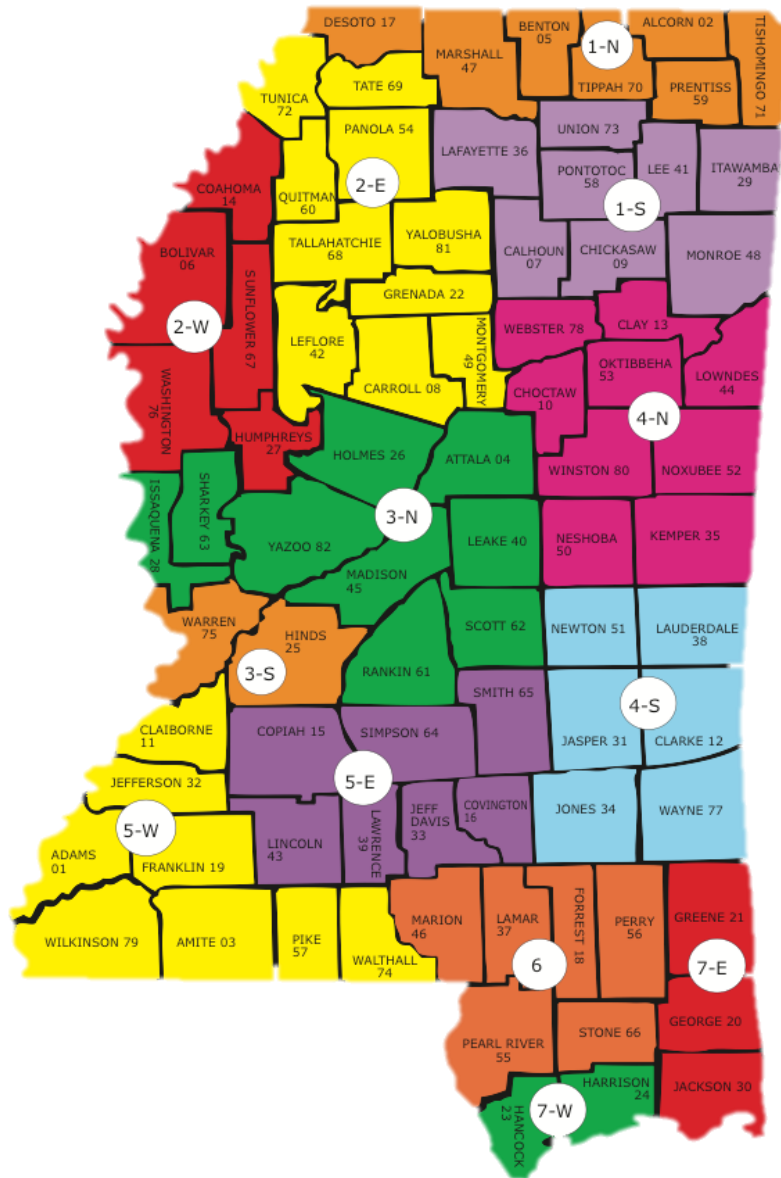


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Appendix 5

MDHS Regional Map – Division of Field Operations

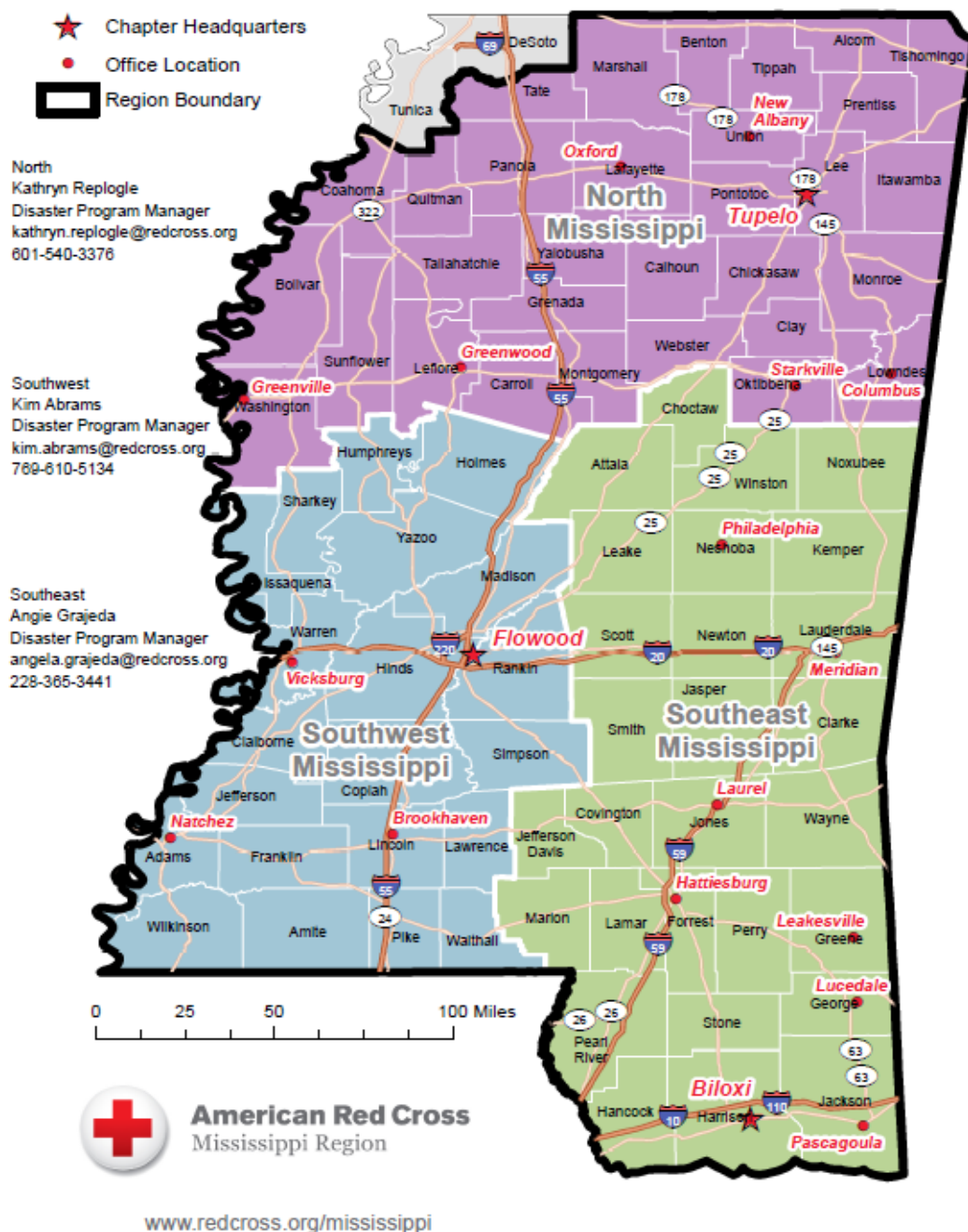
Region	Phone
1 North	(662) 396-2225
1 South	(662) 234-1861
2 East	(662) 326-7912
2 West	(662) 873-2655
3 North	(601) 859-3944
3 South	(601) 364-7474
4 North	(662) 320-9566
4 South	(601) 426-1219
5 East	(601) 782-4075
5 West	(601) 823-4072
6	(601) 554-5852
7 East	(601) 947-7551
7 West	(228) 523-1249



Forrest County Emergency Support Function #6- Mass Care, Emergency Assistance, Housing, and Human Services Annex

Appendix 6

American Red Cross, Mississippi Region



Forrest County Emergency Support Function # 7- Resource Support Annex

ESF # 7 Coordinator

Forrest County Emergency Management
Forrest County Administrator

Primary Agency

Forrest County Emergency Management

Support Agencies

Forrest County
City of Hattiesburg
City of Petal

State Non-governmental Support Organizations

Mississippi Volunteer Organizations Active
in Disasters (MSVOAD)
American Red Cross
Salvation Army

State ESF Coordinator

Mississippi Department of Finance and
Administration (MDFA)

State Primary Agency:

Mississippi Department of Finance and
Administration (MDFA)

Introduction

Purpose

The purpose of Emergency Support Function (ESF) #7 is to provide for proper coordination of resources in order to effectively respond to an emergency.

Scope

Should a disaster overwhelm Forrest County's total resource base, the State ESF # 7 of the State's Comprehensive Emergency Management Plan would be activated with MEMA being the primary coordinator. In the event that Federal ESF # 7 mobilization is required, then the General Services Administration would be the lead agency.

Relationship to Whole Community

This section describes how ESF#7 relates to the whole community.

Local, State, Tribal, and Area Governments

ESF #7 organizations develop collaborative tools for use by local, state, tribal and area governments to elevate current disaster and logistics readiness, identify areas for targeted improvement, and develop a roadmap to mitigate weaknesses and enhance strengths to foster a collective whole community logistics concept.

Private Sector/Nongovernmental Organizations

- Support that cannot be provided from State resources is secured through direct procurement or donations.
- ESF #7 works with retail, wholesale, and other similar private industry associations for information sharing, planning, and exercises that would produce mutually beneficial results in coordinating how, when, and by whom crucial logistics resources will be provided during all types of incidents.

Core Capabilities and Actions

ESF Roles Aligned with Core Capabilities

The following table lists the Response core capabilities that ESF #7 most directly supports along with the related ESF #7 actions. All ESFs, including ESF #7, supports the core capabilities of Planning, Operational Coordination, and Public Information and Warning.

The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.

Core Capability	ESF #7- Logistics
Mass Care Services	- Acquires and manages resources, supplies, and services from core capability providers via contracts, mission assignments, interagency agreements, and donations. - Supports the prioritization, coordination, and communication of mass care resource requirements. - Communicates plans, requirements, and strategies to core capability providers. - Support of requirements for physically accessible sheltering, feeding, and related activities to support survivors of disasters, including individuals with disabilities.
Critical Transportation	- Management of transportation that includes equipment and procedures for moving material from storage facilities and vendors to incident victims, particularly with emphasis on the surge and sustainment portions of response. - Transportation management also includes providing service to include fulfilling request from other State organizations.
Infrastructure Systems	Provision of logistical support to fire and other first response services.
Operational Communications	Coordination of procurement of communication equipment and services.
Public and Private Services and Resources	- Coordination of the resource support for survivors. - Resource management that includes determining requirements, sourcing, ordering and replenishment, storage, and issuing of supplies and equipment. - Facilities management that includes assisting in locating, selecting, and acquisition of incident facilities, such as Joint Field Services Offices (JFO), as well as storage and distribution facilities. - Establishment and operation of logistics support facilities to include the management of services related to lodging and feeding of incident support personnel. - Personal property management to include policy and procedures, guidance for maintaining accountability of material and identification and reutilization of property acquired to support a response operation.

Forrest County Emergency Support Function # 7- Resource Support Annex

	• Management of electronic data interchanges to provide end-to end visibility of response operations. • Plan for transitional support to recovery operations concurrent with response operations.
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Policies

- All local resources will be expended or committed by local government before assistance is requested from other local governments through the Statewide Mutual Aid Compact (SMAC), or from state government agencies.
- According to the Logistics Section of ESF #5, Mississippi Emergency Management Agency (MEMA) is the primary manager of logistical staging sites, and the Mississippi Department of Finance and Administration (DFA) provides assistance in the coordination effort to identify and procure resources and provide logistical support to the affected areas.
- Emergency resources will be used solely for response and short-term recovery, rather than long-term recovery.
- All organizations are responsible for the development and maintenance of their own internal operating and notification procedures. No part of this annex is intended to supplant agency SOP/SOGs.
- All organizations are responsible for filing any important vacancies; recalling personnel from leave, if appropriate; and alerting those who are absent due to other duties or assignments.
- Personnel designated as on-scene responders are representatives of the EOC should make prior arrangements to ensure that their families are provided for in the event of an emergency, so to ensure a prompt, worry-free response and sequent duty.
- The proper channeling of resources is a high priority in an emergency. This ESF outlines procedures for requesting resources during an emergency. Resource inventory will include anticipated needs of local government for all types of emergencies. Local resource requests should come through the local EOC and be coordinated with the Emergency Management Director before state resources capabilities are asked for.

Concept of Operations

Assumptions

- Local resources will be used effectively to minimize duplication and waste.
- All local resources will be expended or committed by Forrest County and local jurisdictions before assistance is requested from other local government or state government agencies.
- Some resources within the disaster area will be damaged, isolated from immediate access, or destroyed.

- The private sector will voluntarily provide personnel, supplies, transportation, and other essential resources during a significant emergency or disaster.

General

It is the responsibility of local government to protect lives and property of its local citizens by utilizing all pertinent government personnel and resources. Among the actions to be taken toward this end are the following:

- Commit all, or that part of, its available resources necessary to protect lives and property and relieve suffering and hardship.
- Local government will maintain a list of available resources to be utilized during an emergency.
- Local government will maintain records of all resources expended, such as manpower, equipment, and materials.
- In the event all local resources have been expended or committed, assistance should be sought from MEMA through the Forrest County Emergency Management Director.
- Logistical support necessary to save lives will receive first priority.

Organization

The day-to-day operations of local Emergency Management provides planning and personnel training to obtain the maximum use of available resources and materials in the event an emergency should arise. During the emergency, local government will coordinate and identify essential resources to be rendered to disaster victims. The aim of the Resource Management ESF is to utilize resources and trained personnel to carry out each assignment effectively among the many resource tasks to be performed during an emergency.

Direction, Control and Coordination

- The Emergency Management office will be responsible for the coordination of resource management activities. The major responsibility is to identify available sources from which needed resources can be obtained during an emergency situation. Coordination of these resources during emergencies will be handled from the EOC. Routine checks of supplies will be made in order to maintain an accurate list.

Administrative and Logistical Support

All participating ESF # 7 agencies are expected to:

- Coordinate their support with ESF # 7.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.

Forrest County Emergency Support Function # 7- Resource Support Annex

- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF # 7 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF # 7 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.
- All ESF # 7 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Communications

- The resource management network of communication is a primary responsibility of the EOC and should be effectively functional during an emergency situation.

Resources

- A listing of all available local stores and suppliers of foods, materials, and equipment is kept on file in the EOC in a resource manual.

Logistics

- Each and every local government agency and other organizations should be prepared to assist in this ESF function when agencies and organizations with primary and supporting roles cannot provide requested resources.

Actions

Preparedness

The ESF # 7 lead for Forrest County should perform the following actions as part of preparedness:

- Develop plans to coordinate and support County resource management processes that implements and controls the effective flow of services and commodities in coordination with ESF # 5.
- Provide a concept of operations for logistics resource management in support of emergency operations.
- Develop initial requirements of commodities and equipment that may be required as part of response capabilities based on hazard analysis, historical data or forecasted intelligence.

- Establish and maintain a list of County resources to include government buildings, vehicles, equipment, supply resources, and agency contacts.
- Recruit, train, and exercise ESF # 7 personnel.
- Pre-identify resource distribution centers.

Pre-Incident

- Ensure SOG's are current and readily available.
- Ensure a coordinated framework is in place for resource management prior to and during a major disaster.
- Ensure all ESF #7 personnel are contacted and reporting times and places are coordinated.

Response

- Distribution and management of resources.
- Coordination of resources to disaster victims.
- Coordinate services with county and local municipalities.
- Make available list of sources to provide materials, equipment, and other resources during emergencies.
- Coordinate local efforts with other agencies.
- Keep records of services and resources rendered during an emergency.

Post-Incident Actions

- Assess needs of victims.
- Estimate costs to provide resources.
- Assess impact of the emergency on the available resources and identifiable needs.
- Coordinate resource management.
- Provide Public information for proper communication to victims.
- Record resources expended and remaining supplies.

Responsibilities

The day-to-day operations of local Emergency Management provides planning and personnel training to obtain the maximum use of available resources and materials in the event an emergency should arise. During the emergency, local government will coordinate and identify essential resources to be rendered to disaster victims. The aim of the Resource Management ESF is to utilize resources and trained personnel to carry out each assignment effectively among the many resource tasks to be performed during an emergency.

Forrest County Emergency Management Agency / Forrest County Administrator

- Identify and maintain list of current available resources.
- Develop mutual-aid agreements for resource allocation with other communities (remember that other counties might also be affected from the disaster, so do not rely on their help alone).
- Coordinate and prioritize resource management.
- Document all expended resources and personnel for possible state or federal reimbursement.

Support Agencies Responsibilities

Agency	Functions
All Support Agencies	• All agencies specifically tasked with ESFs in this CEMP will provide resources and support personnel in delivering emergency response and recovery efforts. Other local agencies not specifically identified in the plan may be tasked with providing their resources or personnel as warranted by the situation. • Each agency should provide Emergency Management with the types of resources they have on hand that would be available for use during emergencies or disasters. • Maintain records of all resources expended for possible reimbursement.

ESF Review and Maintenance

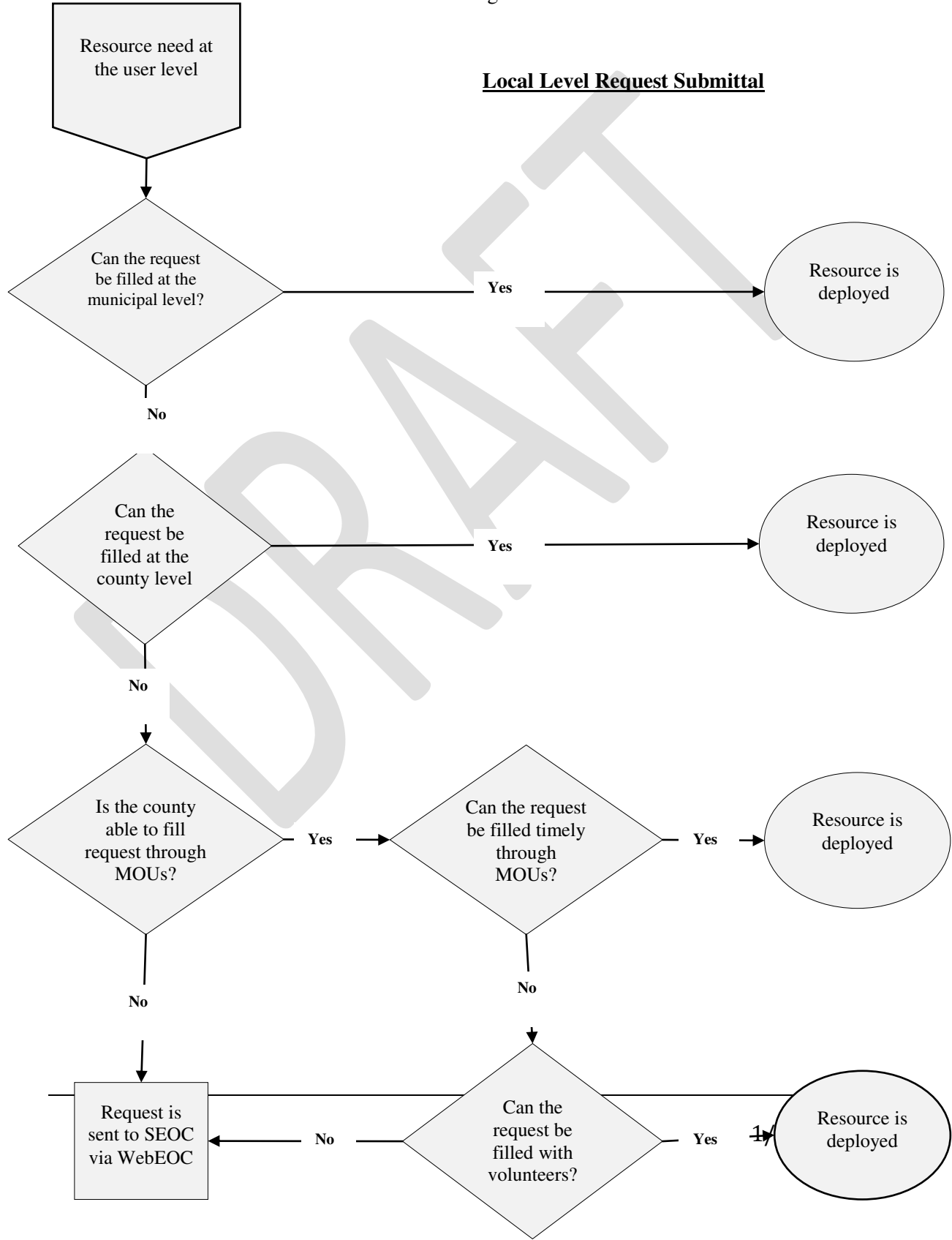
It is the responsibility of the Forrest County Emergency Management to keep an accurate and updated list of all available sources that will supply resources during an emergency. They will also review this ESF annex annually. Other reviews and changes may be made based on incident experience or laws and regulations affecting this ESF. Changes and updates will be distributed to all plan holders.

Appendices

Appendix 1: Resource Management Decision Flow Chart

Appendix 2: References

APPENDIX 1 – Resource Management Decision Flow Chart



Appendix 2: References

State of Mississippi Master Web Site: <http://www.mississippi.gov>

The State Procurement manual link is:

http://www.dfa.state.ms.us/Purchasing/Proc_Man/pro_man.htm

Emergency procedure is in section 3.206. This is the link to get a copy of our special circumstance form (SC1 form).

This is needed, after the emergency, when submitting your request for approval of the emergency purchase

http://www.dfa.state.ms.us/Purchasing/purchasing_forms.htm

This is the link to the State Contracts:

http://www.dfa.state.ms.us/Purchasing/epl_query.htm

This is the link to our state travel contracts (if someone is looking for a hotel):

<http://www.dfa.state.ms.us/Purchasing/Travel.htm>

Link to MS Industries for the Blind

<http://www.msblind.org>

Link to MS Prison Industries

<http://www.mpic.net>

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex

ESF #8 Coordinator

AAA Ambulance Service

Public Health District Eight

Forrest General Hospital

Merit Health Wesley Hospital

***** In a Pandemic Influenza event the Coordinator will be District Medical Liaison Team (See appendix 4 page 16 paragraph 5 *****

Forrest County Primary Agencies

AAA Ambulance Service

Public Health District Eight

Forrest General Hospital

Merit Health Wesley Hospital

Forrest County Support Agencies

Forrest County Coroner

Pine Belt Mental Health

Pine Grove Recovery

Mississippi Department of Mental Health/Region

Forrest County Fire Departments

Public Information Officer (PIO)

Home Health Agencies

Private Health Care Facilities

Forrest County Sheriff's Department

Hattiesburg Police Department

Petal Police Department

Forrest County Board of Supervisors

Forrest County Agent

State ESF Coordinator

Mississippi Department of Health

State Primary Agency

Mississippi State Department of Health

State Support Agencies

Mississippi Department of Human Services

Mississippi Department of Agriculture and Commerce

Mississippi Board of Animal Health

Mississippi Department of Environmental Quality

Mississippi Office of the Medical Examiner

Mississippi Military Department

Mississippi State Board of Pharmacy

Mississippi Department of Rehabilitation Services-Vocational Rehabilitation

Mississippi Veterinary Medical Association

Mississippi Division of Medicaid

Mississippi Board of Medical Licensure

Mississippi Board of Nursing

Mississippi Community Colleges and Subsidiaries

University of Mississippi Medical Center (UMMC) and/or other State Hospitals

Mississippi Department of Public Safety

Introduction

Purpose

The purpose of this Emergency Support Function (ESF) is to provide local assistance and coordinate local resources in response to public health and medical care needs. County agencies and health organizations will provide and coordinate services and resources including, but not limited to, emergency treatment and prevention, inspection of food and potable water, sewage and wastewater disposal, emergency mortuary service, patient rehabilitation, vector and disease control, and the restoration of health and medical infrastructure.

Scope

This section of the plan is to be used to respond to incidents where threatened or actual damage exceeds Forrest County's capabilities.

Relationship to Whole Community

This section describes how ESF #8 relates to the whole community.

Local, State, Tribal, and Area Governments

- While local, tribal and area officials retain primary responsibility for meeting public health and medical needs, ESF #8 can deploy public health and medical assets to assist as needed.
- In a major public health or medical emergency, demand for public health and medical resources may exceed local, state, tribal and area capability. State, territorial, tribal and area jurisdictions may request assistance through the Emergency Management Assistance Compact (EMAC) or may request Federal assistance, which may be executed with or without a Stafford Act declaration. When possible, a recognized spokesperson from the affected public health and medical community (local, state, tribal and area) delivers relevant health messages.

Private Sector/Nongovernmental Organizations

- The vast majority of public health and medical activities and services are provided by the private healthcare sector. ESF #8 augments the support provided by the private healthcare sector when requested by local, tribal and area governments.
- ESF #8 organizations works closely with the private sector (e.g., regulated industries, academic institutions, trade organizations, and advocacy groups), volunteer organizations (e.g., faith-based and neighborhood partnerships), and local and state agencies to coordinate ESF #8 response resources. ESF #8 organizations recognize that leveraging resources from these organizations and individuals with shared interests allows ESF #8 to accomplish its mission in ways that are the least burdensome and most beneficial to the American public and that enhance the resilience of healthcare systems to deliver coordinated and effective care during public health emergencies and mass casualty events.
- Nongovernmental organizations, including community-based organizations, are an important partner in recruiting and supporting health professional volunteers and providing medical and counseling services to victims and their families.

Core Capabilities and Actions

ESF Roles Aligned with Core Capabilities

The following table lists the Response core capabilities that ESF #8 most directly supports along with the related ESF #8 actions. Though not listed in the table, all ESFs, including ESF #8, support the core capabilities of Planning and Operational Coordination. **The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.**

Forrest County Emergency Support Function #8- Public Health and Medical Services
Annex

Core Capabilities	ESF #8- Public Health and Medical Services
Public Information and Warning	• Coordinates the Federal public health and medical messaging with jurisdictional officials. • Continuously acquires and assesses information on the incident. Sources of information may include state incident response authorities; officials of the responsible jurisdiction in charge of the disaster scene; and ESF #8 support departments, agencies, and organizations. • Provides public health, behavioral health, disease, and injury prevention information that can be transmitted to members of the general public and responders who are located in or near affected areas in languages and formats that are understandable to individuals with limited English proficiency and individuals with disabilities and other with access and functional needs. • Supports a Joint Information Center (JIC) in the release of general medical and public health response information to the public.
Critical Transportation	Patient Movement • Transports seriously ill or injured patients and medical needs populations from casualty collection points in the impacted area to designated reception facilities. • Coordinates the Federal response in support of emergency triage and pre-hospital treatment, patient tracking, distribution, and patient return. This effort is coordinated with Federal and local, state; tribal, territorial, and insular area emergency medical services officials. • Provides support for evacuating seriously ill or injured patients through the National Disaster Medical System (NDMS), an interagency partnership between the Department of Health and Human Services (HHS), the Department of Homeland Security (DHS), the Department of Defense (DOD), and the Department of Veterans Affairs (VA), and the Federal Emergency Management Agency (FEMA), via the National Ambulance Contract. Support may include providing transportation assets, operating and staffing NDMS patient collection points (e.g., aerial ports of embarkation (APOEs)), and establishing Federal Coordinating Centers (FCCs) that conduct patient reception at ports of debarkation (e.g., aerial ports of debarkation). Federal support may also include processing and tracking patient movement from collection points to their final destination reception facilities. (Note: DOD is responsible for regulating and tracking patients transported on DOD assets to appropriate treatment facilities (e.g., NDMS hospitals).
Environmental Response/Health and Safety	• Supports the Worker Safety and Health Support Annex, provides technical assistance, and conducts exposure assessments and risk management to control hazards for response workers and the public.
Fatality Management Services	• Assists jurisdictional medico-legal authorities and law enforcement agencies in the tracking and documenting of human remains and

Forrest County Emergency Support Function #8- Public Health and Medical Services
Annex

	associated personal effects; reducing the hazard presented by chemically, biologically, or radiologically contaminated human remains (when indicated and possible); establishing temporary morgue facilities determining the cause and manner of death; collecting ante mortem data in a compassionate and culturally competent fashion from authorized individuals; performing postmortem data collection and documentation; identifying human remains using scientific means (e.g., dental, pathology, anthropology, fingerprints, and, as indicated, DNA samples); and preparing, processing, and returning human remains and personal effects to the authorized person(s) when possible; and providing technical assistance and consultation on fatality management and mortuary affairs. In the event that caskets are displaced, ESF #8 assists in identifying the human remains, recasketing, and reburial in public cemeteries. • May provide support to families of victims during the victim identification mortuary process.
Mass Care Services	• Provides technical expertise and guidance on the public health issues of the medical needs population. • Assists with applications for Federal benefits sponsored by HHS and ensures continuity of assistance services in affected states and in states hosting relocated populations. • Provides support for the provision of case management and advocacy services. • Provides support for human and/or veterinary mass care sheltering as resources are available.
Public and Private Services and Resources	Blood and Tissues • Monitors and ensures the safety, availability, and logistical requirements of blood and tissues. This includes the ability of the existing supply chain resources to meet the manufacturing, testing, storage, and distribution of these products. Food Safety, Security, and Defense • In coordination with ESF #11, may task HHS components and request assistance from other ESF #8 partner organizations to ensure the safety, security, and defense of federally regulated foods. Agriculture Safety and Security • In coordination with ESF #11, may task ESF #8 components to ensure the health, safety, and security of food-producing animals, animal feed, and therapeutics. ESF #8 may also provide veterinary assistance to ESF #11. Support will include the amelioration of zoonotic disease and caring for research animals where ESF #11 does not have the requisite expertise to render appropriate assistance.
Public Health and	Health, Medical, and Veterinary Equipment and Supplies

Forrest County Emergency Support Function #8- Public Health and Medical Services
Annex

Medical Services Public Health and Medical Services (Continued)	• Arranges for the procurement and transportation of equipment, supplies, diagnostic supplies, radiation detecting devices, and countermeasures, including assets from the Strategic National Stockpile (SNS), in support of immediate Public health, medical and veterinary response operations. Health Surveillance • Use existing all-hazards surveillance systems to monitor the health of the general and medical needs population, as well as that of response workers, and identify emerging trends related to the disaster; carries out field studies and investigations; monitors injury and disease patterns and potential disease outbreaks, behavioral health concerns, and blood and tissue supply levels; and provides technical assistance and consultations on disease and injury prevention and precautions. Provides support to laboratory diagnostics. Medical Surge • Provides support for triage, patient treatment, and patient movement. • Provides clinical public health and medical care specialists from the NDMS, U.S. Public Health Service, VA, and DOD to fill local, state, tribal, territorial and insular area health professional needs. • Engages civilian volunteers, through the Emergency System for Advance Registration of Volunteer Health Professionals, volunteer Federal employees and the Medical Reserve Corps to fill local, state, tribal, territorial, and insular area health professional needs. Patient Care • Provides resources to support pre-hospital triage and treatment, inpatient hospital care, outpatient services, behavioral healthcare, medical-needs sheltering, pharmacy services, and dental care to victims or those who suffer from chronic illnesses. • Assists with isolation and quarantine measures and with point of distribution operations (mass prophylaxis and vaccination). • Ensures appropriate patient confidentiality is maintained, including Health Insurance Portability and Accountability Act privacy and security standards, where applicable. Assessment of Public Health/Medical Needs • Supports national or regional teams to assess public health and medical needs. This function includes the assessment of the healthcare system/facility infrastructure. Safety and Security of Drugs, Biologics, and Medical Device
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Forrest County Emergency Support Function #8- Public Health and Medical Services
Annex

Public Health and Medical Services (Continued)	• During response, provides advice to private industry regarding the safety and efficacy of drugs, biologics (including blood, tissues and vaccines), medical devices (including radiation emitting and screening devices), and other products that may have been compromised during an incident and are HHS regulated products. All-Hazard Public Health and Medical Consultation, Technical Assistance, and Support • Assesses public health, medical, and veterinary medical effects resulting from all hazards. Such tasks may include assessing exposures on the general population and on children and those with disabilities and others with access and functional needs; conducting field investigations, including collection and analysis of relevant samples; providing advice on protective actions related to direct human and animal exposures and on indirect exposure through contaminated food, drugs, water supply, and other media; and providing technical assistance and consultation on medical treatment, screening, and decontamination of injured or contaminated individuals. • Provides for disaster related health and behavior health needs through direct services and/or referrals as necessary. Vector Control • Assesses the threat of vector-borne diseases. • Conducts field investigations, including the collection and laboratory analysis of relevant samples; provides vector control equipment and supplies. • Provides technical assistance and consultation on protective actions regarding vector-borne diseases. • Provides technical assistance and consultation on medical treatment of victims of vector-borne diseases. Public Health Aspects of Potable Water/Wastewater and Solid Waste • Assists in assessing potable water, wastewater, solid waste disposal, and other environmental health issues related to public health in establishments holding, preparing, and/or serving food, drugs, or medical devices at retail and medical facilities, as well as examining and responding to public health effects from contaminated water; conducting field investigations, including collection and laboratory analysis of relevant samples; providing equipment and supplies as needed; and providing technical assistance and consultation.
Other (Veterinary Medical Support)	• Provides veterinary public health technical support through HHS National Veterinary Response Teams, veterinary officers of the Commissioned Corps of the U.S. Public Health Service. The

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex

	National Veterinary Response Teams are the primary Federal resource for treatment of ill or injured pets, service animals, working animals, laboratory animals, and livestock. Under its own statutory authority, HHS can manage and conduct animal response to zoonotic diseases in order to protect human health. • For livestock or poultry diseases exotic to the United States that are either not or only mildly zoonotic, supports the United States Department of Agriculture (USDA) and its authority to manage a foreign animal disease response with the resources listed above.
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Policies

All local organizations and other ESFs participating in response operations report public health and medical requirements to their functional counterpart in ESF #8.

General medical and public health response information will be released through ESF #15 after consultation with all health agencies to include AAA Ambulance Service, Forrest General Hospital, Merit Health Wesley, and MSDH District Eight. When possible, a spokesperson from the public health and medical community delivers relevant community messages in conjunction with senior elected officials.

Other general medical and public health response information may be released through ESF #15 at the discretion of the lead Public Information Officer, after consultation with the AAA Ambulance Service, Forrest General Hospital, Merit Health Wesley, and MSDH District Eight. To ensure patient confidentiality, the release of medical information by ESF #8 is in accordance with the Health Insurance Portability and Accountability Act (HIPAA).

Individuals in the county can receive mental health services through the Mississippi Department of Mental Health. In the event of a disaster, MDMH will have the primary role in providing services.

In the event of a zoonotic or animal disease outbreak, in coordination with ESF #11, public information may be released from the Joint Information Center (JIC), after consultation with the Forrest County Extension Agent, in consultation with AAA Ambulance Service, Forrest General Hospital, Merit Health Wesley Hospital, and with the Mississippi Department of Agriculture and Commerce (MDAC) along with the Forrest County Hospital/Health Department.

As the primary agency for ESF #8, the AAA Ambulance Service, Forrest General Hospital, Wesley Medical Center and MSDH District Eight in coordination with the Forrest County PIO or designee determines the appropriateness of all requests for public health, medical, and death information and coordinates with the Forrest County EMA Director.

The AAA Ambulance Service, Forrest General Hospital, Merit Health Wesley Hospital, and MSDH District Eight are the primary agencies for ESF #8, are responsible for consulting with and organizing county public health and medical subject-matter experts, as needed.

Mutual Aid Agreements

- **Statewide Mutual Aid Compact (SMAC)**

If an emergency incapacitates local emergency medical and health and medical services, or if the magnitude of the emergency exceeds local veterinary resources, requests can be made to other participants for resources.

- **Emergency Management Assistance Compact (EMAC)**

If the emergency medical and health and medical service resources overextend the capabilities of the county, a request to Mississippi Emergency Management Agency will be submitted for EMAC stating that persons holding licenses, certificates, or other permits issued by a party State for professional, mechanical, or other skills, shall be deemed licensed, certified, or permitted by the requesting State to render aid involving such skills.

In accordance with Section 33-15-14(2) (a)(viii), MS Code of 1972, annotated, all agencies with Emergency Support Function 8 responsibilities will ensure that they have standard operating procedures in place to enable them to perform appropriate levels of health and medical mitigation, preparedness, response, and recovery.

Concept of Operations

Assumptions

- Medical resources and services may be damaged or unavailable during the disaster or emergency.
- Some disasters may generate casualty loads beyond the treatment capabilities of local emergency medical services and health care systems.
- Damage to chemical and industrial plants, sewer lines, and water systems, combined with secondary hazards such as fires, will result in toxic environmental and public health hazards to the surviving population and response personnel.
- Disruption of sanitation services and facilities, loss of power, and the massing of people in shelters may increase the potential for disease and injuries.
- The damage and destruction of a catastrophic disaster will produce urgent needs for mental health crisis counseling for disaster victims and response personnel.
- In a catastrophic event, the need for emergency mortuary services and victim identification will be paramount.
- Communication systems post-impact will most likely be limited or inoperable.
- Decisions to evacuate and whom to evacuate are local/state decisions.
- Transportation routes will be severely and negatively impacted.

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex

- All patient movements on the ground will be coordinated with general population evacuation processes.
- During a catastrophic event, healthcare facilities may lose significant operational capacity. The facilities may be at or above capacity prior to the event.
- Hospitals and other healthcare facilities may receive a surge in citizens with special medical needs, long-term care patient transfers, and citizens with other medical concerns prior to an event (if there is pre-event notice).
- Hospitals and other healthcare facilities may receive a surge in citizens who have medical injuries, who are experiencing exacerbation of medical conditions, or who have other medical concerns post-impact.
- During events that provide no-notice, all pre-impact actions (i.e. warnings or evacuations), will begin immediately post-impact.
- A major disaster could have detrimental effects on the animal population. This in turn could seriously harm the environment and the economy.

General

- ESF #8, which consists of all Forrest County Emergency Medical Services (EMS) will manage and coordinate most Health and Medical resources from the Forrest County Emergency Operations Center (EOC) when activated. The EOC is located at 4080 Hwy 11 Hattiesburg, MS 39442.
- A vast majority of ESF #8 activities will take place out in field locations at the disaster site. Any deployed field personnel or units will report to the EOC ESF #8 and will stay in contact with them at all time by either radio or telephone.
- The lead EMS agency for this ESF is the primary agencies listed above. Each agency has an internal set of guidelines for disaster response. That policy will act as a supplement to this ESF.
- All other agencies with ESF #8 responsibilities will ensure that they have Standard Operating Procedures (SOPs) in place to enable them to perform appropriate levels of health and medical mitigation, preparedness, response, and recovery.

Alert, Notification, and Warning

Upon notification by Emergency Management of a potential or actual event requiring response, all designated ESF #8 Emergency Coordinating Officers (ECOs) will report to the Forrest County EOC. Direct coordination of health and medical activities will take place at this location. Each agency and organization must ensure that sufficient program staff is supplied to carry out the activities of this function on a continuous basis.

Response Operations

- Forrest General Hospital, Merit Health Wesley, and MSDH District Eight are responsible for assuring essential acute medical care.
- Forrest General Hospital, Merit Health Wesley, and MSDH District Eight are responsible for the coordination of health and medical services to evacuated citizens in shelters, affected functional needs populations, and home health care patients.
- Forrest General Hospital, Merit Health Wesley, and MSDH District Eight in conjunction with the Forrest County Health Department, will organize medical support to re-entry control points including any special immunization/protective requirements.
- Requests for additional EMS services will be coordinated to the State Department of Health by AAA Ambulance Service and Forrest County EOC personnel.

Animal Health

- Following an emergency or disaster situation, it may be necessary to protect the health, safety, and welfare of animals. This may include controlling the spread of disease from animals to human beings and other animals and providing animal care services to injured animals.
- Veterinarians residing in Forrest County are the first line for response to emergencies involving animals or animal food products in their communities.
- The Mississippi Veterinary Medical Association (MVMA) is the primary organization for coordinating voluntary veterinary services needed in emergencies. The MVMA represents veterinarians of the State and acts as liaison with local and state agencies. Veterinarians and humane society personnel are only required to participate on a voluntary basis in emergency operations.

Organization

Forrest General Hospital

- Assign a medical liaison/coordinator to the county EOC and coordinate Forrest County medical services at this location with various other departments represented there and in the fields.
- Respond in a timely manner with enough personnel and enough medical supplies and equipment to handle the incident.
- If necessary, invoke mutual aid agreement with other ambulance carriers.

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex

- Transport casualties to the appropriate medical facility as determined in consultation with the medical facility.
- Perform on-scene triage, especially in the case of mass casualty situations.
- Upon arrival at the scene of a “safe area” establish medical control through the Radio Communications System with hospitals and obtain treatment orders through radio contact with on duty emergency physicians or follow established protocols.
- Maintain full inventory of emergency medical supplies.
- Inform the EOC of the Public Health conditions.
- Conduct environmental health activities in regard to sewage or solid waste refuse disposal, food, water control, and vector/vermin control.
- Provide essential/ongoing Public Health Clinic services.
- Issue health instructions to the general public, including personal health and hygiene (This activity needs to be coordinated with Forrest County Public Information ESF #15 and the State Department of Health’s Office of Health Communication and Public Relations).

Forrest County EMA

- Forrest County Emergency Management personnel will notify EMS Officials and other support agencies of ESF #8 activation.
- Ensure required medical media releases are coordinated with senior elected officials and the County EOC.

Field Units

AAA Ambulance Service

- AAA Ambulance Service has the lead coordination responsibilities for this ESF. They are responsible for coordinating the overall health and medical activities by providing resources or personnel based upon jurisdictional needs. They will be responsible for coordinating obligations on all Health and Medical ventures that involve local resources and assistance.
- The Emergency Coordinating Officer (ECO) will perform the necessary tasks of addressing emergency health needs through direct involvement with Forrest County Emergency Management, during the time of a disaster.
- If the local emergency health and medical resources have either been exhausted or are expected to be exhausted prior to meeting the demand. AAA Ambulance Service will coordinate with Emergency Management officials to recommend the assistance be requested from MEMA. Such a request to MEMA for assistance would prompt the implementation of the Mississippi Comprehensive Emergency Management Plan (CEMP).

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex

Administrative and Logistical Support

All participating ESF # 8 agencies are expected to:

- Coordinate their support with ESF # 8.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF # 8 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF # 8 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.
- All ESF # 8 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

- Recruit, train and exercise ESF #8 personnel.

Pre-Incident

- Ensure current SOPs are available.
- Ensure all necessary personnel are contacted. Notify and requests all support organizations to participate in ESF #8 coordination activities. As appropriate, supporting agencies and organizations not already represented at the Forrest County EOC are requested to provide liaisons to ESF #8.
- Coordinate with county health officials, Coroner's Offices, and other organizations to determine current medical and public health assistance requirements.

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex

- Commence various forms of communication with health and medical representatives from Forrest County and Mississippi State Department of Health to discuss the situation and determine the appropriate response actions.
- Enhance staffing immediately on notification of an actual or potential public health or medical emergency.
- Consult with the appropriate ESF #8 organizations to determine the need for assistance.

Incident

- Develop and update assessments of medical and public health status.
- Establish communications necessary to coordinate local public health and medical assistance effectively.
- Coordinate ESF #8 activities.
- Coordinate medical transportation assistance.
- Coordinate health and medical services to evacuated citizens provided shelter, affected special needs populations, and home health care patients.

Recovery

- Restore all essential healthcare, medical, and social services systems.
- Restore permanent medical facilities to operational status.
- Restore pharmacy services to operational status.
- Support emergency services staff and operations until they can be redrawn.
- Continue provision of mental health crisis services.
- Continue environmental and epidemiological surveillance.

Post-Incident

Forrest County prepares an after-action report. The after-action report identifies key problems, indicates how they are to be/were solved, and makes recommendations for improving response operations. ESF #8 organizations assist in preparation of the after-action report.

Responsibilities

AAA Ambulance Service (EMTs/EMRs)/Forrest County Health Department

- Assign a medical liaison/coordinator to the county EOC and coordinate Forrest County medical services at this location with various other departments represented there and in the fields.

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex

- Respond in a timely manner with enough personnel and enough medical supplies and equipment to handle the incident.
- If necessary, invoke mutual aid agreements with other ambulance carriers.
- Transport casualties to the appropriate medical facility as determined in consultation with the medical facility.
- Perform on-scene triage, especially in the case of mass casualty situations with assigned staff.
- Upon arrival at the scene of a “safe area” establish medical control through the Radio Communications System with hospitals and obtain treatment orders through radio contact with on duty emergency physicians or follow established protocols.
- Maintain full inventory of emergency medical supplies.
- Forrest County Health Department will assign a medical liaison/coordinator to the county EOC and coordinate Forrest County medical services at this location with various other departments represented there and in the fields.
- Forrest County Health Department will respond in a timely manner with enough personnel and enough medical supplies and equipment to handle the incident.

Support Agencies Responsibilities

Agency	Functions
Forrest County Coroner	• Proper identification of disaster victims. • Note and retrieve personal items on victims. • Coordinate with funeral homes and ambulances for removal of bodies. • Responsible for procuring body bags.
Mississippi Department of Mental Health/Region	• Formulate critical incident stress debriefing program for emergency response personnel. • Provide crisis-counseling program for disaster victims. • Arrange to dispatch mental health resources to affected areas.
County/Local Fire Departments	• Assist with traffic control and/or crowd control. • Provide first aid assistance as needed.
Mississippi Veterinary Medical Association	• Activate their animal disaster plan printed under separate cover. • Coordinate veterinary services and animal care with EOC and Forrest County veterinarians. • Coordinate volunteer veterinarians and humane society personnel in emergency.

Forrest County Emergency Support Function #8- Public Health and Medical Services
Annex

Agency	Functions
Public Information Officer (PIO) (appointed)	• Members of the press should be made welcome at the county level and internally at the hospital, and as much information given them as is legally available. • Ensure accurate dissemination of information to media for news releases. • Set up area for media within county to function as JIC.
Home Health Agencies	• Provide support with staff and equipment as needed. • If resources are available, the EOC will designate special needs shelters. These shelters are to be used primarily by homebound or invalid patients who are evacuated.
Private Health Care Facilities	• Follow Standard Operating Procedures (SOPs).

ESF Review and Maintenance

- Forrest County Emergency Management will coordinate the annual revision of this ESF with all support agencies. Other unscheduled reviews and revisions may be made after implementation of the plan or because of changes in laws or regulations. Recommendations for changes will be submitted to Emergency Management for approval, publication, and distribution.

Appendices

Appendix 1 – Mississippi State Department of Health Public Health Districts Map

Appendix 2 – Mississippi State Department of Mental Health Regional Offices Map

Appendix 3 – Medical Resources and Contact List

Appendix 4 – State Operated Psychiatric Facilities

Appendix 5 – State Facilities for persons with mental retardation/developmental disabilities

Appendix 1

Mississippi State Department of Health Public Health Districts Map

PUBLIC HEALTH DISTRICTS

Northwest Public Health District I

Northeast Public Health District II

Delta/Hills Public Health District III

Tombigbee Public Health District IV

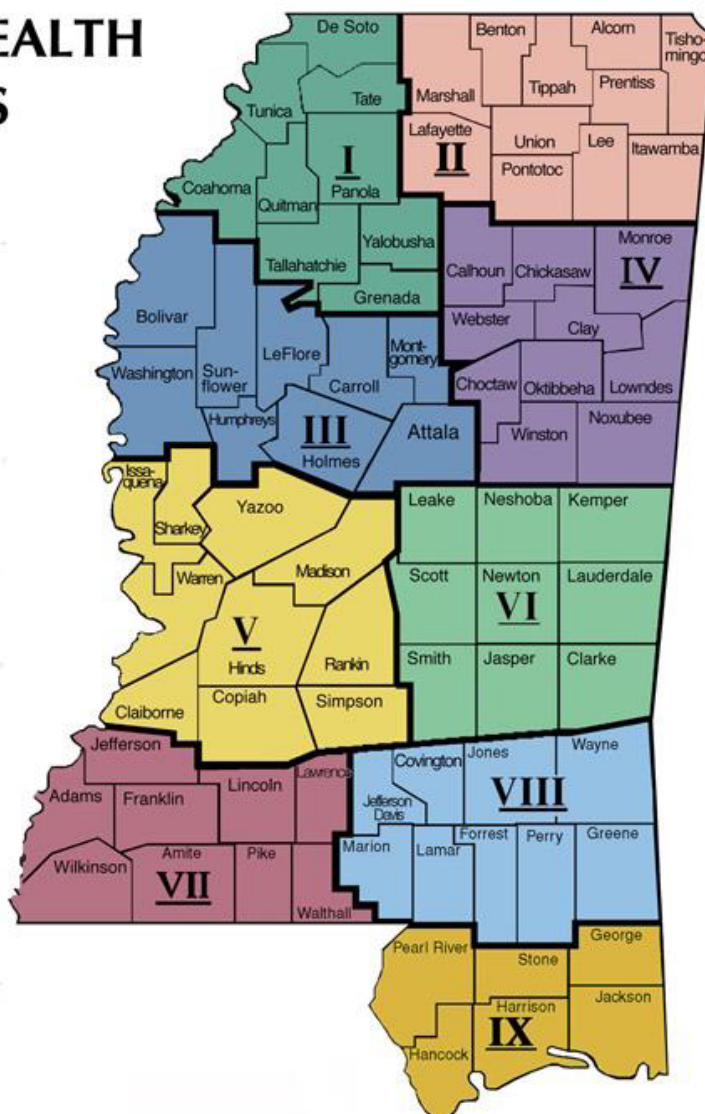
West Central Public Health District V

East Central Public Health District VI

Southwest Public Health District VII

Southeast Public Health District VIII

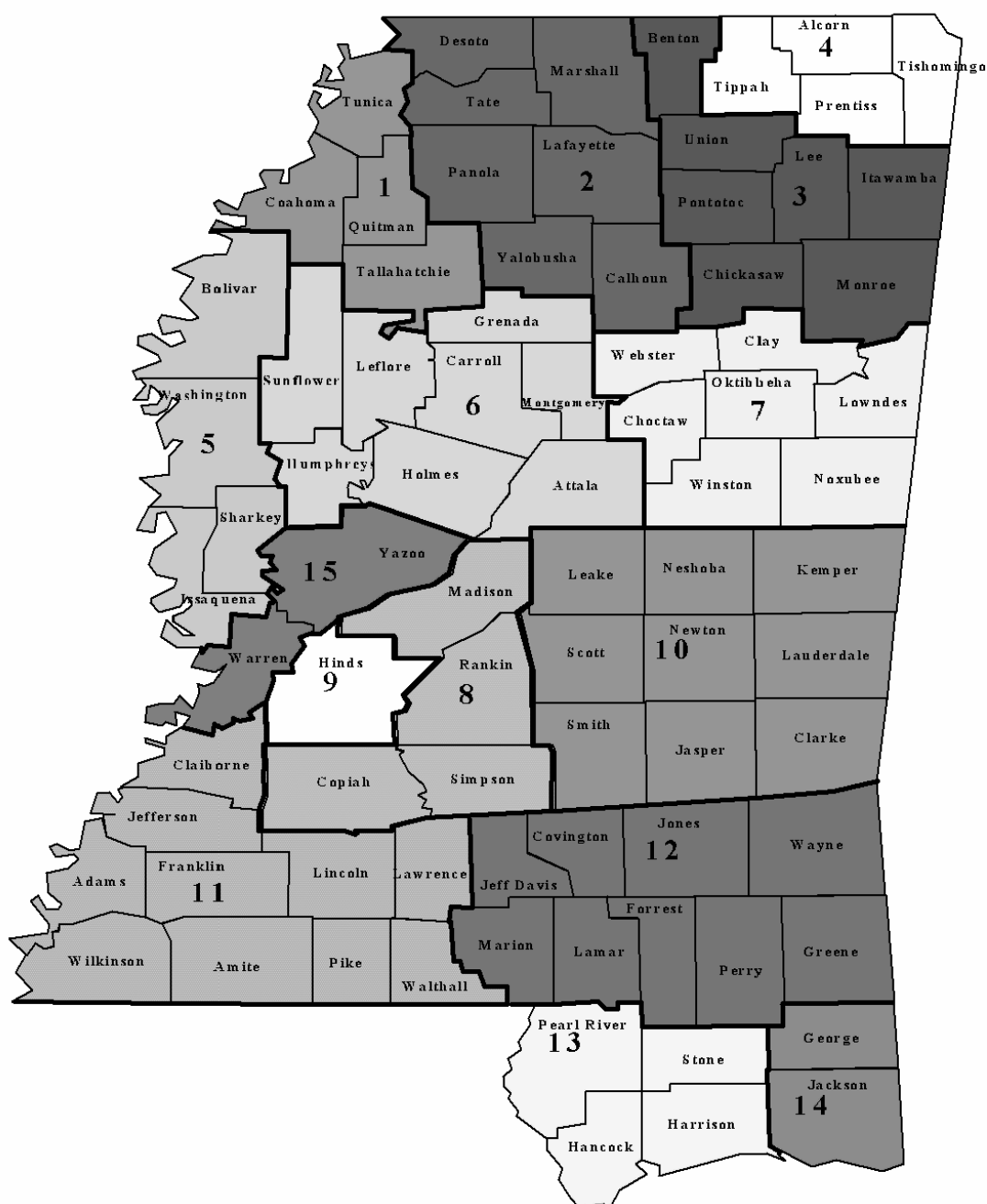
Coastal Plains Public Health District IX



Appendix 2

Mississippi State Department of Mental Health Regional Offices Map

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex



Appendix 3

Medical Resources and Contact List

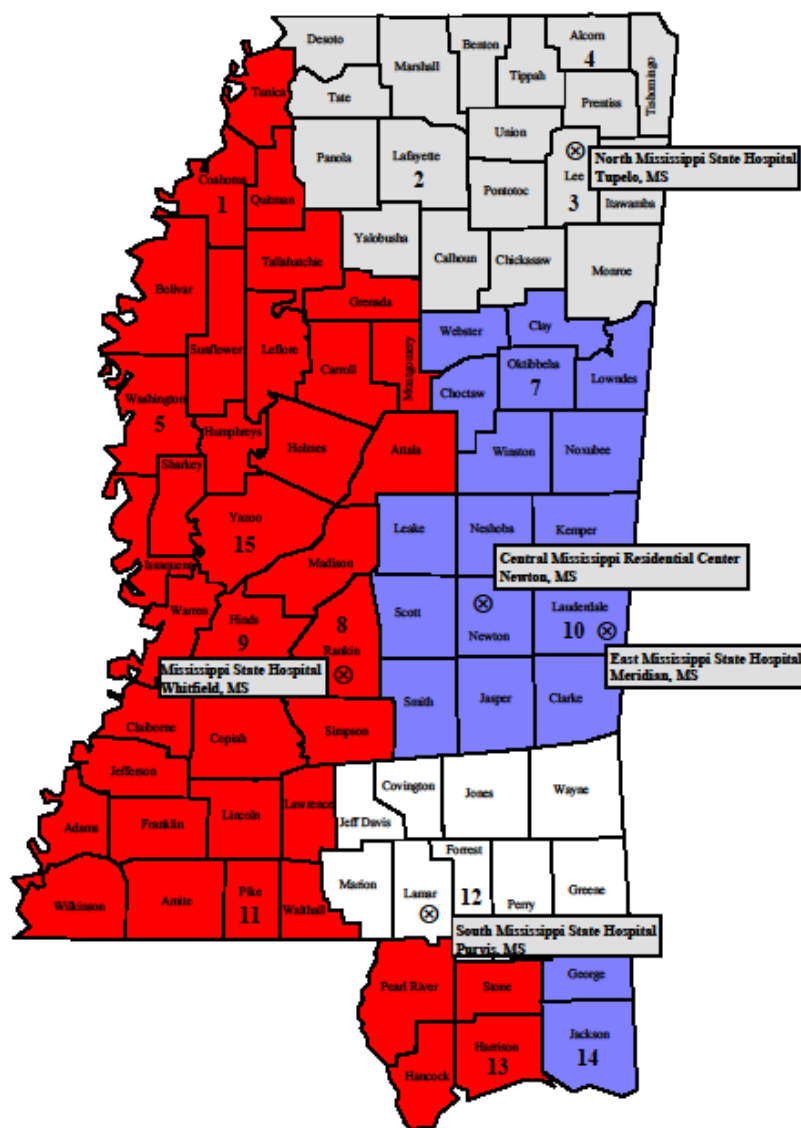
Forrest County Emergency Support Function #8- Public Health and Medical Services
Annex

Forrest County Medical Facilities				
Hospitals				
Name of Facility	Contact	Number	Address	email
Forrest Gen. Hosp	Wayne Landers	601-288-1010	6051 Hwy 49, P.O. Box 16389	WLanders@forrestgeneral.com
Regency Hospital	Kimberly Bradley	601-288-8559	6051 US Hwy 49 S. 5th Floor	KSBradley@regencyhospital.com
Long Term Care				
Bedford - Alzheimer's	Pamela Kelly	601-544-5300	300-B Cahal Street Hattiesburg, MS 39401	pkelly@bedfordcc.com
Bedford -Hattiesburg	Carl Young Kelly Buxton	601-264-3709	10 Medical Blvd Hattiesburg, MS 39401	cyoung@bedfordcc.com kbuxton@bedfordcc.com
Bedford - Monroe Hall	Robert Perry	601-582-9157	300 Cahal St. Hattiesburg, MS 39401	rperry@bedfordcc.com
Bedford -Petal	Linda Woodall	601-544-7441	900 S. George St. Petal, MS 39465	lcwoodall@bedfordcc.com
H'burg Health & Rehab	Cherry Jones	601-544-4230	514 Bay St Hattiesburg, MS 39401	cjonesadmin@megagate.com
Home Health				
Camellia Home Health	Kathy Barrentine	601-268-0408	133 Mayfair Rd/P.O. Box 1956	kathyb@camelliahealth.com
Forrest General H H	Steve Eick Barbara White	601-288-2500	1414 S. 28th Ave. Hattiesburg, MS 39402	seick@forrestgeneral.com bwhite@forrestgeneral.com
MS Home Care - H'burg	Marsha Smith	601-296-7653	710 S. 28th Ave. Ste A Hattiesburg, MS 39402	marsha.smith@lhgroup.com
Hospice				
Camellia Hospice	Kathy Barrentine	601-268-0408	133 Mayfair Rd/P.O. Box 1956	kathyb@camelliahealth.com
Compassus	Gerry Richards	601-705-0360	811 Rebecca Ave. Hattiesburg, MS 39401	gerry.richards@compassus.com
Deaconess Hospice	Deborah Johnson	601-268-1842	710 S. 28th Ave. Hattiesburg, MS 39402	deborah.johnson@lhgroup.com
Forrest Gen. HH/Hos	Steve Eick Barbara White	601-288-2500	1414 S. 28th Ave. Hattiesburg, MS 39402	seick@forrestgeneral.com bwhite@forrestgeneral.com
Halcyon Hospice	Donna Freeman	601-336-5832	710 S. 28th Ave. Ste C Hattiesburg, MS 39402	
Home Care Hospice So	Angela Davis	601-909-6105	100 Walnut Circle Ste 110 Hattiesburg, MS 39401	adavis@hchospice.com
Southern Care Hospice	Connie Williamson	601-579-9493	4700 Hardy St. Ste Y Hattiesburg, MS 39402	connie.williamson@southerncare.com
St Joseph's Hospice	Mark Crowson	601-261-2515	105 Asbury Cr Ste C Condo 1	mcrowson@stjosephhospice.com
Personal Care/Assisted Living Facilities				
Alden Point	Kathy McPhail	601-296-9711	2 Courtland Dr Hattiesburg, MS 39401	kmcpfail@aol.com
Brookdale Hattiesburg One	Michele Archer	601-271-2177	103 Fox Chase Hattiesburg, MS 39401	michele.archer@brookdale.com
Brookdale Hattiesburg Two	Roberta Gill	601-271-8480	107 Fox Chase Hattiesburg, MS 39401	roberta.gill@brookdale.com
Country Comfort	JoAnne Rushing	601-545-7603	330 Pop Runnels Rd Petal, MS 39465	dogerushing@bellsouth.net
Friends PCH	Barbara Friend	601-545-9545	367 Corinth Church Rd. Petal, MS 39465	barbarafriend2003@yahoo.com
The Claiborne Asst. Living	Victor Robinson	601-909-2385	200 Whispering Pines Hattiesburg, MS 39401	victor.robinson@theclaiborne.com
Outpatient				
Hattiesburg Clinic Amb Surg Center	Terrie Dean	601-579-5075	415 S. 28th Ave. Hattiesburg, MS 39401	terrie.dean@hattiesburgclinic.com
Lowery A Woodall Outpatient Surgery	Karen Smith	601-579-3400	105 S. 28th Ave. Hattiesburg, MS 39401	
Southern Eye Physicians Ctr	June Rogers	601-705-0078	1420 S. 28th Ave. Hattiesburg, MS 39401	
Pedia Trust, LLC	LeAnn Craig		401 S. 40th St. Hattiesburg, MS 39402	

Appendix 4

State Operated Psychiatric Facilities

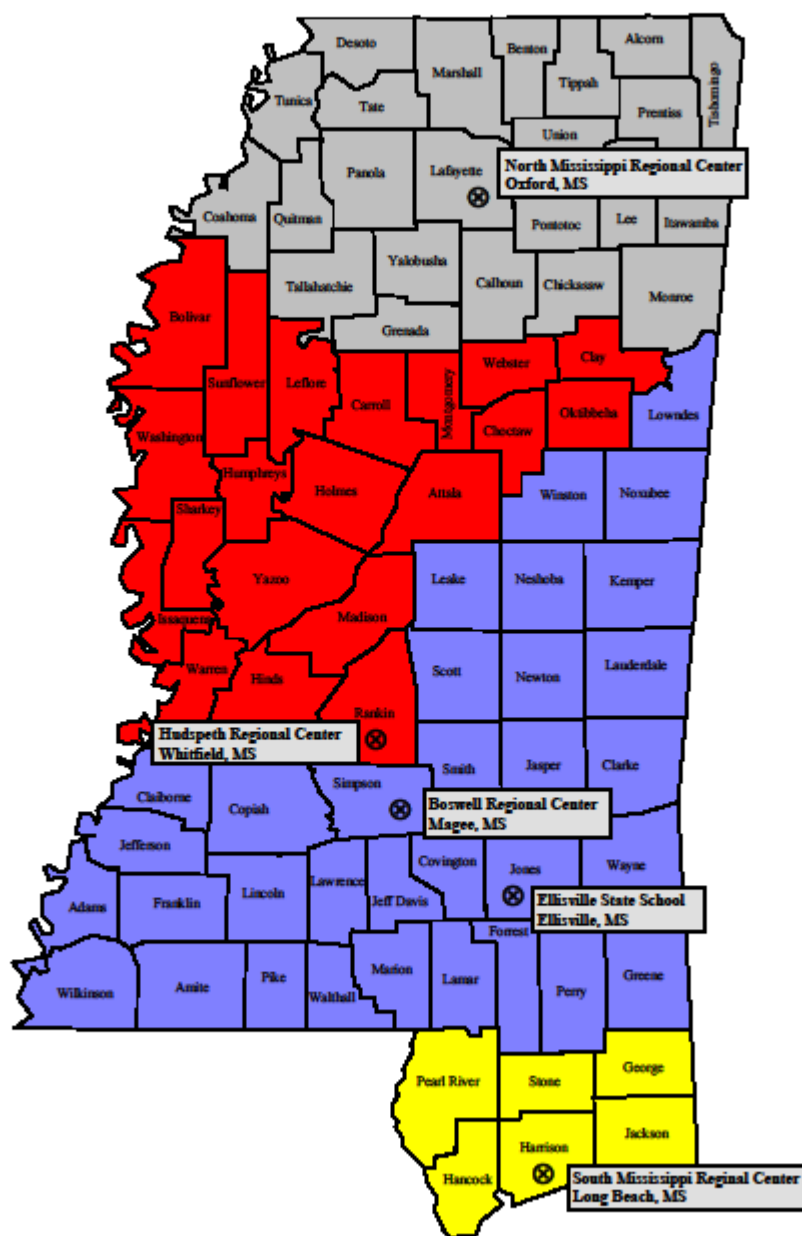
Forrest County Emergency Support Function #8- Public Health and Medical Services Annex



Appendix 5

State Facilities for persons with mental retardation/developmental disabilities

Forrest County Emergency Support Function #8- Public Health and Medical Services Annex



Forrest County Emergency Support Function #9 – Search and Rescue Annex

ESF #9 Coordinator

Forrest County Sheriff's Department

Forrest County Primary Agencies

Forrest County Sheriff's Department
Hattiesburg & Petal Police Department
Forrest County Fire Services
Hattiesburg & Petal Fire Services
Forrest County Emergency Management

Forrest County Support Agencies

AAA Ambulance Services
AAA Rescue 7 Air Ambulance
Civil Air Patrol
Local Ground/Air Emergency
Transportation Service

State ESF Coordinator

Mississippi Department of Public
Safety/Mississippi Highway Safety
Patrol Division

State Primary Agencies

Mississippi Emergency Management
Agency (MEMA)
Mississippi Military Department (MMD)
Mississippi Forestry Commission
Mississippi Department of Insurance
Mississippi Department of Wildlife,
Fisheries and Parks

State Support Agencies

Mississippi Emergency Management
Agency (MEMA)
Civil Air Patrol
Mississippi Department of Corrections
Mississippi Bureau of Narcotics
State Fire Academy
Mississippi Office of Homeland Security

Introduction

Purpose

The purpose of this Emergency Support Function (ESF) is to frame organizational responsibilities and concepts for conducting search and rescue (SAR) operations. The key to any SAR effort is timely response, organization, flexibility, and cooperation among the various agencies involved. It also carries the role and responsibilities of local agencies in coordinating personnel, equipment, and other resources to assist in their search and rescue efforts.

Scope

- If an emergency or major disaster occurs that overwhelms local resources, ESF #9 of the Mississippi Comprehensive Emergency Management Plan (CEMP) will be activated to provide assistance in accordance with the Emergency Management Law, MS Code Ann. § 33-15 (1972). Additional support, as needed, will be obtained through the Statewide Mutual Aid Compact (SMAC) or the Emergency Management Assistance Compact (EMAC). In extreme events, the state may request the activation of one or more federal assets for missions within Mississippi.
- Urban Search and Rescue (USAR) includes, but is not limited to locating, extracting, and providing immediate emergency medical assistance to victims trapped in a collapsed structure. USAR is a highly technical field, requiring specialized equipment and training to such a degree that an event requiring USAR will almost automatically exceed local response capabilities and trigger deployment of one or more of Mississippi's Statewide Technical Advance Rescue (STAR) Teams and/or federal assistance.

Forrest County Emergency Support Function #9 – Search and Rescue Annex

- Overland Search and Rescue (OSAR) may consist of a vacant structure, non-urban, and wilderness search and rescue activities which include, but not limited to emergency incidents that involve locating downed aircraft and missing persons, extraction, and treating any victim upon rescue. The vast majority of these incidents are handled by local resources without the need for state assistance.
- Waterborne Search and Rescue consist of searching navigable water ways, lakes, and swamps for overdue boats, ships, personal water craft, swimmers, kayakers, etc. Waterborne Search and Rescue are primarily conducted by water craft and aircraft.
- Aeronautical Search and Rescue consists of searches of non-urban and wilderness areas that involve locating downed aircraft, extraction, and treatment of victims. Searches are conducted with ground and air assets with alerts and data provided by the Air Force Rescue & Coordination Center and the Federal Aviation Administration (FAA).
- Swift-water Rescue is a technical rescue specialty that consists of rescuing stranded and/or trapped victims from water that is moving at speeds in excess of 1.5 kts. Swift-water operations can be conducted from the ground, with boats, and/or aerial assets. Mississippi STAR Teams are trained and equipped to conduct swift-water rescue.

Relationship to Whole Community

This section describes how ESF #9 relates to other elements of the whole community.

Local, State, Tribal Territorial, and Area Governments

- Local, state, tribal, and area government is responsible for SAR within their respective jurisdictions and typically designates a SAR coordinator to provide integration and coordination of all SAR services.
- If an affected local, state, tribal, or area government publishes guidance or a plan for conducting unified SAR operations, that guidance or plan takes precedence.
- County-to-County SAR assistance is requested by the affected county through the State Mutual Aid Compact (SMAC). Non-County SAR resources are, as appropriate, incorporated into any coordinated SAR operations.

Core Capabilities and Actions

ESF Roles Aligned to Core Capabilities

The following table lists the Response core capability that ESF #9 most directly supports along with the related ESF #9 actions. Though not listed in the table, all ESF's, including ESF #9, support the core capabilities of Planning, Operational Coordination and Public Information and Warning.

Forrest County Emergency Support Function #9 – Search and Rescue Annex

The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.

Core Capabilities	ESF #9- Search and Rescue
Mass Search and Rescue Operations	• ESF #9 is activated when an incident is anticipated or occurs that may result in a request for a unified SAR response to an affected area. • Federal SAR responders assist and support local, state, tribal, territorial, and insular area SAR capabilities in incidents requiring a coordinated Federal response. No provision of this annex is to be construed as an obstruction to prompt and effective action by any agency to assist persons in distress. • The ESF #9 response is scalable to meet the specific needs of each incident, based upon the nature and magnitude of the event, the suddenness of onset, and the capability of local SAR resources. Response resources are drawn from ESF #9 primary and support agencies. • ESF #9 SAR operations are conducted following the National Response Framework (NRF) and National Search and Rescue Plan (NSP), U.S. National SAR Supplement (NSS), Catastrophic Incident SAR (CISAR) Addendum, and other addenda that define SAR responsibilities and provide guidance to the Federal departments and agencies with civil SAR mandates. ○ National Search and Rescue Plan (NSP): The NSP is the policy guidance of the signatory Federal departments and agencies for coordinating SAR services to meet domestic needs and international commitments. ○ National SAR Supplement (NSS): This document provides implementation guidance on the International Aeronautical and Maritime Search and Rescue Manual and the NSP. ○ Catastrophic Incident SAR (CISAR) Addendum to the NSS: This document provides a description of the unified SAR response to catastrophic incidents, guides Federal authorities involved in the response, and informs local, state, tribal, territorial, and insular area authorities on what to expect of/from Federal SAR responders. • ESF #9 may operate under the Economy Act¹ when there is no Stafford Act declaration. • For every incident, the ESF #9 coordinator assesses the specific SAR requirements and assigns one of the four primary agencies as the overall primary agency for SAR for that particular incident. Designation is dependent upon incident circumstances and the type of response required. • When assigned as the overall primary agency for a particular incident, that organization conducts the following actions: ○ Coordinates planning and operations between primary and support agencies. ○ Coordinates resolution of conflicting operational demands

Forrest County Emergency Support Function #9 – Search and Rescue Annex

	- for SAR response resources. ○ Provides representation to appropriate incident facilities (i.e., National Response Coordination Center [NRCC], Regional Response Coordination Center, Joint Field Office [JFO], emergency operations centers [EOCs]). • All ESF #9 primary agencies provide support to the designated overall primary agency as required.
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Policies

- If SAR operations overextend the resources and capabilities of the state, then search and rescue resources from other states may be requested through the Emergency Management Assistance Compact (EMAC). All requests for EMAC assistance will be processed and tracked through the Mississippi Emergency Management Agency (MEMA). Any SAR assets brought into Mississippi under an EMAC shall fall under the operational control of the Mississippi ESF #9 to augment state SAR assets.
- SAR planning and operations will be consistent with the Incident Action Plan (IAP) established by the IC.
- All agencies will operate within the identified ICS structure established by the local IC and/or the SAR Leader. Each supporting agency will maintain administrative command and control of their own resources and any others assigned to them.
- The local Incident Commander (IC) will maintain overall command and control of the incident within their respective jurisdiction(s). Any state or federal SAR assets activated to assist will be under the operational control of the Mississippi STAR Team Lead who is the designated SAR Leader for the deployed assets in the jurisdiction(s) for the mission assignment to the local IC or his designee. As the lead state coordinators responsible for search and rescue, MFCA and MEMA will establish a SAR Leader and Group Supervisors as needed dependent upon the mission assigned. These personnel will operate within the Operations Section of the recognized and established Incident Command System (ICS) within the jurisdiction of operation. All state and federal SAR agencies will operate under the operational control of the ESF #9 coordinators appointed by the MFCA & MEMA, unless a delegation of authority is given during an incident.
- The search for, and recovery of, human bodies will be conducted only after the rescue of survivors has been completed and the environment will allow for safe operation by SAR personnel.
- The National Incident Management System principles, in conjunction with the Incident Command System principles are the on-scene methods for SAR operations in the county. Request for additional resources including special skills, expertise, or equipment are coordinated through the 911 Dispatch Center, or in large operations, by the Emergency Operations Center (EOC), when activated.

Forrest County Emergency Support Function #9 – Search and Rescue Annex

Mutual Aid

Statewide Mutual Aid Compact (SMAC): If the county SAR operations overextend the resources and capabilities, a request can be made to participant counties for personnel, search and rescue dogs/teams, equipment, etc.

Emergency Management Assistance Compact (EMAC): If the SAR operations overextend the resources and capabilities of the county, a request to Mississippi Emergency Management Agency will be submitted for search and rescue resources from States participating in the EMAC.

Concept of Operations

Assumptions

- The state SAR Response System assists and augments county and municipal search and rescue capabilities. Statewide Mutual Aid Compact (SMAC) may be utilized if SAR operations overextend the resources and capabilities of local government officials. Requests can be made to participant counties for personnel, search and rescue dogs/teams, equipment etc. Requests for assistance from one of Mississippi's STAR Teams (MS START) must be made through the State Emergency Operations Center (SEOC).
- At no time will Forrest County local assets be considered state or federal assets. Under the National Response Framework (NRF), federal USAR task forces are federal assets in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act and other applicable authorities. Federal SAR assets deployed within Mississippi shall fall under the operational control of Mississippi ESF #9 to augment state SAR assets.
- Mississippi Military Department (MMD) personnel can assist with SAR; but before they can assist under the Immediate Response Authority which allows them to be utilized if life, limb - or eyesight is at stake. Soldiers or Airmen must be already in a duty status before Immediate Response Authority may be used, otherwise they must be put on State Active Duty (SAD) by Executive Order of the governor. *(This request must be made through the Forrest County EMA Director to MEMA and from MEMA to the Mississippi Military Department).*
- The ability of the State of Mississippi to effectively provide the requested assistance is contingent upon the Mississippi Fire Chief's Association and the Mississippi Emergency Management Agency's (MFCA & MEMA) capability to identify and request the appropriate state and/or federal agencies to support the search and rescue efforts. It is also contingent upon the effective planning, coordination and management of those search and rescue resources.
- All state and federal agencies responsible for supporting ESF #9 will communicate resource capability to the ESF #9 coordinators at the SEOC. The ESF #9 coordinators will direct needed assets to proceed to the forward SAR Base of Operations to check-in with the SAR Leader. The location of the initial forward SAR Base of Operations and initial staging area for all incoming SAR assets will be established by the state SAR Coordinator and communicated via the deployment order. When possible, state SAR response assets will be pre-deployed to a designated area(s) or a staging area within 60 minutes of the Mississippi Gulf Coast 24 hours prior to an expected hurricane landfall.

Forrest County Emergency Support Function #9 – Search and Rescue Annex

- It is assumed that an incident severe enough to trigger a Defense Support of Civil Authorities (DSCA) response may occur with little (notice) to no warning (no notice). If/when this occurs the Secretary of Defense will approve civilian agency requests for DSCA and Department of Defense (DOD) will respond under the current policies and procedures. At the request of civil authorities, DOD forces may respond to the DSCA incident under immediate response authority. If those forces remain at the incident site, they will fall under US NORTHCOM command and control. Title 10 military personnel shall not be employed to enforce or execute civil law in violation of United States Code, Title 18, Section 1385 (Posse Comitatus Act), except as otherwise provided by law. Under extraordinary circumstances, the President may direct DOD to lead the federal response.
- National Guard forces will be involved in nearly all DSCA operations. Normally, National Guard forces deployed to the affected state or in response to an EMAC request will operate under the control of state authorities.

General

- Forrest County fire and law enforcement organizations provide 24-hour coverage regarding fire safety and law enforcement. Also, both services maintain equipment and manpower in a continuous state of readiness for search and rescue missions. In addition, selected department personnel are trained in specialized skills such as Emergency Medical Technician (EMT), advanced first aid, and extrication procedures.
- The day-to-day rescue capability will be augmented during natural disasters to the extent necessary to eliminate the problems at hand. The operation may induce mobilizing medical personnel, building, trades engineering services, heavy equipment operation, the heavy-duty rescue squad, mutual-aid and military support.
- By law, the search for missing persons or the establishment of search and rescue missions is the responsibility of the Forrest County Sheriff. The Sheriff may serve as Incident Commander (IC) or he may appoint an IC and assign SAR personnel.
- The Sheriff's Department will notify The Emergency Management and other support agencies when ESF #9, Search and Rescue is activated.
- Initial SAR requirements, whether urban or rural, will be coordinated by Forrest County EOC. However management of the SAR operation may transition from the SO or EOC to a forward on-scene Search Mission Base.
- All agencies with ESF #9 responsibilities will ensure that they have SOPs in place, to enable them to perform appropriate levels of search and rescue mitigation, preparedness, response and recovery.
- If county emergency search and rescue resources have either been exhausted or are expected to be exhausted prior to meeting the demand, county officials will recommend that assistance be requested through Statewide Mutual Aid Compact (SMAC) from other counties or from other states through the Emergency Management Assistance Compact (EMAC).

Forrest County Emergency Support Function #9 – Search and Rescue Annex

Organization

Administrative and Logistical

All participating ESF # 9 agencies are expected to:

- Coordinate their support with ESF # 9.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF # 9 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF # 9 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.
- All ESF # 9 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Forrest County EOC

- Forrest County Emergency Management Agency will coordinate, organize, and employ Local SAR teams and resources, conduct periodic testing of capabilities, and are prepared to coordinate efforts with State and Federal SAR assistance teams.

ESF #9 Support

- Command structure is based in NIMS ICS
- Establish effective communications with both county and SMAC teams.

Actions

Preparedness

- Rescue squads, first responders (Fire Services/basic medical) and EMTs are trained on a regular basis in rescue skills and techniques.

Forrest County Emergency Support Function #9 – Search and Rescue Annex

- Rescue equipment is kept under a constant schedule of testing, maintenance, and repair.
- Response plans are revised at regular intervals and updated accordingly.

Pre-Incident

- The Forrest County Sheriff's Department will exercise the call down list of all support agencies.
- The Sheriff's Department will notify The Emergency Management District when any mission assignment is required within the county and advise if additional assistance is needed.
- The Emergency Management District will notify other support agencies and MEMA when ESF #9, Search and Rescue are activated.
- The Forrest County Sheriff's Department will make sure all County SAR teams are equipped, and have the manpower to carry out the missions.

Incident

- Upon notification by The Emergency Management District of a potential or actual event requiring response, all designated ESF #9 representatives will report to the Forrest County EOC or Designated Staging area.
- Initial SAR requirements, will be conducted from the EOC. However, management of the SAR operation may transition from the EOC to a forward command post.
- When needed, the Sheriff's Department can request the Air Force Rescue Coordination Center (AFRCC) to activate the Civil Air Patrol (CAP) to assign missions, and notifies the Forrest County Emergency Management Agency.
- The Sheriff's Department will also maintain a close consultation with The Emergency Management District in order to ensure awareness for potential State ESF #9 mobilization, if required.

Recovery

- Initiate return when mission completed
- Inventory and replace losses
- Secure and return to normal duty

Forrest County Emergency Support Function #9 – Search and Rescue Annex

Post-Incident

- The SAR coordinator will close consultation with the EOC and the team leaders and will determine when to begin demobilization of SAR forces. This decision will include plans for the demob, accountability of personnel, and check-in points for those personnel.
- The SAR coordinator will provide for counseling for personnel who feel that they need it before returning home.
- Prepare an after action report to outline issues, problems, lessons learned and any recommended solutions.

Responsibilities

Forrest County Sheriff's Department

- Direction and control of the total rescue force is the primary responsibility of the Forrest County Sheriff. The Sheriff will designate a Rescue Officer.
- Responsible for coordinating the search mission.
- Other Agencies are responsible for communicating all information back to the Sheriff's Department or EOC.
- Responsible for making sure that emergency first aid and medical triage are available for those found, and that any injured persons are transported to medical facilities for continued treatment.
- Coordinate with all designated search teams to update inventory of resources and roster of personnel.
- Coordinate transportation for deployed search and rescue teams.

Forrest County Fire Services

- Provide communications support for SAR and USAR operations.
- Provide ground and water SAR support.
- Provide firefighting personnel to locate, rescue and offer emergency assistance to persons in urban and rural areas.
- Establish and maintain base camp operations in support of USAR and SAR.

Forrest County Emergency Support Function #9 – Search and Rescue Annex

Forrest County EMA / EOC

- The Emergency Management District will coordinate, organize, and employ Local SAR teams and resources, conduct periodic testing of capabilities, and are prepared to coordinate efforts with State and Federal SAR assistance teams.
- Coordinate with the Sheriff's Office to allocate any resources or personnel requests to search mission.
- Make a formal request to MEMA for back-up assistance (CAP), if necessary.
- Coordinate volunteer services.
- Coordinate and request search and rescue resources from MCDEMA.

Support Agencies Responsibilities

Agency	Functions
Civil Air Patrol	• Assist in the search and rescue mission by providing fly-over missions. • Provide aerial search and rescue support. • Provide ground teams to support search and rescue operations. • Provide communications support to search and rescue mission in the field. • Assist in the transportation of search and rescue assets, equipment, and personnel.
Law Enforcement (County / City)	• Support all search and rescue missions as needed (i.e., communications, equipment, manpower, etc.) based on requirements by ESF #9 lead. • Cities will retain control over the search and rescue incident in their incorporated areas and will request assistance deemed necessary to complete the mission.
Forrest General Hospital	• Furnish trained personnel and equipment to administer advanced medical life support. • Assist trauma victims that are not in need of advanced life support. They will be managed and transported in the usual fashion; those that are determined to be in need will be moved by the most expedient method of transport to provide life support service which may consist of helicopter, boat, or a combination of the two.
AAA Ambulance Service	• Provides Air/ground patrol for rescue when needed on a local basis.

Forrest County Emergency Support Function #9 – Search and Rescue Annex

ESF Review and Maintenance

It is the responsibility of the Forrest County Sheriff's Department to coordinate with all support agencies in the review of this ESF annex annually, and to submit changes to the Forrest County Emergency Management Director for approval, publication, and distribution. Major support will be provided by the fire service, the law enforcement service, and the EMS service.

Appendices

Appendix -1 Search and Rescue Resources

ORGANIZATION	ADDRESS	POC	PHONE	RESOURCES

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

ESF # 10 Coordinator

Mississippi Department of Health

Forrest County Emergency Management

State Support Agencies

Forrest County Primary Agencies

Hattiesburg Fire Department
Petal Fire Department
Forrest County Fire Services
Forrest County Emergency Management

Mississippi Emergency Management Agency
Mississippi Department of Agriculture and Commerce
Mississippi Cooperative Extension Service
Mississippi State Fire Academy
Mississippi State Fire Marshall
Mississippi Department of Health
Mississippi Department of Marine Resources
Mississippi Military Department
Mississippi Oil and Gas Board
Mississippi Department of Public Safety- Highway Safety Patrol
Mississippi Public Service Commission
Mississippi Department of Transportation
University of Mississippi Medical Center
Mississippi Department of Insurance
Mississippi Department of Mental Health

Forrest County Support Agencies

Forrest County Sheriff's Office
Hattiesburg Police Department
Petal Police Department
AAA Ambulance Service
MSDH District Eight
Public Works and Engineering
District Supervisors and Mayors

Forrest County Non-Governmental Organizations

Forrest County Local Emergency Planning Committee (LEPC)

State Non-governmental Organizations

Emergency Response Contractors

State ESF Coordinator

Mississippi Department of Environmental Quality

State Private Sector Partners

Canadian National Rail Road
Kansas City Southern Rail Road
Norfolk Southern Rail Road
U.S. Environmental Services
Mutual-Aid Group

State Primary Agencies

Mississippi Department of Environmental Quality

Introduction

Purpose

The purpose of this Emergency Support Function (ESF) is to provide a detailed plan to the citizens of Forrest County for response to an actual or potential unplanned discharge or release of hazardous materials following catastrophic disasters, industrial accidents, transportation incidents, or other major events.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

Scope

This section of the plan is to be used to respond to incidents within the county's capabilities. It is also used when Forrest County's capabilities are exceeded and State and Federal government response is requested.

If the mobilization of State ESF#10 is required, the Mississippi Department of Environmental Quality is the Coordinating agency. When Federal ESF #10 is required, the U.S. Environmental Protection Agency (EPA) is the primary agency in the inland zone. All requests for this assistance will be submitted thru the Forrest County Emergency Management to MEMA.

Relationship to Whole Community

This section describes how the Federal ESF relates to other elements of the whole community.

Local, State, Tribal, and Area Governments

Local and tribal government fire departments generally provide the first response to oil and hazardous materials incidents. State and territorial governments may have environmental response programs that supplement local governments for larger-scale or more complex responses.

Each of the Regional Response Teams (RRTs) includes a representative of each state and territory within the region covered by the RRT. Tribes may also provide a representative to RRTs.

When activated to respond to a Stafford Act incident, the primary agencies for ESF #10 develop work priorities in coordination with local, state, tribal, territorial, and area governments and coordinate activities with them as appropriate at the Incident Command Post (ICP), Joint Field Office (JFO), and local/state Emergency Operation Centers (EOCs).

Private Sector/Nongovernmental Organizations

The private sector owns many of the facilities that manufacture, use, and manage oil and hazardous materials. Under the National Contingency Plan (NCP) the parties responsible for oil discharges and hazardous substance releases must clean them up or reimburse the government for the response. (The Comprehensive Environmental Response Compensation, and Liability Act (CERCLA) and Clean Water Act (CWA) Oil Pollution Act / (OPA) provide certain defenses to liability.)

The Environmental Protection Agency (EPA) and Department of Homeland Security (DHS) United States Coast Guard (/USCG) Operations Support Center (OSCs) employ private contractor resources to assist in conducting Federal response actions. Other parties responsible for cleaning up releases may also hire private contractors to perform the work.

Due to the hazardous nature of the work, public volunteers are not normally used in oil and hazardous materials response. However, in extraordinary situations, they may be used to assist in less hazardous support functions. Some nongovernmental organizations may also contribute specific skills, such as wildlife recovery and rehabilitation.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

Core Capabilities and Actions

ESF #10 provides for a coordinated response to actual or potential oil and hazardous materials incidents when activated for Stafford Act incidents. ESF #10 responses to oil and hazardous materials incidents are generally carried out in accordance with the County Fire Services and Mississippi Department of Environmental Quality (MDEQ) policies and procedures. Response structures and coordination mechanisms remain in place but coordinate with NRF mechanisms. Forrest County Fire Services respond at the on-site tactical level. Forrest County Fire Services provides representatives to the County EOC.

ESF Roles Aligned to Core Capabilities

The following table lists the Response core capabilities that ESF #10 most directly supports, along with the particular ESF #10 roles related to these core capabilities. In addition, all ESFs, including ESF #10, support the core capabilities of Planning and Operational Coordination.

The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.

Core Capability	ESF #10 – Oil and Hazardous Material Response
Environmental Response/Health and Safety	• Conduct actions to detect and assess the nature and extent of oil and hazardous material releases. • Take actions as appropriate to stabilize the release and prevent the spread of contamination; conduct environmental clean-up actions and decontaminate buildings and structures; and manage waste. • Follow applicable health and safety requirements for ESF #10 responders and coordinate, as needed, with Worker Health and Safety Support Annex response activities.
Critical Transportation	• For incidents where transportation infrastructure or routes are contaminated by oil or hazardous material: Help to identify safe evacuation and ingress routes; assess the nature and extent of contamination; and clean up and/or decontaminate infrastructure and routes. • For incidents involving a blast or explosion associated with a chemical, biological, or nuclear (CBRN) threat agent resulting in a contaminated debris field: ESF #3 leads local actions to clear transportation routes of CBRN-contaminated debris during the emergency phase, in consultation with ESF#10. ESF #10 assumes leadership for management of CBRN-contaminated debris after the emergency phase is over.
Infrastructure System	• For incidents where infrastructure is contaminated by oil or hazardous material: Assess the nature and extent of contamination and clean up and/or decontaminate infrastructure.
Public Information and Warning	• Provide the technical expertise to support the preparation of Federal public information related to the environmental response in support of ESF #15.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

	• It is recognized, however, that, in some cases, it may be necessary for responding EPA and DHS/USCG OSCs to communicate with the media/public on tactical operations and matters affecting public health and safety directly from the scene, particularly during the early stages of the emergency response.
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Policies

Management of HazMat incidents should follow the concepts of the Incident Command System (ICS). The majority of actions taken as HazMat incident should be defensive in nature and should be within the capabilities of personnel on-scene.

The Forrest County Fire Services is the primary vehicle for coordinating county activities under ESF # 10. The Mississippi Department of Environmental Quality, (MDEQ), is the primary agency for coordinating State agency activities under ESF #10. MDEQ carries out State planning and response coordination for oil and hazardous materials incidents, and works in coordination with the Emergency Support Function Coordinator regarding ESF #10 preparedness with other ESF elements.

Forrest County Fire Services in coordination with MDEQ carries out the ESF #10 responsibilities under the Forrest County CEMP to coordinate, integrate, and manage overall efforts to detect, identify, contain, clean up, dispose of, or minimize releases of oil or hazardous materials, or prevent, mitigate, or minimize the threat of potential releases.

Concept of Operations

Assumptions

- Releases of hazardous materials and related problems may be the primary event or may be the secondary result of a prior event such as a major storm, earthquake, hurricane, act of terrorism, transportation disruption, or other mishap.
- Improper handling of hazardous materials during transporting, manufacturing, packaging, or storing can transform what could have been a single event into a massive chain reaction with harmful consequences.
- Continued development of the transportation network and industrialization within the state and local areas leave few areas to be considered risk free from hazardous materials accidents.
- The population at risk from a single incident generally would be limited to areas located at least one mile from the incident site.
- Although hazardous material accidents cannot be eliminated, the risk of serious accidents can be reduced through training, education, incentives, and awareness. Appropriate mitigation and preparedness activities improve the ability of emergency management personnel to respond to such incidents.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

- The first responder to an incident will be properly informed, trained, and equipped to effectively assess the situation and communicate needs rapidly.
- The resources of local, State, and Federal governments, separately or in combination with those of industry and other private/semi-private sources, will be utilized to the maximum extent possible to eliminate, reduce, or remove the hazard.

General

- It is assumed the person discovering the spill or release will make the initial notification. If notification is made through the 911 communication system, the dispatcher will alert the Fire Department with jurisdictional oversight.
- The basic framework for response management activities covered under this plan will be the nationally recognized Incident Command System. Ultimately the senior fire services individual with the responding fire department will assume the responsibility as Incident Commander.
- The Incident Commander is responsible for assessing the hazard and determining the classification of each incident. The classification of any incident may be up or downgraded as deemed necessary. Local factors must be given careful consideration in classifying an incident and implementing appropriate response actions.
- The factors that should be considered include, but are not necessarily limited to:
 - types and quantities of oil or hazardous materials involved;
 - wind direction and speed (if there is a potential for an atmospheric release);
 - local drainage characteristics (if there is a potential for a liquid release);
 - Potential population effects (proximity of residences, businesses, etc.);
 - proximity of sensitive environmental areas such as potable water supplies, navigable waterways, wetlands, etc.;
 - transportation and evacuation networks and impediments (road, rail , water),
 - Location and availability of response resources.
- If county resources have either been exhausted or are expected to be exhausted prior to meeting the demand, county officials will recommend that assistance be requested through the Statewide Mutual Aid Compact (SMAC) from other counties or from other states through the Emergency Management Assistance Compact (EMAC).
- If an incident involves, or is suspected of involving hazardous materials, personnel shall not enter the area without proper protective equipment. If in doubt about the identity of any materials involved, the Incident Commander shall assume that the material is hazardous and take all precautions to protect human health and the environment.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

Organization

Administrative and Logistical Support

All participating ESF #10 agencies are expected to:

- Coordinate their support with ESF #10
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #10 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #10 agencies which have automated financial management systems will utilize those systems to capture incurred costs of all available, acquired, and contracted resources used during the support activities related to emergency or major disaster operations. Those agencies not having access to an automated system will utilize their existing system to capture all related costs for reporting and potential reimbursement.
- All ESF #10 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Forrest County Local Emergency Planning Committee (LEPC)

The LEPC is a coordinated voluntary public and private sector initiative to establish an integrated community awareness and emergency communication network to aid the public, which could be affected by a chemical emergency. The role of LEPCs is to form a partnership between local government and industry as a resource for enhancing hazardous material preparedness. Local governments are responsible for the integration of hazmat planning and response within their jurisdiction. The membership comes from the local area and should be familiar with factors that affect public safety, the environment and the economy of the area.

The goals of this group are to enhance the safety of the citizens of Forrest County in the event of an industrial or transportation emergency through the means of:

- Developing a hazardous materials emergency response plan, and reviewing it at least once annually.
- Integration of plant emergency plans with existing community emergency plans that cover all risks.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

- Education and awareness of the public sector of major chemical products stored and transported through Forrest County.
- Conducting periodic hazardous material incident exercises and drills for the purpose of training personnel and identifying ways to improve planning and response capabilities.
- Communication with, and involvement of, the local communities in developing, implementing, and updating this Emergency Support Function.
- Facilities that use, manufacture, or store extremely hazardous substances and have them on site at any time and in quantities equal to or greater than the designated threshold planning quantity (refer to 40 CFR Part 370, www.ecfr.gov) are required to submit Tier II information.
- In an effort to streamline the yearly Tier II reporting process, the State Emergency Response Commission (SERC) requires the use of the web-based program E-Plan for all Tier II submittals. A single submission of Tier II information to E-Plan satisfies the requirement for individual submissions to the SERC, LEPC, and local jurisdictional fire departments.

Actions

Preparedness

- All county agencies or departments will support development and maintenance of SOPs to enable them to perform appropriate levels of preparedness, response, and recovery related to Managing Hazardous Materials.
- The Emergency Management Director should conduct periodic hazardous materials related emergency incident exercises or drills.
- Public Service agencies with emergency response duties and industrial facilities are responsible for providing training to their personnel as required by the state and/or Federal regulations.
- Participate in training and exercises when scheduled.

Pre-Incident

- Once the Incident Commander has classified the incident, establish a unified command post and one or more staging areas for response and response personnel and equipment.
- The unified command post shall include representatives from all responding public service agencies, and a facility official if the incident occurs on facility property.
- All response activities must be coordinated through the unified command post.
- Defensive actions to contain hazardous materials should be initiated by the Incident Commander as soon as possible, unless such actions would endanger response personnel.
- Defensive actions may include closing of valves, disconnection of utilities, deployment of absorbent materials or absorbent booms, use of fences, and stabilization of berms, dikes, or impoundments.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

Incident

- Upon activation of ESF #10, the Forrest County Emergency Management Agency/EOC will communicate this information to all other ESF #10 members.
- The Incident Commander (or designee) shall submit an Initial Disaster Report to the Forrest County Emergency Management Director who will then forward to MEMA within 4-hours. A follow-up Situation Report shall be submitted in the same manner within 24-hours; if there have been any additional developments since the initial report was submitted.
- Ensure adequate communications are established and maintained.
- Coordinate the distribution of assets as needed.
- Maintain a complete log of actions taken, resources ordered, records, and reports.
- Assist in gathering and providing information and establishing priorities to ESF #5.
- Assist in gathering and providing information to ESF #15 for press releases.
- Assist in assessment and coordination for ESF#3.

Recovery

Cleanup and disposal efforts will be coordinated by the Incident commander (and facility officials if appropriate) as soon as possible after the incident has been stabilized.

Post-Incident

- The Incident Commander or designee must submit a report containing the following information to the EPA Regional Administrator within 15-days after the incident (refer to 40 CFR 265.56 (j)):
 - the date and time of the incident, name, address and telephone number of the owner or operator responsible (if known);
 - the materials involved;
 - an assessment of actual or potential hazards to human health or the environment, if applicable;
 - the estimated quantity and disposition of recovered material associated with the incident.
- Provide an after action report to document issues, lessons learned, problems, and recommended solutions to the Forrest County Emergency Manager.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

Responsibilities

Forrest County Fire Services

- The senior fire official within the jurisdiction will serve as the Incident Commander and will establish a command post and a staging area for response personnel, as the situation warrants.
- Evaluates the situation, determines the appropriate emergency classification, and coordinates response activities as deemed appropriate.
- Informs the Forrest County Emergency Management Director and other appropriate personnel of the incident as soon as possible.
- Takes appropriate safety measures for response personnel and the local population.
- Contains, isolates, and neutralizes the hazardous materials, if resources allow.
- Notifies the responsible party (hauler, carrier, owner, etc.), if known, to initiate clean-up efforts.
- Provides rescue, extrication, recovery, and decontamination services for incident victims, if any.
- Monitors the incident area to assure proper and complete clean-up.
- Submits Incident Report(s) to the Forrest County Emergency Management Office.

Forrest County Emergency Operations Center (EOC)

Forrest County Emergency Management Agency will report incidents to Mississippi Emergency Management Agency (MEMA), who in turn will notify the Mississippi Department of Environmental Quality's (MDEQ) Pollution Control Division.

Support Agencies Responsibilities

Agency	Functions
Law Enforcement	• Assigns an individual to report to the unified command post, and additional personnel to the designated safe staging area(s). • Supports the Incident Commander in accordance with Unified Command principles. • Secure the area of the incident/spill; allow no one in the area except authorized emergency personnel. • Reroute traffic as required. • Determine the names of the chemical(s) involved by using the Emergency Response Guidebook (ERG). • If hazardous material is highly toxic, officers will immediately evacuate the surrounding area as determined by the senior law enforcement officer at the command post. • Coordinates traffic control and/or evacuation, as directed by the Incident Commander.

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

Agency	Functions
Emergency Medical Services	• Assigns an individual to report to the unified command post, and additional personnel to the designated safe staging area(s). • Supports the Incident Commander in accordance with Unified Command principles. • Coordinates all health and medical care services for the sick and injured. • Notifies local hospitals and coordinates appropriate delivery of the sick and injured to definitive care facilities. • Activates mutual aid agreements as necessary when local emergency medical resources are overwhelmed.
Forrest County Health Department	• Provides technical support for hazardous materials operation as required.
Public Works and Engineering Departments	• Develops and maintains hazardous materials incident Standard Operating Procedures (SOPs). • Forrest County and/or municipal public works departments of affected jurisdictions shall provide support to the integrated command post upon request. • Other responsibilities shall include, but are not limited to: transportation of hazardous materials, assist with containment, build containment dikes, supply heavy equipment, clean-up, provide traffic control devices.
Board of Supervisors and Mayors	• Provide financial approval for expenditures. • Declare a Proclamation of a Local Emergency. • Order mandatory evacuations, as per Forrest County Emergency Management Director's recommendation. • Support hazmat incident with available resources.

ESF Review and Maintenance

This ESF will be reviewed every two years by the LEPC, in conjunction with the Forrest County Emergency Management Director as required by 40 CFR 300.215(a). Immediate review and amendment is required whenever the applicable regulations are revised, or if the plan fails in an emergency.

Appendices

Appendix 1 – MDEQ Regional Offices Map

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

Appendix 1

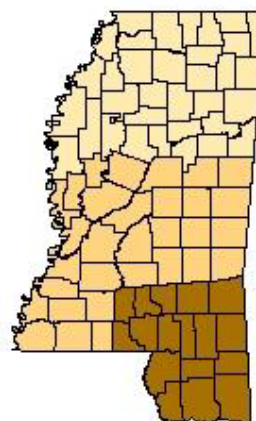
Mississippi Department of Environmental Quality Central Regional Office

The Field Services - Central Regional Office provides investigative, logistical and limited analytical support for the major MDEQ regulatory programs for central Mississippi.

Location

The Central Regional Office (CRO) is located in Pearl, Mississippi in Rankin County. Counties served by the CRO include:

Adams	Jefferson	Sharkey
Amite	Kemper	Simpson
Attala	Lauderdale	Smith
Claiborne	Leake	Warren
Clarke	Lincoln	Wilkinson
Copiah	Madison	Winston
Franklin	Neshoba	Yazoo
Hinds	Newton	
Holmes	Noxubee	
Humphreys	Pike	
Issaquena	Rankin	
Jasper	Scott	



Services

Closer contact with pollution sources and the affected population allows the staff of these offices to better respond to public needs such as:

- inspections
- routine air and water monitoring
- investigation of fish kills
- spills and accidents involving oil or hazardous materials
- coordination with the state civil defense on national disasters
- Other emergency services during incidents involving substances dangerous to lives and property.

Address and Directions

Central Regional Office
1542 A Old Whitfield Road
Pearl, MS 39208

Take I-20 east from Jackson to exit 52 (Jackson International Airport exit) and continue south on Hwy 475 to the first right, which is Old Whitfield road. Go about 2 miles and we will be in the curve just before the MS

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

State Fire Academy.

Appendix 1

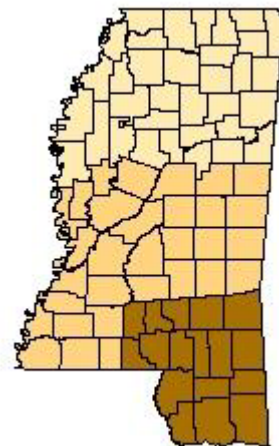
Mississippi Department of Environmental Quality North Regional Office

The Field Services - **North Regional Office** provides investigative, logistical and limited analytical support for the major MDEQ regulatory programs for northern Mississippi.

Location

The North Regional Office (NRO) is located in Oxford, Mississippi in Lafayette County. Counties served by the NRO include:

Alcorn	Lafayette	Sunflower
Benton	Lee	Tallahatchie
Bolivar	Leflore	Tate
Calhoun	Lowndes	Tippah
Carroll	Marshall	Tishomingo
Chickasaw	Monroe	Tunica
Choctaw	Montgomery	Union
Clay	Oktibbeha	Washington
Coahoma	Panola	Webster
Desoto	Pontotoc	Yalobusha
Grenada	Prentiss	
Itawamba	Quitman	



Services

Closer contact with pollution sources and the affected population allows the staff of these offices to better respond to public needs such as:

- inspections
- routine air and water monitoring
- investigation of fish kills
- spills and accidents involving oil or hazardous materials
- coordination with the state civil defense on national disasters
- Other emergency services during incidents involving substances dangerous to lives and property.

Address and Directions

North Regional Office
8 County Road 413
Oxford, MS 38655

From Oxford, travel east on Hwy 6 (towards Pontotoc/Tupelo) approximately 3 miles. You will

Forrest County Emergency Support Function #10- Oil and Hazardous Material Response Annex

see a water tower on your right. Turn right onto the next county road (CR 413) after you pass the water tower. The North Regional Office will be the first driveway on the right.

Appendix 1

Mississippi Department of Environmental Quality South Regional Office

The Field Services - **South Regional Office** provides investigative, logistical and limited analytical support for the major MDEQ regulatory programs for southern Mississippi.

Location

The South Regional Office (SRO) is located in Biloxi, Mississippi in Harrison County. Counties served by the SRO include:

Covington
Forrest
George
Greene
Hancock
Harrison

Jackson
Jeff Davis
Jones
Lamar
Lawrence
Marion

Pearl River
Perry
Stone
Walthall
Wayne



Services

Closer contact with pollution sources and the affected population allows the staff of these offices to better respond to public needs such as:

- inspections
- routine air and water monitoring
- investigation of fish kills
- spills and accidents involving oil or hazardous materials
- coordination with the state civil defense on national disasters
- other emergency services during incidents involving substances dangerous to lives and property.

South Regional Office
1141 Bayview Avenue, Suite 208
Biloxi, MS 39530

From I-10 take Exit 46A to I-110 South. Cross over Biloxi Back Bay bridge and take exit 1B (first exit to right after bridge). Turn right (west) off exit ramp onto Bayview Ave. Continue west on Bayview through 4-way stop, Bolton State Office Building is on the left (south) side of Bayview Ave.

From Highway 90 turn north on Porter Avenue (at lighthouse) to dead end at Bayview Ave. Turn left (west), go through 4-way stop, Bolton State Office Building is on the left (south) side of Bayview Ave.

**Forrest County Emergency Support Function #10- Oil and Hazardous Material
Response Annex**

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

Primary Agencies:

Forrest County Emergency Management
Forrest County Animal Control Agencies
Forrest County Extension Service (CES)
Forrest County Humane Agencies
Local Veterinarians and Veterinary Technicians

State Coordinating/Primary Agencies:

Mississippi Board of Animal Health (MBAH)
Mississippi Animal Response Team
(MART)
Mississippi Department of Agriculture (MDAC)

Support Agencies:

Forrest County Farm Bureau
Forrest County Cattlemen's Association
Forrest County Equine Association
Forrest County 4-H Clubs and Volunteers
Forrest County Department of Health
Wildlife Rehabilitators
Private Sector Interest groups (equine,
Cattle, small ruminants, birds (including
poultry), marine mammals, reptiles, pocket pets,
etc.)
Volunteer Organizations Active in Disasters

State Support Agencies:

Mississippi Department of Environmental
Quality (MDEQ)
Mississippi Department of Wildlife, Fisheries
and Parks (MDWF&P)
Mississippi Forestry Commission (MFC)
Mississippi Department of Marine Resources
(MDMR)
Mississippi Non-Governmental Organizations:
Mississippi Volunteer Organizations Active in
Disasters

Introduction

Purpose

This ESF focuses on issues concerning live companion animals (pets), livestock (including horses), exotic animals, poultry, and wildlife, as well as disposal of carcasses resulting from natural disasters.

Foreign animal or exotic livestock/poultry disease events; crop disease or pest infestations; food safety, feed, seed, fertilizer and/or pesticide emergencies will immediately be the responsibility of the state primary agencies. (See State CEMP/ESF #11)

At the state and federal level ESF #11, supports county and municipal authorities in efforts to address: (1) control and eradication of an outbreak of a highly contagious or economically devastating animal/zoonotic disease, highly infective exotic plant disease, or economically devastating plant pest infestation, (2) safety and security of food, feed, seed, fertilizer and pesticides, and (3) coordination of efforts to provide for all animals and crops affected by disasters (all-hazards).

Protection of human life is the highest priority in emergency response. Recent disasters and follow-up research have shown that proper preparation and effective coordination of animal issues enhances the ability of emergency personnel to protect both human and animal health and safety. Basically, Animal Emergencies are Human Emergencies.

Scope

- Animal disaster response includes implementing an integrated county and municipal response to ensure that animal/veterinary/wildlife issues in disease and natural disasters are supported in coordination with ESF #8: Public Health and Medical Services and ESF #6: Mass Care.

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

- If ESF #11 of the Mississippi CEMP is activated, the Mississippi Board of Animal Health and the Mississippi Department of Agriculture are the primary agencies in coordination with the Mississippi Emergency Management Agency and other agencies for state level support.
- If ESF #11 of the National Response Framework (NRF) is activated, the U.S. Department of Agriculture (USDA), Food and Drug Administration (FDA), Environmental Protection Agency (EPA), and the Department of the Interior (DOI) are the primary agencies in coordination with the Federal Emergency Management Agency (FEMA) and other agencies for support.

A food, animal, and/or agriculture incident may threaten public health, animal nutrition, food production, aquaculture, livestock production, wildlife, soils, rangelands, and agricultural water supplies. Responding to the unique attributes of this type of incident requires separate planning considerations that are tailored to specific health and agriculture concerns and effects of the disease (e.g., deliberate contamination versus natural outbreaks, plant and animal versus processed food, etc.). Specific operational guidelines, developed by organizations with responsibility for the unique aspects of a particular disease or planning consideration, will supplement this annex and are intended as guidance to assist State, and local public health and agriculture authorities.

Special Considerations

Detection of an intentional or unintentional contamination/adulteration of food, animals, plants, or a pest outbreak may occur in several different ways and involve several different modalities:

A terrorist attack on food, animals or agriculture may initially be indistinguishable from a naturally occurring event; moreover, depending upon the particular agent and associated symptoms, several days could pass before public health, food, agriculture and medical authorities even suspect that terrorism may be the cause. In such a case, criminal intent may not be apparent until some time after illnesses are recognized.

A devastating attack or the threat of an attack on the domestic animal population and plant crops through use of highly infective exotic disease or pest infestation could result in severe economic loss. Early detection, allowing for early intervention, would come from agriculture expert authority reports as well as unusual patterns in surveillance systems. A food or agricultural incident may involve international trade.

Relationship to the Whole Community

This section describes how ESF #11 relates to other elements of the whole community.

Individuals/Households

Individuals are responsible for knowing the risks they face and developing emergency plans for their families that include emergency preparedness for the animals in their household, whether those animals are owned for pleasure or commercial purposes. To the extent possible, during an incident, individuals should carry out their emergency plans in accordance with responder instructions.

During an incident, to the extent practical, animal evacuation and sheltering should be conducted in conjunction with human evacuation and sheltering efforts; animals should be sheltered near their owners. Service animals are not pets and may not be separated from the individual with a disability or other access and functional need, and they should be permitted anywhere the public goes. Owners should provide food, water, husbandry, and exercise for their animals while they are in emergency shelters.

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

State, Tribal, Territorial, Area, and Local Governments

Local, state, tribal, territorial, and area governments are primarily responsible for the welfare of individuals and animals within their jurisdictions.

Typically, at the local level, the animal control agency is the authority that has jurisdiction for non-disease animal emergency management issues within a given community. At the state level, the Department of Agriculture, Board of Animal Health, State Wildlife Management Agency, or the Emergency Management Agency coordinates animal response activities.

When requested and mission assigned, ESF #11 can assist in coordinating or providing technical assistance to address animal/agriculture emergency management issues. The state, tribal, or territorial government designates an official(s) to coordinate with the Mississippi Department of Agriculture and Commerce and Board of Animal Health. This official(s) serve as the principal point(s) of contact with ESF #11 Coordinators at the Regional Response Coordination Center.

Transportation and distribution of food supplies within the affected area are arranged by local, state, tribal, territorial, insular area, Federal, and voluntary organizations.

Animal and agricultural health responses are conducted in collaboration and cooperation with state authorities and private industries to ensure continued human nutrition; animal, plant, and environmental health; and support of economy and trade.

Inspection of meat, poultry, and processed egg products; production and import facilities; and distributors during a response may be conducted, occur with local, state, tribal, territorial, and insular area authorities and the regulated industry, if needed, to ensure public health and support the economy and trade.

Actions taken during an animal or agricultural emergency are guided by and coordinated with local, state, tribal, territorial, and insular area emergency preparedness and response officials, homeland security officials, and existing USDA internal policies and procedures.

Actions taken during an emergency threatening the environment or cultural and historic resources are guided by and coordinated with the appropriate local, state, tribal, territorial, and insular area agencies, including the state historic preservation office, state archives, and local emergency management agencies.

Private Sector/Nongovernmental Organizations

Most animal and agriculture emergency response resources and assets are owned or controlled by the private sector and NGOs.

Animal emergency management is and has always been a whole community effort—a blending of emergency management and animal handling expertise. At the local level, veterinarians, farmers, animal control agencies and humane organizations, breeders, wildlife rehabilitators, and others make up the animal infrastructure within a community. These entities should be encouraged to collaborate with government to meet emergency animal needs in their communities. Many states have integrated animal response capabilities, such as county and/or state animal response teams, veterinary medical reserve corps, or similarly named entities.

Animal and agricultural health responses are conducted in collaboration and cooperation with state authorities and private industries to ensure continued human nutrition; animal, plant, and environmental health; and support of economy and trade. Businesses where animals are integral to operations (such as production agriculture, zoos/exhibitors, research facilities, breeders, animal welfare agencies/sanctuaries, and veterinary hospitals) should be encouraged to have contingency plans in place for animals housed in

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

the facility, in the event of a disaster or emergency. Nonprofit networks can provide information on contingency planning for veterinary facilities, zoos, and other congregate animal facilities.

Transportation and distribution of food supplies within the affected area are arranged by local, state, tribal, territorial, insular area, Federal, and voluntary organizations. Inspection of meat, poultry, and processed egg products; production and import facilities; and distributors during a response may be conducted with local, state, tribal, territorial, tribal, and insular area authorities and the regulated industry, if needed, to ensure public health and support economy and trade.

Core Capabilities and Actions

ESF Role Aligned to Core Capabilities

The following table lists the Response core capabilities that ESF #11 most directly supports, along with the related ESF #11 actions. Though not listed in the table, all ESFs, including ESF #11, support the core capabilities of Planning, Operational Coordination, and Public Information and Warning.

NOTE: Many activities are performed under statutory authority; mission assignments are needed to utilize ESF #11 capabilities listed when the mission exceeds functions performed under statutory authority, such as activities related to household pets and service animals.

Core Capability	ESF #11 – Animals and Agriculture
Mass Care Services	Animal (including Household Pets and Service Animal) Mass Care and Emergency Assistance • Supports ESF #6 to coordinate an integrated State and Federal response to meet the mass care and emergency assistance needs of animals, including household pets and service animals, and their owners. • Facilitates whole community multi-agency coordination with NGO agencies for animal response activities. • Provides technical assistance and subject matter expertise to local, state, tribal, territorial, insular area, and Federal government, and NGOs, regarding animal response issues. • Coordinates needs assessments for animals, including household pets and service animals, and animal response needs and activities including technical support for evacuation and emergency animal sheltering.
Critical Transportation	Safety and Defense of the Supply of Meat, Poultry and Processed Egg Products: Ensures meat, poultry, and processed egg products in commerce are safe, under MDAC's jurisdiction.
Public Health and Medical	Animal and Agricultural Health • Responds to animal and agricultural health emergencies under MBAH and MDAC statutory authority. • Coordinates with ESF #8 on management of zoonotic disease. • Coordinates with ESF #8 to ensure that animal/veterinary health issues (including both disease management and medical management) are supported. • Collaborates with ESF #8, HHS and USDA to deliver

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

	effective “one health” response that integrates human, animal, and environmental health. • Serves as the State lead on animal (including zoonotic) diseases. • Coordinates with ESF #3 on the removal of debris (carcasses) Safety and Defense of the Supply of Meat, Poultry and Processed Egg Products: Ensures regulated facilities are capable of providing safe meat, poultry, and processed egg products under MDAC’s jurisdiction.
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Policies

Actions undertaken under ESF #11 are coordinated with and conducted through county and municipal incident management officials and with private entities. Additional coordination is required with Mississippi Emergency Management Agency, the Mississippi Board of Animal Health, and the Mississippi Department of Agriculture and Commerce.

- Each supporting agency is responsible for managing its respective assets and resources after receiving direction from the primary agency for the incident.
- The primary agency for each incident coordinates with appropriate ESFs and other annexes, including the coordinating agency for the Worker Safety and Health Support Annex, to ensure appropriate use of volunteers and their health and safety and to ensure appropriate measures are in place to protect the health and safety of all workers.

Animal Disaster Response Policies

- Residents of Forrest County are responsible for their own pets and should, whenever possible take their animals with them and provide for their private care when they are instructed to evacuate their homes.
- Livestock producers of Forrest County are responsible for their own animals. If livestock must be evacuated, the producer should work with the local county emergency management agency and the ESF #11 Coordinator.
- The MBAH is the primary state agency for addressing animal disaster issues. The MBAH coordinates local, state, and federal animal response activities such as medical care, sheltering, evacuation, rescue, temporary confinement, procuring feed, food and water, animal identification, carcass disposal and returning animals to owners related to natural disasters when ESF#11 is activated. The State Veterinarian is the MBAH primary point of contact.
- The State Veterinarian will establish quarantines, permit requirements, and holding periods for animals. These requirements are based on many factors, including disease epidemiology, species affected, scope and type of disaster, animals’ health and temperament.
- Euthanasia of animals will be done humanely and at the direction of incident veterinarians.

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

- Disposal methods for infected or potentially infected/contaminated carcasses and plant material are chosen for their effectiveness in stopping pathogen spread and for their minimal impact on the environment.
- The Mississippi Animal Response Team (MART) is the state response team for animal issues when state ESF #11 is activated. The MART is under the direction of the State Veterinarian.
- Animal Disaster Responders must be credentialed by MART and sign a Code of Conduct in order to officially respond to an animal disaster.
- Responders will establish and maintain contact with EOC/Incident Command staff, through the County ESF #11 Coordinator, County Animal Response Team, or assigned voluntary agency liaison/representative.
- Responders must be ESF #11 credentialed and have an appropriate level of training for the assigned response activity.
- Personnel doing animal response activities that are not credentialed will be required to leave the incident. Personnel that do not adhere to the Code of Conduct will have their credentials revoked and will be removed from the incident.
- Counties are encouraged to form County Animal Response Teams (CARTs). CART personnel will automatically be included as members of the MART. MART members will follow all applicable local and state emergency management directives.
- The MBAH and the MART use ICS to manage animal disasters and are NIMS compliant.
- When addressing dangerous, aggressive, injured or diseased animals that must be euthanized, activities will be conducted as humanely as possible while minimizing the number of animals that must be euthanized.

Plant and Plant Pest Policies:

- The MDAC is the primary agency addressing the protection of seed, feed, fertilizer and pesticide; and plant disease and plant pest field investigations.

Food Safety and Security Policies:

- The MDAC is the primary agency for agricultural food safety and security issues. The MDAC coordinates local, state, and federal agricultural food safety response activities including the inspection and verification of food safety aspects of slaughter and processing plants and products in distribution and retail sites under the department's jurisdiction. The Commissioner of Agriculture is the primary point of contact.
- MDAC coordinates with ESF#8, Public Health and Medical Services and federal regulatory agencies as appropriate.

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

Concept of Operations

General

The Forrest County Emergency Management Director will keep all responsible agencies informed of all impending conditions (transportation developments, weather, hazardous materials, or other event) which would cause them to assume a readiness posture in preparation of EOC activation, possible deployment of resources to a forward area or other required activities to support this ESF.

Organization

The Forrest County ESF #11 representative or designee will assume the lead as coordinator of all animal and agricultural requirements during an incident, major emergency or disaster. These duties will be executed in conjunction with personnel and resources as listed under all support agencies for the county and the state.

Administrative and Logistical Support

All participating ESF #11 agencies are expected to:

- Coordinate their support with ESF #11.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #11 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #11 agencies understand that their financial management system, automated or otherwise, used to capture their incurred costs during an emergency, major disaster, or exercise must be in compliance with applicable agency, State, and Federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.
- All ESF #11 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

- All Forrest County agencies with ESF #11 responsibilities will ensure that they have Standard Operating Procedures (SOPs) in place to enable them to perform appropriate levels of mitigation, preparedness activities and personnel prior to the initiating event.

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

- Conduct annual training drills or exercises to ensure a high level of readiness for response personnel.

Pre-Incident

- Forrest County ESF #11 lead will develop/maintain alert and have notification procedures for key agricultural/health officials and agencies that support ESF #11.
- Ensure a designated person is identified to work (24 hour coverage if necessary) within the Forrest County Emergency Operation Center. This resource shall remain until the Emergency Operation Center operations return to normal.

Incident

- Immediately upon notification of an incident, actual disaster or major emergency the Forrest County ESF #11 coordinator will activate the internal plan and/or SOP.
- Ensure adequate communication is established/maintained with all applicable responders of ESF #11.
- Coordinate the distribution of assets as needed or based on requirements identified by Forrest County's local government and other ESFs as needed.
- Maintain log of actions taken, resources ordered/used, records of personnel and equipment/ location and all other documents to support reporting requirement.
- Assist in gathering information to support the state ESF #11 lead to be disseminated through public broadcast via ESF #15 (External Affairs).

Recovery

- Forrest County ESF# 11 coordinator will work in conjunction with ESF #6 (Mass Care, Housing and Human Services) and ESF #8 (Public Health and Medical Services) to assess damage and evaluate damage before re-entry and recovery and report the finding to the Forrest County Emergency Management Director at the Emergency Operation Center in writing to be file.
- Will assist with the monitoring of food, water, soil, and air conditions along with the state and federal authorities as needed during and post recovery to ensure the safety of all areas of Forrest County.
- Coordinate with the Forrest County Emergency Operation Center to ensure that all recovery and re-entry information is disseminated through Public Radio, broadcast media and other available sources (Public Information Officer).

Post-Incident

- Develop a timeline to ensure all support personnel have been re-deployed back to their agencies and/or organizations.
- Identify key problem areas as part of the lessons learned agenda.
- Provide after-action requirements through the Forrest County Emergency Management Director to ensure lessons learned and recommended solutions are captured.

Responsibilities

Forrest County Agriculture Representative

Forrest County will ensure that the Forrest County Cooperative Extension Service or designee is tasked based on position to serve as lead for the ESF #11 requirements for Forrest County. The coordinator will be required to develop, maintain and execute all of the personnel and resources to support all incidents, disasters and or major emergency that would affect Forrest County and its citizens. The below items outline specific duties:

- Develop and maintain an internal SOP that outlines all functions required for ESF # 11 supports.
- Coordinate with ESF # 6 (Mass Care, Housing, and Human Services) ESF #8 (Public Health and Medical Services) and Forrest County local officials will determine food needs for the affected population.
- Coordinate the gathering of emergency food supplies, storage warehouses and the transportation and distribution of supplies to members of affected households for take-home consumption.
- Coordinate the acquisition of food donations to supplement food needs.
- Maintain a roster of personnel that assist with various animal issues.

Forrest County Emergency Management Agency Director

The Forrest County Emergency Manager upon the advisement from the State (if warranted) and work in conjunction with the Forrest County Board of Supervisors, Cities of Hattiesburg and Petal Mayor's and City Council Officials, will complete the following:

- Ensure the timely and efficient activation of the requirements of ESF #11.
- Confer with the support agencies to make decisions based on the incident to deploy designated support personnel to the Forrest County Emergency Operation Center.
- Task in conjunction with the ESF #11 coordinator all available resources and trained personnel deployed to designated areas as needed.
- Provide all agencies and volunteers with up-to-date information that would affect the situation (weather, changes in conditions of the situation, road closures, etc.)

Forrest County Emergency Support Function #11 –Animals and Agriculture Annex

Support Agencies' Responsibilities

Agency	Functions
Forrest County Extension Service/Forrest County Humane Society	• Liaison to assign support agency personnel to designated locations. • Allocate or obtain health and human resources for task deemed appropriate by the Emergency Management Agency Director or his assistance. • Alert all applicable personnel of possible deployment. • Coordination with the State Veterinarian and State Animal Health Officer to ensure all animals, zoological needs are in compliance with state and federal law. • Support Human services and school districts to accomplish the needs of the Forrest County Emergency Operation Center to meet the needs of the people of Forrest County. • Coordinate animal support supplies (Feed, Fencing, Post, Vet supplies, shelter, etc.).
Forrest County School District	• Support Transportation resources upon request. • Open school kitchens and building as needed to feed and shelter persons of Forrest County. • Dedicate resources from inventory. • Maintain coordination with Forrest County EOC • Public School District Transportation Director and the Forrest County Emergency Operation Center.
Forrest County Sheriff's Department Hattiesburg Police Department Petal Police Department	• Assist with transportation traffic control. • Provide security to all food and water shipments being delivered to the county and at all distributions area in Forrest County. • Provide necessary property protection of evacuated areas. • Assist with route clearance of debris as needed.
Hattiesburg and Petal Public Works Department/Engineering Forrest County Road Department	• Monitor water, food, and animals for signs of contamination. • Close roads and access to areas of contamination. • Assist with keeping routes open to emergency vehicles. • Provide equipment and transportation of animals that have been contaminated or need to be buried. • Assist in the loading/unloading of all equipment, food, water, and/or supplies for the distribution to Forrest County.

ESF #11 Reviews and Maintenance

The Forrest County Cooperative Extension Services with the aid of the Forrest County Humane Society will coordinate the annual revision of this ESF #11, and with all of the support agencies. Other unscheduled reviews and revision may be made after implementation of the plan or because of changes in laws or regulations. Recommendations for changes will be submitted to the Forrest County Emergency Management Agency Director for approval and distribution.

Forrest County Emergency Support Function #12 – Energy Annex

ESF #12 Coordinator

Mississippi Power Company
South Mississippi Electric Power Assn.
Southern Pine Electric Power Assn.
Pearl River Valley Electric Power Assn. Wilmut
Gas Company
PDMA Facilities (see attached list)
Center Point Energy, Blossman Gas

Support Agencies

Forrest County EMA
Forrest County, Hattiesburg, and Petal Public
works
Forrest County Maintenance
AAA Ambulance Service

Mississippi Support Agencies:

Mississippi Emergency Management Agency
(MEMA)
Mississippi Public Service Commission (MPSC)
Mississippi Military Department (MMD)

State ESF Coordinator:

Mississippi Development Authority, Energy
Division (MDA/ED)

State Non-Governmental Organizations:

Electric Power Associations of Mississippi

Introduction

Purpose

This Emergency Support Function (ESF) is intended to facilitate restoration of Forrest County's energy and utility systems following a natural or man-made disaster. ESF #12 involves-cooperation with utility companies to ensure that the power supply systems are maintained during emergency situations, and that damages that may be incurred are repaired and services are restored in an efficient and expedient manner afterward.

Scope

ESF #12 addresses significant disruptions in energy supplies for any reason, whether caused by physical disruption of energy transmission and distribution systems, unexpected operational failure of such systems, or unusual economic or international political events.

This ESF is applicable to the producing, refining, transporting, generating, transmitting, conserving, building, distributing, and maintaining of energy systems and system components. In this capacity, ESF #12 serves to collect, evaluate, and share information on the impact of energy system outages as well as on the progress of the energy restoration process, to include projected schedules for restoration of power, percent completion of restoration, and geographic information on the restoration.

Relationship to the Whole Community

This section describes how ESF #12 relates to other elements of the whole community.

Local, State, Tribal and Area Governments

- When activated, ESF #12 personnel may deploy to local, state, tribal, or area emergency operations centers.

Forrest County Emergency Support Function #12 – Energy Annex

- Assists local, state, tribal, area governments with requests for energy-related emergency response actions as required meeting the affected area's energy demands, and, through DOE, the Energy Sector-Specific Agency works to identify interdependencies and cascading impacts to other jurisdictions and critical sectors.
- Local, state, tribal, and area governments, in coordination with energy asset owners and operators, have primary responsibility for prioritizing the reestablishment of critical infrastructure. They are integrated into ESF #12 operations.

Private Sector/Nongovernmental Organizations

- Stabilization and reestablishment of normal operations at energy facilities is the responsibility of the facility owners and operators.
- Private sector energy asset owners and operators are primarily responsible for the stabilization of infrastructure-related services after an incident occurs.
- For Stafford Act events, ESF #12, through consultation with DOE Headquarters, is the Federal point of contact with the energy industry for information sharing and requests for assistance from private- and public sector energy owners and operators.

Core Capabilities and Actions

As described in the National Response Framework (NRF), responsibility for achieving the objectives of each core capability rests with no single entity or level of government but, rather, is the responsibility of all members of the whole community. The ESF construct is an effective way to bundle and manage the portfolio of resources to deliver core capabilities to local, state, and other responders. ESF #12 is particularly suited to support the Infrastructure Systems, Public and Private Services, and Resources core capabilities.

ESF Role Aligned to Core Capabilities

The following table lists the Response core capabilities that ESF #12 supports, along with the particular ESF #12 actions related to each of these core capabilities. Though not listed in the table, all ESFs support the core capabilities of Planning, Operational Coordination, and Public Information and Warning. **The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.**

Forrest County Emergency Support Function #12 – Energy Annex

Core Capability	ESF #12 - Energy
Infrastructure Systems	• Assists energy asset owners and operators and local, state, tribal, and territorial authorities with requests for emergency response actions as required meeting the Nation’s energy demands. • Identifies supporting resources needed to stabilize and reestablish energy systems. • Assists Federal departments and agencies by locating fuel for transportation, communications, emergency operations, and national Defense, pursuant to the authorities available to the agency providing assistance. • In coordination with the Energy Sector-Specific Agency (DOE), addresses significant disruptions in energy supplies for any reason, whether caused by physical disruption of energy transmission and distribution systems, unexpected operational failure of such systems, acts of terrorism or sabotage, or unusual economic, international, or political events. • In coordination with the Energy Sector-Specific Agency (DOE), addresses the impact that damage to an energy system in one geographic region may have on energy supplies, systems, and components in other regions relying on the same system. • In consultation with energy asset owners and operators and the Energy Sector-Specific Agency (DOE), advises local, state, tribal, territorial, insular area, and Federal authorities on priorities for energy system reestablishment, assistance, and supply during response operations.
Public and Private Services and Resources	• Provides subject-matter expertise to the private sector as requested to assist in stabilization and reestablishment efforts. • Through coordination with DOE, (refer to Primary Agency Functions), serves as a Federal point of contact with the energy industry for information sharing and requests for assistance from private and public sector owners and operators.
Situational Assessment	• Works with the state, the private sector, local, tribal, territorial, and insular area authorities to develop procedures and products that improve situational awareness to effectively respond to a disruption of the energy sector. • Coordinates preliminary damage assessments in the energy sector. • Identifies requirements to repair energy systems and monitors repair work. • Through coordination with the state and local EPAs, ESF #12: ○ Serves as a source for reporting of critical energy infrastructure damage and operating status for the energy systems within an impacted area, as well as on regional and national energy systems. ○ Assesses the energy impacts of the incident and provides analysis of the extent and duration of energy shortfalls. ○ Analyzes and models the potential impacts to the electric power, oil, natural gas, and coal infrastructures, and determines the effect a disruption has on other critical infrastructure.

Forrest County Emergency Support Function #12 – Energy Annex

Linkages between Disaster Response and Recovery

ESF #12 is also closely linked with the Infrastructure Systems Recovery Support Functions (RSF) under the National Disaster Recovery Framework. The Infrastructure Systems RSF may stand up nearly as early as ESF #12, although initially only to focus on planning and information sharing. The ESFs and RSFs will coexist at some point and share information about impacts and assistance provided while focusing on their respective functions. There is necessarily some overlap between ESF and RSF missions, but, as the ESF requirements diminish, the RSFs take over the residual ESF activities that are associated with recovery. The timing of this transition depends on the scope of the disaster and the nature of the activities and tasks involved. From the earliest days after the disaster, ESF #12 will work closely with the Infrastructure Systems RSF Field Coordinator to coordinate the transition from emergency repairs to long-term recovery activities as seamlessly as possible. (See Appendix 2 – Recovery Support Functions Chart)

Policies

- It is recognized that the impact of a major natural disaster or a technological or other man-made event affecting one or more areas of the state could result in an energy emergency when demand for electricity, fuel, or any other material related to energy production exceeds the available supply. The secondary effects of damage to energy systems in the state could render local support systems inoperable for a prolonged period.
- Dispersed and widespread damage from a disaster will hinder restoration of energy-producing facilities, which can directly impact other critical facilities and systems such as transportation, communications, and utility systems. Failure of these systems has a direct effect on a community's ability to recover from a disaster which is why timely restoration of energy supply systems is vital.
- Response actions under ESF #12 are carried out with the purpose of maintaining the integrity of the energy system and minimizing the impact on Forrest County citizens and visitors.
- Each ESF #12 coordinator maintains a list of priority services.

Concept of Operations

Assumptions

- The occurrence of a major disaster could destroy or damage portions of the county energy and utility systems and disrupt petroleum supplies.
- Widespread and possibly prolonged electric power failures could occur in a major disaster.
- The transportation, media and telecommunications infrastructures will be affected.
- Delays in the productions, refining, and delivery of petroleum based products may occur as a result of transportation infrastructure problems and loss of commercial power.
- There may be extensive distribution failure in water, wastewater, and gas utilities. These may take hours, days, or even weeks to repair.
- There may be panic hoarding of fuel in areas served by severed pipelines or by individuals from neighboring jurisdictions where shortages have occurred.

Forrest County Emergency Support Function #12 – Energy Annex

- Natural gas lines may break causing fire, danger of explosion, or health (inhalation) hazards.
- Water pressure may be low, hampering firefighting and impairing sewer system function.
- City and County Public Works departments, under an emergency proclamation, will require the authority to go on private property to evaluate and shut-off utilities that jeopardize public and private property or threaten public health, safety, or the environment.

General

- The Forrest County Emergency Management Agency will keep all responsible ESF #12 agencies informed of all impending conditions (utility outages, weather, or other event) which would cause them to assume a readiness posture in preparation for local EOC activation, possible deployment to a forward area of operation, or other activity.
- The Emergency Management District is the primary local agency designated to coordinate energy emergency response and restoration activities.
- All agencies with ESF #12 responsibilities, whether primary or support, will ensure that they have Standard Operating Procedures (SOPs) in place to enable them to perform appropriate levels of mitigation, preparedness, response and recovery related to the event. Agencies will have completed mitigation and preparedness activities prior to the initiating event, and will begin to perform response and recovery as needed.
- Forrest County Emergency Management will develop and maintain alert and notification procedures for key energy officials supporting ESF #12.
- Emergency Management officials will release through ESF #15 special utility/energy statements. They will also issue conservation bulletins and warnings provided by ESF #12 via the Joint Information Center (JIC).
- The assets (i.e., manpower generator, etc.) available to ESF #12 will be used to assist county emergency operations and other ESFs with their emergency efforts to provide power, fuel and other resources as necessary.
- Emergency ESF #12 personnel will mobilize to direct and coordinate relief efforts, to communicate with the public and appropriate governmental agencies, and to restore normal service.

Organization

County EMA

- Forrest County Emergency Management personnel will notify EMS officials and other support agencies of ESF #12 activation.

Administrative and Logistics

All participating ESF #12 agencies are expected to:

Forrest County Emergency Support Function #12 – Energy Annex

- Coordinate their support with ESF #12.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #12 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #12 agencies understand that their financial management system, automated or otherwise, used to capture their incurred costs during an emergency, major disaster, or exercise must be in compliance with applicable agency, State, and Federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.
- All ESF #12 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

ESF #12 responsibilities, whether primary or support, are expected to:

- Ensure that they have Standard Operating Procedures (SOPs) in place to enable them to perform appropriate levels of mitigation, preparedness, response, and recovery that a given disaster or emergency may require, in accordance with the *Emergency Management Law, MS Code Ann. § 33-15 (1972), Section 33-15-14(2)(a)(viii)*.
- Complete mitigation and preparedness measures prior to an actual emergency or disaster.
- Assign and train personnel to support emergency operations.
- Develop and, where possible, implement standards for physical and operational security for the energy industry in Forrest County.
- Conduct energy emergency exercises with the energy industry.

Pre-Incident

- Ensure current SOPs are available.
- Companies included will designate EOC representatives who will provide information pertaining to the incident.
- Maintain communications with utility companies and other appropriate organizations regarding shortages and outages affecting the public.
- Each company's ESF representative will work in conjunction with Forrest County Emergency Management and other local agencies in an emergency capacity if needed.

Incident

- Upon activation of ESF #12, ESF representatives will communicate this information to all other ESF #12 members.
- Ensure adequate communications are established and maintained.
- Obtain an initial situation and damage assessment through established intelligence procedures.
- Coordinate the distribution of assets as needed.
- Maintain a complete log of actions taken, resource orders, records, and reports.
- Assist in gathering and providing information for establishing priorities.

Recovery

- Continue to monitor the recovery process.
- Secure resources to repair damaged energy systems.
- Review recovery actions and develop strategies for meeting county energy needs

Post-Incident

- Prepare an after-action report (AAR). The AAR identifies key problems, indicates how they will be or were solved, and makes recommendations for improving ESF response operations. All ESF #12 organizations assist in preparation of the AAR.

Forrest County Emergency Support Function #12 – Energy Annex

Responsibilities

Mississippi Power, South MS Electric, Southern Pine, Pearl River Valley, Dixie Electric, Wilmut Gas, Center Point Energy, Blossman Propane, and PDMA facilities

- Develop an SOP and checklist in conjunction with Forrest County Emergency Management and supporting agencies for this ESF.
- Staff the county EOC for coordinating local energy emergency support if needed and available.
- Provide technical assistance to utility advisory committees.
- Work closely with local/private energy/utility companies to coordinate response and assess damage.
- Support impact assessment by providing personnel for the damage assessment.
- Assist with debris removal following all line restoration.

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Forrest County Emergency Support Function #12 – Energy Annex

Support Agencies Responsibilities

Agency	Functions
Forrest County Emergency Management	• Coordinate with (insert facilities here), and other agencies to identify local energy resources. • Report to the Board of Supervisors on current and continuing functions, problems, and activities concerning energy resources. • Provide standard generator request forms that will be used at the EOC to process all local government generator requests. • Assess availability of energy resources (petroleum, liquid petroleum, natural gas, and/or electrical power) and the demand for those resources by district. • Implement energy emergency procedures necessary to reduce the demand for energy (primarily motor fuels). • Assist in locating shelters/housing units for utility work crews.
All Utility Companies	• Responsible for restoration of utilities following a disaster. • Restore service to critical facilities first.
Local Public Works	• Provide generators to critical facilities and crucial utilities until services are restored.
Mississippi Military Department (MMD)	• Provide generators to critical facilities and crucial utilities until services are restored according to ESF #13, Military Support as requested by the SEOC. • Provide technicians and operators for generators as available.

ESF #12 Reviews and Maintenance

Forrest County utility companies and The Emergency Management District will coordinate an annual review of this ESF #12 with all support agencies. Additional review may be conducted based on incident experience or changing laws and regulations. Recommendations for change will be submitted through Forrest County Emergency Management for approval, publication, and distribution.

Appendices

Appendix 1 - Public Utilities

Appendix 2 – Recovery Support Functions Chart

Appendix 1

Public Utilities

ATTACHMENT 2

PUBLIC UTILITIES

ELECTRIC POWER COMPANIES

Mississippi Power Company
Service Center
2601 Hwy 11 – Bypass
Hattiesburg, MS 39401

South Mississippi Electric Power Association
7037 US Hwy 49
Hattiesburg, MS 39402

Southern Pine Electric Power
Home Office: 110 Risher St – Taylorsville, MS 39168
Hattiesburg Branch: Hwy 49 North, HBG 39402

Pearl River Valley Electric
Home Office: 1422 Hwy 13 – Columbia, MS 39429

Dixie Electric Power Association
Home Office: 1863 Hwy 184 – Laurel, MS 39443
Petal Branch: Hwy 42 East – Petal, MS 39465

L-P NATURAL GAS

Willmut Gas Company
315 South Main St
Hattiesburg, MS 39403

Center Point Energy-Entex
Dist Office: 26 Mason St – Laurel, MS

GAS COMPANIES

Unified CPC
1374 US Hwy 11
Petal, Ms 39465

Dixie Pipeline
Po Box 544
Hwy 11
Petal, Ms 39465

Embridge
Po Box 1184
Hwy 11
Petal, Ms 39465

Enterprise Petal NGL
1265 Hwy 11
Petal, Ms 39465

Boardwalk
Po Box 1183
1382 Hwy 11
Petal, Ms 39465

Enterprise Products
Po Box 506
1364 Hwy 11
Petal, Ms 39465

Lone Star
Po Box 545
1234 Hwy 11
Petal, Ms 39465

Targa
Po Box 587
18 Chappel Hill Rd (off of Hwy 11)
Petal, Ms

BUTANE GAS

Blossman Propane Gas
Hwy 42
Hattiesburg, MS 39401

ESF #12-7

PUBLIC WATER SYSTEMS

City of Hattiesburg Water
PO Box 1898
Hattiesburg, MS 39403-1898

City of Petal Water
127 West 8th Ave
Hattiesburg, MS 39465

RURAL WATER ASSOCIATIONS

Dixie Water
930 Bonhomie Rd
Hattiesburg, Ms 39401

Eastabuchie Water
Po Box 924
795 Leeville Rd
Petal, Ms 30465

Brooklyn Water
Po Box 69
Brooklyn, Ms 39425

Glendale Utility
2805 Glendale Ave
Hattiesburg, Ms 39401

McLaurin Utility
283 Carter Rd
Hattiesburg, Ms 39401

Rawls Springs Utility
39 Archie Smith Rd
Hattiesburg, Ms 39402

Sunrise Water Utility
465 Batson Rd
Petal, Ms 39465

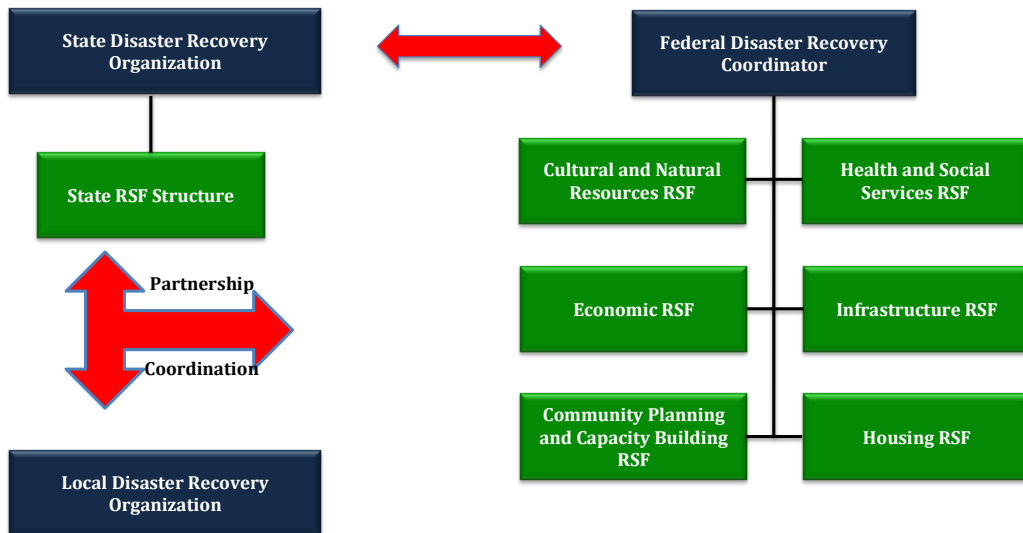
Carnes Utility
1084 Carnes Rd
Wiggins, Ms 39577

Barrontown Utility
101 Dogwood Lane
Petal, Ms 39465

Appendix 2

Recovery Support Functions Chart

National Disaster Recovery Framework
Recovery Support Functions (RSFs) Coordinating Structure



Forrest County Emergency Support Function #13 – Public Safety and Security Annex

ESF #13 Coordinator:

Forrest County Sheriff's Office
Hattiesburg Police Department
Petal Police Department

Primary Agencies:

Forrest County Sheriff's Department
Hattiesburg Police Department
Petal Police Department

Support Agencies:

Forrest County Emergency Management
Forrest General Hospital Public Safety
Southern Miss Police Department
School System Police Departments
Mississippi Highway Safety Patrol
Other county agencies as determined to be necessary

State ESF Coordinator:

Mississippi Department of Public Safety

State Primary Agencies:

Mississippi Department of Public Safety
Mississippi Department of Transportation
Mississippi Military Department
Mississippi Department of Wildlife, Fisheries, and Parks (MDWF&P)
Mississippi Emergency Management Agency (MEMA)
Mississippi National Guard
Alcohol, Tobacco, and Firearms (ATF)

State Support Agencies:

Mississippi Emergency Management Agency
Mississippi Highway Patrol
Mississippi Department of Wildlife, Fisheries, and Parks (MDWF&P)
Mississippi National Guard
Alcohol, Tobacco, and Firearms (ATF)

Introduction

Purpose

The primary purpose of Emergency Support Function (ESF) #13 Public Safety and Security is to coordinate law enforcement activities within Forrest County in order to ensure the safety of life and property during and after an emergency situation or incident. ESF #13 integrates Forrest County's safety and security capabilities and resources in order to support a full range of incident management activities associated with potential or actual emergencies or incident.

Scope

Forrest County Emergency operations for law enforcement agencies will be an expansion of their normal daily duties and responsibilities. These duties and responsibilities include maintaining law and order, traffic control, crowd control and security control measures. Local agencies will have the primary responsibility for routine law enforcement and support groups will assist when and where needed.

Relationship to Whole Community

Local, State, Tribal, and Area Governments

Local law enforcement responsibility and authority rests with local, state, tribal and area law enforcement departments and agencies. During disasters or acts of terrorism, when these departments and agencies are overwhelmed and unable to fulfill their public safety and security missions, additional resources should be obtained through mutual aid and assistance agreements, such as the Emergency Management

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Assistance Compact, and/or activation of the state National Guard. Once these means of support are exhausted or unavailable, Federal public safety and security needs can be requested through ESF #13.

In a catastrophic incident, a state governor may also choose other options to restore order and ensure public safety. These may include:

- Requests for Federal law enforcement assistance under the Emergency Federal Law Enforcement Assistance Act coordinated through the Attorney General (AG) or the AG's designee
- Members of the National Guard under state control to the extent permitted by state law.

Private Sector/Nongovernmental Organizations

Safety and security responsibilities performed by private sector and nongovernmental organizations are generally limited to requirements at specific locations, such as shopping centers, private sector buildings, locations that house critical infrastructure, special events, and, when contracted, local, state, tribal, territorial, insular area, and Federal buildings. However, overall public safety and security responsibility always defaults to local, state, tribal and territorial area, and Federal law enforcement departments and agencies.

During the response to disasters or acts of terrorism, private sector/nongovernmental security forces continue to perform their assigned safety and security missions to the best of their ability. The local, state, tribal, or area law enforcement department or agency responsible for public safety and security will determine the need for law enforcement resources to assist or augment these private sector/nongovernmental organizations. Should the responsible local, state, tribal, or area law enforcement department or agency be overwhelmed and unable to provide the needed assistance, upon a request for Federal assistance, ESF #13 may be tasked to provide this support through the DHS/FEMA mission assignment process.

Traditionally the vast majority of ESF #13 missions require sworn law enforcement officers armed and trained in the execution of a wide range of law enforcement activities. However, based on the requirements of specific missions, ESF #13 may use non-traditional resources from private sector and/or nongovernmental organizations to meet the requirements of the missions.

These resources may be in the form of individuals and/or organizations with specific skills or capabilities that are trained, capable, and willing to assist ESF #13 as volunteers or contracted support. The specific skills or capabilities of these individuals or groups must match the requirements of the mission. The identification of these private sector/ nongovernmental individuals and organizations will be closely coordinated by the ESF #13.

Any use of these resources to meet ESF #13 mission assignments will be closely coordinated with the requesting entity before these resources are assigned to fulfill the mission.

Core Capabilities and Actions

The following table lists the Response core capabilities that ESF #13 most directly supports along with the related ESF #13 actions. Though not listed in the table, all ESFs, including ESF #13, support the core capabilities of Planning, Operational Coordination, and Public Information and Warning. **The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.**

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ESF Roles Aligned to Core Capabilities

Core Capability	ESF #13 – Public Safety and Security
On-scene Security and Protection	• Provide general and specialized Federal law enforcement resources to support local, state, tribal, area, and Federal law enforcement departments and agencies overwhelmed by disasters or acts of terrorism. ESF #13 can perform a wide array of missions as defined through the state mission assignment process. • Protect critical infrastructure during prevention activities or disaster response, when requested. • Protect emergency responders. • Determine the role, if any, of private sector/nongovernmental organizations in the overall public safety and security response. • Assist state law enforcement and government officials in determining the methodology by which FLEOs will be granted state law enforcement authority during ESF #13 responses. • Manage the development of pre-scripted mission assignments to address known and anticipated disaster response public safety and security short falls. • Give priority to life safety missions first, followed by missions that address security and the protection of infrastructure/property. • Consider the availability of safety and security resources within the requesting federal department or agency when providing ESF #13 support to other federal ESFs.

Policies

Local law enforcement personnel will generally be able to provide adequate police control through existing mutual-aid agreements with communities within the county and/or neighboring counties. If local capabilities are exceeded, support will be available from several state and federal law enforcement agencies. This ESF provides the conduit for utilizing and incorporating the extensive network of public safety and security coordination established for county prevention efforts.

- All requests for state and/or federal law enforcement augmentation should be made by the Forrest County Emergency Management Director to MEMA.
- Operations to support and protect federal facilities/assets within Forrest County must be coordinated in collaboration with the Forrest County Sheriff's Office through the Forrest County EMA Director to MEMA.
- All primary and support agencies shall be utilized before requests are made for additional resources and/or assets.
- All available local resources will be expended before requesting state support.
- This ESF does not usurp or override the policies or mutual aid agreements of any county or municipal jurisdiction or government, state government, or federal agency. Law enforcement activities and

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criminal investigations are conducted in conformance with existing codes and statutes.

- Law enforcement officials will carry out functions that they are trained to do, some of which may not apply on a regular basis.
- If sufficiently trained law enforcement is not available from local government, public or private sources within the community will be sought. These sources include auxiliary and reserve elements, MSNG, retired and/or veterans' groups, industrial security personnel, private security firms, or other qualified personnel as available through MDPS ECO.

Concept of Operations

Assumptions

- General law enforcement problems are compounded by disaster related community disruption, restriction of movement, impacted communications and facilities, and a shortage of law-enforcement resources.
- The capabilities of local law enforcement agencies may be quickly exceeded. Supplemental assistance should be requested through local and state emergency management channels and the operation of mutual aid agreements.
- The availability of resources will have a profound effect on agencies ability to perform tasked activities.

General

The Sheriff or Police Chief is responsible for law enforcement activities within their jurisdiction. Only when all local resources are exhausted will state law enforcement personnel and equipment be requested. Upon determination by local authorities of a need for additional law enforcement, a request for assistance will be made to the Forrest County Emergency Management Agency to MEMA. Forrest County Emergency Management will also keep all responsible agencies and/or departments informed of all conditions, which would cause them to assume a readiness posture in preparation for EOC activation, evacuation, or other activities. Law Enforcement personnel will keep continuous communications with Emergency Management Officials throughout the event, to ensure the allocation of needed resources from other agencies with capabilities to assist in the recovery process.

Organization

- On-scene Public Safety & Security Operations should be organized using the Incident Command System and remain under the tactical control of the lead law enforcement agency having jurisdiction.
- ESF #13 support to on-scene operations, if needed, will likely take place through the County Emergency Operations Center (EOC). ESF #13 Agency Reps in the EOC should be organized under the ICS Operations Section as either a stand-alone "Team" or as part of a functional Group, depending upon the needs of the incident.

Administrative and Logistical Support

All participating ESF #13 agencies are expected to:

- Coordinate their support with ESF #13.

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- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #13 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #13 agencies understand that their financial management system, automated or otherwise, used to capture their incurred costs during an emergency, major disaster, or exercise must be in compliance with applicable agency, State, and Federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.
- All ESF #13 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

Forrest County Sheriff's Office in collaboration with the Forrest County Emergency Management Agency shall conduct the following:

- Development and maintenance of SOPs to enable them to perform appropriate levels of mitigation, preparedness, response, and recovery related to public safety and security.
- Train and exercise Forrest County ESF #13 personnel.
- Designates an EOC, alternate EOC, and an ESF #13 liaison that will go to the Forrest County EOC or other areas of operation.

Pre-Incident

Forrest County's Chief Law Enforcement Officer will conduct the following actions in collaboration with the Forrest County Emergency Management Director:

- This ESF will provide expertise and coordination for security planning efforts and conducting technical assessments.

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- ESF #13 will identify the need for ESF #13 support and analyze potential factors that affect resources and actions needed, such as:
 - Mapping, modeling, and forecasting for crowd size, impact of weather, and other conditions on security.
 - ESF #13 liaison with Forrest County Emergency Management Agency.

Incident

Upon activation of ESF #13, the Forrest County Senior Law Enforcement Officer (Sheriff's Office or designee) and the ECO will:

- Maintain law and order.
- Communicate information to all other ESF #13 members and ensure that adequate communication is established and maintained.
- Obtain an initial situation and damage assessment through established intelligence procedures.
- Patrol evacuated areas and routes.
- Provide traffic and crowd control.
- Provide or coordinate specialized security assets such as traffic barriers, and/or law enforcement personal protective gear.
- All other duties as identified by Forrest County Emergency Management Agency to help preserve life and property.

Recovery

- Continue response operations.
- Assist in damage assessment.
- Maintain law enforcement activities in affected area(s) as long as required by local officials to return the situation to a state of normalcy.
- Phase down operations.
- Coordinate with the Forrest County elected officials and EMA to determine the time schedule for re-entry as an incident dictates.

Post-Incident

- Continuously review and update plans.
- Analyze hazards and determine additional law enforcement requirements.
- Identify critical sites that will require special security during an emergency or incidents.

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- Prepare an after-action report. The after-action report should identify key problems, indicate how they are to be/were solved, and make recommendations for improving ESF #13 response operations.

Responsibilities

The Forrest County Sheriff's Office is responsible for coordinating all emergency law enforcement activities within Forrest County. Each local and/or municipal police force will maintain authority within its own jurisdiction. The Forrest County Sheriff will appoint a liaison to the Forrest County EOC, that liaison will direct all emergency operations from the EOC. Routine operations will be handled by standard procedures and State and Federal support will be called upon as needed.

The Mississippi Military Department (MMD) will maintain a liaison in the Forrest County Emergency Operations Center (EOC) to provide direct coordination with Local Emergency Management for mission assignments.

Local Mississippi National Guard units may be required to directly support local officials with operational response consistent with current mission assignments. ***This request must be made through the Forrest County EMA Director to MEMA and/or to the Mississippi Military Department.***

Support Agencies Responsibilities

Agency	Functions
Forrest County Emergency Management	• Responsible for contacting the Mississippi Emergency Management Agency if additional support is needed and/or requested. • Provide necessary updates to SEOC for all ESF#13 actions.
Mississippi Emergency Management Agency (MEMA)	• Receive, confirm, evaluate, and prioritize requests for all state resources for ESF #13. • Allocate appropriate resources, authorize mission assignments; and submit request to FEMA for any federal resources required.
City of Hattiesburg and Petal Police Department's	• Maintain law and order within their jurisdiction. • Support Sheriff's Office and perform all task assignments. • Provide mobile units for warning operations (ESF #2). • Provide security for key facilities, traffic control points, crowd control • Support for other public safety activities.
Mississippi Highway Patrol	• Provide traffic control on state roads. • Perform law enforcement activities in support of incidents. • Provide support to local operations as needed.
Mississippi Department of Wildlife, Fisheries, and Parks (MDWF&P)	• Patrol local waters and perform normal law enforcement activities. • Provide support for local operations as needed. • Supply resources and personnel as needed, especially (i.e. boats, MS IMAT) to support water related emergencies.
Mississippi National Guard	• Provide Military Police support for local operation with state approval.
Alcohol, Tobacco, and Firearms (ATF)	• Upon official request, provide manpower and equipment to assist with local disaster operations.
Other county agencies as determined to be necessary	• Provide support for this activity as needed to assist the Forrest County Sheriff's Office and/or the Forrest County Emergency Management Agency.

ESF # 13 Review and Maintenance

Forrest County Emergency Management will coordinate the biennial revision of this ESF with the Coordinator. The Coordinator will be responsible for obtaining input from the Primary and all Support Agencies. Other unscheduled reviews and revisions may be made after implementation of the plan or because of changes in laws or regulations. Recommendations for changes will be submitted to Emergency Management for approval, publication, and distribution.

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ESF #14 Coordinator(s)

Forrest County Board of Supervisors
Hattiesburg Mayor's Office
Petal Mayor's Office
Forrest County Emergency Management Agency

Mississippi Non-governmental Organizations

American Red Cross
Mississippi Volunteer Agencies Active in Disasters (VOAD)
The Greater Pinebelt Foundation

Primary Agencies

Forrest County Emergency Management Agency
Forrest County Board of Supervisors
Office of the Mayor (Hattiesburg & Petal)
Forrest County Attorney
R3SM-Long Term Recovery (United Way)

State ESF Coordinator

Office of the Governor
Mississippi Emergency Management Agency

Support Agencies

MDH Mental Health/Region XII
Forrest County Road Department
Forrest County Fire Coordinator
Hattiesburg and Petal Public Works
Forrest County Human Services

State Primary Agencies

Mississippi Attorney General's Office
Mississippi Employment Security
Mississippi Department of Human Services
Mississippi Department of Agriculture and Commerce
Mississippi Department of Mental Health
All Other County Agencies

Introduction

Purpose

This document serves, as the framework to ensure that the citizens of Forrest County affected by an incident or disaster will be able to recover utilizing federal and state resources.

Scope

The policies and concepts of this annex apply to the use of Forrest County resources needed to assist in the restoration of communities within the county affected. Additionally after an assessment of the incident's impact the request for state and federal resources needed will be made through the county EMA director to MEMA on behalf of the citizens of Forrest County and all of its municipalities.

Relationship to the Whole Community

Individual/Community Organizations

The public, both individuals and community organizations, have an important role in assisting with long-term care and recovery for citizens affected by or displaced during a disaster.

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Local, State, Tribal and Area Governments

Long-term care providers use an inclusive process to ensure coordination with local and State agencies to identify priorities for the application of resources. In engaging with disaster-affected communities, EFS #14 seeks to specifically include and address the needs of individuals with disabilities, those with access and functional needs, children, seniors, individuals with limited English proficiency and members of underserved populations, and works closely with local, State and Tribal governments to identify underserved populations. ESF #14 and cooperating agencies also coordinate with local nongovernmental organizations (NGOs) and community groups which often have excellent relationships with the underserved populations. ESF #14 collaborates with these organizations to ensure that programs are culturally appropriate and that at-risk populations and their needs are identified.

Private-Sector/Nongovernmental Organizations

ESF #14 coordinators and support agencies recognize the private sector as a key partner in domestic incident management, particularly in the area of critical infrastructure protection and restoration. Private-sector entities are also called upon to contribute necessary items and services to the impacted area. These sources are important to aid in the life-saving and recovery efforts. Forrest County and other partnering agencies coordinate with the private sector to effectively share information, formulate courses of action, and incorporate available resources to prevent, prepare for, respond to, and recover from incidents of various types.

Core Capabilities and Actions

ESF Role Aligned to Core Capabilities

The following tables list the Response core capabilities that ESF #14 most directly supports along with the particular ESF #14 actions related to that core capability. Though not listed in the table, all ESFs support the core capabilities of Operational Coordination and Public Information and Warning. **The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.**

Core Capabilities	ESF #14 – Long-Term Recovery
Planning	• Coordinates developments of the State’s Public Assistance and Hazard Mitigation plans. • Coordinates development of ESF #14 • Collaborates with key governmental officials at the state, county, and local level, and critical public sector partners. • Conducts a systematic process, engaging the whole community as appropriate, in the development of executable strategic, operational, and/or community- based approaches to meet defined objectives.
Infrastructure Systems	• Assists local governments impacted by a disaster in rebuilding and/or repair efforts. • Assists local governments through Public Assistance and Mitigation grants to ensure accurate disaster funding is available, and that all state and federal guidelines are followed. • Implements housing solutions that effectively support the needs of the

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	whole community and contribute to its sustainability and resilience.
Economic Recovery	• Gathers information from state and federal agencies and impacted local governments to assess the scope and magnitude of the social and economic impacts. • Works with private sector to help coordinate business recovery and development in impacted areas. • Identify statutory, regulatory and policy issues that contribute to gaps, inconsistencies and unmet needs in economic recovery. • Develops solutions to address preparedness, mitigation and resilience issues before a disaster strikes and that will facilitate the return of economic and business activities (including agricultural) to a normal state.
Health and Social Services	• Coordinates through Forrest County Department of Human Services, all requests for emergency food stamp assistance or other social services. • Assists through MDHS, volunteer organizations, and Mississippi Department of Health (MSDH) with long-term housing, feeding requirements, and emergency services. • Coordinates through Mississippi Department of Employment Security, unemployment grant programs for affected communities. • Provides a system for victims to received prescribed medications while displaced. • Works with regional Mental Health Agencies to provide Mental Health care to displaced disaster victims. • Provides up-to-date health and safety for disaster victims and those serving them.
Housing	• Works with federal agencies and Mississippi Development Authority (MDA) to develop long-term housing needs and assistance. • Assists local governments and other ESF #14 stakeholders in developing long- term housing plans for impacted communities. • Provides access to SBA for victims to seek loans to repair damaged homes. • Makes available federal government monies for minor repairs to homes (\$1,500 maximum). • Collaborates with local authorities in public education to ensure children of disaster victims may continue to attend school while displaced.

Policies

- County agencies continue to provide recovery assistance to county and municipal government, the private sector and individuals while continuing activities and assessments for additional resources through the ESF #14 coordinator (Forrest County EMA).
- State support to Forrest County will be tailored based on the type, extent, and duration of the event and long-term recovery period, and on the availability of State resources.

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- Long-term community recovery and mitigation efforts are forward-looking and market-based, focusing on permanent restoration of infrastructure, housing, and the local economy, with attention to mitigation of future similar impacts when feasible.
 - Forrest County will use the post-incident environment as an opportunity to measure the effectiveness of community recovery activities.
 - ESF #14 will facilitate the application of loss-reduction building science expertise to the rebuilding for critical infrastructure (e.g. in repairing hospitals, key county facilities).
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Concept of Operations

Assumptions

- All appropriate disaster declarations will be made in a timely manner.
- Given Forrest County's limited resources to accomplish recovery operations, the state and federal governments will play a major role, substantially supplementing the county efforts.
- Depending on the type and scope of the incident, federal resources and/or funds may be available for public and/or private (individual and businesses) assistance.
- There may be long-term shelter requirements to house county citizens and other populations following a disaster situation.
- A *long-term recovery plan* will be developed based on the impacts of the specific disaster or emergency, the duties and responsibilities outlined in the other functional annexes and hazard specific appendixes to this plan, and the planning considerations addressed in this annex.
- Long-term recovery planning and activities could include mitigation efforts to reduce the potential hazard of similar disasters in the future.
- Many types of public, private, and volunteer assistance will be offered following an extreme emergency that will involve unique management challenges and further test county sheltering and feeding capacities.
- Depending on the incident, it may be more appropriate for some recovery functions to be tasked to a specific county department rather than an EOC section. Specially qualified persons/agencies from the public and private sectors may be appointed to perform functions unique to large-scale recovery operations.
- Under certain conditions, such as a lengthy recovery from a flood or tornado, Forrest County will seek inclusion in a Presidential Declaration so to qualify for assistance in the form of federal emergency funds and equipment, if qualified.

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General

ESF #14 provides the coordination mechanisms for local government to:

- Immediately after any emergency/disaster, response activities to save lives and protect property should have the highest priority. However, recovery activities can be conducted concurrently with response and should commence as soon as possible. Gradually, as the requirement for emergency response diminishes, the need for recovery activities should become the focal point.
- Recovery and restoration actions following any emergency or disaster should be determined by the specific event. Recovery plans are based on the damage assessment; an awareness of what shape the recovery should take in the rebuilding of infrastructure, the environment and the economy; and the resources available for that rebuilding. Several federal, state, and local jurisdictions may be involved depending on the hazard and scope of the situation. City and County local governments should lead the recovery activities for their jurisdictions.
- The recovery process can be split into long-term and short term activities, but some activities can occur in both. Also, there is no clear distinction of when short-term recovery activities end and long-term begins.
 - Short-term recovery efforts typically focus on restarting critical community elements such as utility, economic, and social systems in order to meet people's immediate needs.
 - Long-term recovery efforts include resumption of full services; large-scale repair and replacement work; economic and resource re-stabilization; organizations' re-adaptation; and assessment of the event. Hazard mitigation is often part of the long-term recovery effort. Hazard mitigation actions are those taken to permanently eliminate or reduce the long-term vulnerability to human life and property from hazards. Long-term recovery may go on for years until the entire disaster area is completely redeveloped, either as it was before the disaster or for entirely new purposes.
- Recovery activities may continue long after the EOC has been closed, requiring the activities to be coordinated and managed from a different location.
- The responsibility for coordination of disaster recovery efforts in Forrest County rests primarily with County EMA. Responsibility for making local policy decision remains with the local elected officials. Responsibility for actions of local, state, federal, and volunteer personnel remains with those organizations.
- During major events, the Emergency Operations Center (EOC) will likely have been activated for the response and short term recovery phases of the emergency and should continue to be used for transition into longer-term recovery activities. Ongoing activities related to the implementation of ESF #14 may be coordinated from other locations.
- Assess the social and economic consequences in the impacted area and coordinate state efforts to address long-term community recovery issues resulting from an Incident of State Significance
- Advise on the long-term recovery implications of response activities and coordinate the transition from response to recovery within the county

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- Work within the county to ensure that all municipal governments, NGOs, and private-sector organizations to conduct a comprehensive market disruption and loss analysis and collaborate efforts to develop a comprehensive long-term recovery plan for all affected communities within the county.

Recovery Functions

The following functions should be addressed as part of the recovery process and assigned to the appropriate ICS Section.

- Animal Control/Sheltering: Provides policies and procedures/guidelines addressing animal control and sheltering following a disaster. Includes sheltering, feeding, and release of pets, livestock and wild animals.
- Business Resumption: Provides policies and procedures/guidelines to facilitate the re-establishment of normal commercial business activities following a disaster. Includes policies/procedures/guidelines for deferral of taxes and fees, availability and use of grants, disaster assistance applications and relocation guidance.
- Communications/Automation: Provides the communications and automated data processing abilities for direction and control of recovery activities as well as for continued daily operations. This includes identifying actions to protect current resources, procedures/guidelines for prioritizing and sharing limited resources, and identifying additional resources for procurement. Communications/Automation resources include, but are not limited to county/city and amateur radio equipment and operations, facsimile machines, telephones, cellular phones, copiers and computers.
- Continuity Of Government: Provides for the preservation, maintenance, and/or reconstitution of the government's ability to carry out its executive, legislative, and judicial processes. Includes preservation of lawful leadership and authority, prevention of unlawful assumption of authority, and prioritization and maintenance of essential services.
- Damage Assessment: Ensures that procedures/guidelines and expertise are available to assess the safety and serviceability of essential government facilities (e.g., EOCs, shelters, hospitals, police and fire stations, schools, highways, bridges, airports, public works etc.), commercial buildings and residential occupancies. Establishes building/ structure accessibility/usability. Damage Assessment should begin as the event is occurring and afterwards, until the full scope of the damage is known.
- Debris Management: Provides for the removal, temporary storage, and disposal of disaster-related debris including hazardous and other contaminated materials. Coordinates with waste haulers, transfer stations, landfill sites and other disposal facilities.
- Demolition: Ensures that appropriate policies, agreements, and procedures/guidelines are in place to facilitate the demolition of public and private structures considered unsafe for habitation or declared an imminent hazard.
- Disaster Assistance: Provides policies and procedures/guidelines for, and information concerning, federal, state, local, private and non-profit disaster assistance programs.

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- **Documentation & Record Keeping:** The scope of an extreme emergency calls for deliberate and comprehensive administrative controls. Eligibility for federal assistance is dependent on accurate documentation. Proper documentation with regard to such things as Damage Assessment, Grant Applications, and Costs must be provided to the appropriate entities. Records should be maintained on all aspects of the recovery effort. Figures and facts should be as accurate as possible and will support post-recovery audits. Original copies of records and reports should be retained in Forrest County; only copies should be sent forward to State and Federal agencies. Verification of claims is enhanced by photographic evidence and by individual identity verification using driver's licenses. Individual identity verification is of particular importance for disposition of food stamps, other benefits, and to control reentry operations.
- **Donations Management:** Provides for coordination of donations to disaster victims, including informing the general public, through the PIO, of specific items needed. Works with businesses, private non-profit organizations, churches, and private citizens to manage receipt, sorting, transport, and delivery of donated goods and services.
- **Engineering/Construction:** Provides technical advice and evaluations, engineering services, construction management and inspection and contracting services during the disaster recovery period.
- **Environmental Services:** Provides environmentally based, technical information and support for management of recovery activities. Includes assistance and advice on air quality, soil conditions, natural resources, weather, river levels, and advice on solid waste disposal and environmental permitting.
- **Fatality Management:** Some disasters may produce mass fatalities, which require a significant amount of management and resources. The County Coroner's Office is the lead agency for the collection, storage, and disposition of all human remains and their personal effects.
- **Financial Management:** Provides guidance and procedures/guidelines for disaster cost documentation and contingency funding for recovery activities including restoration of government services. Items of concern may include paying bills, meeting payrolls, and maintaining or establishing contractual relationships. Also assesses disaster impacts on municipal bonds and insurance, examines taxation issues such as property reassessment and coordination of cost recovery activities including grant applications for governmental entities.
- **Human Resource Management:** Provides for coordination of human resource support during disaster recovery activities. Includes assistance with staffing of the EOC and other coordination centers (e.g. phone banks.), coordination of county volunteers (including multi-lingual services), continuation of employee assistance and family contact/support programs and employee education regarding disaster reimbursement policies.
- **Individual Assistance:** Forrest County may assist State and Federal officials in the establishment of Disaster Recovery Centers (DRC). Such centers are the focal point for making federal assistance available to qualified individuals, families, and businesses. Assistance for qualifying individuals and families is provided through the Individual & Family Grant Program (IFGP); businesses may qualify for emergency funds from the Small Business Administration (SBA).

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- Infrastructure Management:
 - Repair / Restoration: Prioritizes essential public facilities and provides for coordination of personnel and resources necessary to make temporary or permanent repairs to them.
 - Relocation: Includes locating and leasing temporary office and storage space and the retrieval of needed resources from damaged buildings.
- Legal Program Management: Ensures all of the county's criminal and legal obligations are met. Provides legal guidance and assistance for disaster recovery activities. Includes assistance with preparation of disaster related declarations, rendering opinions regarding planned/proposed actions, and interpreting regulatory actions of other jurisdictions (e.g. state or federal).
- Mental Health/Counseling: Provides for social and psychological counseling for disaster victims, emergency service workers, and disaster recovery workers.
- Preservation of Records: Provides guidance, information and procedures/guidelines for the salvaging of damaged vital records and documents as well as the restoration of information and record systems.
- Public Assistance: Restoring damaged public property, and property owned by certain non-profit organizations, is within the scope of Public Assistance. When approved at the Federal level, such assistance can offset 75 percent of the cost of repair or replacement of a damaged facility or infrastructure asset, such as a road, bridge or sewer line. The State and local jurisdictions must provide the funds for the remaining 25 percent. After a "Presidential Declaration", disaster reports required to support receipt of Federal emergency funds are developed and provided to the State by survey teams comprised of: a Federal representative, a State representative, and a local representative. These disaster reports are forwarded by the State to FEMA.
- Public Information: Provides channels for educating the public on actions to take during the recovery period. Collects, controls, and disseminates public safety, public service and general assistance information. Minimizes the impact of misinformation, rumors, etc. Organizes "Town Hall" meetings. Coordinates within own agency staff, other agencies, the EOC, public information phone centers, and the media.
- Recovery Management: Provides for overall management of recovery activities. Develops strategic goals and policy directives to guide both short and long-term recovery. Keeps elected officials informed of the situation and provides advice on required decisions and appropriate actions. Ensures accurate public information is disseminated. Provides for the safety and welfare of the public and recovery personnel.
- Resource Management: Provides for coordination of the materials, personnel, equipment and facilities for disaster recovery activities.
- Rezoning and Land Use: Ensures ordinances, policies, and procedures/guidelines are in place to allow expeditious zoning and land use decisions following a disaster. Includes procedures/guidelines for building moratoria, fast track permitting, permit restrictions, fee waivers and coordination, and oversight of repairs to historic buildings.

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- Temporary and Long-Term Housing: Provides for relocation of citizens displaced by a disaster and ensures that housing is available throughout the recovery period.
 - Emergency housing: (Response) the housing of displaced persons for a short period of time.
 - Temporary housing: Refers to temporary quarters for displaced people to live until permanent housing can be found for them.
 - Long-term housing: permanent replacement housing.
- Transportation: Provides transportation (road, rail, water, and air) for personnel, equipment, and supplies to perform disaster recovery activities. Includes maintenance and repair of transport vehicles. Also provides for public transport for dislocated citizens and for coordination of public transportation systems during recovery activities.
- Utilities: Provides for the facilitation and coordination of efforts to fully restore utility services following a disaster. Includes phone, power, water, cable, and sanitation.
- Volunteer Coordination: Provides for recruitment, training, registration, certification, assignment, and recognition of volunteers.

Organization

Mutual Aid Agreements

The Forrest County Emergency Management Agency will initiate mutual aid agreements upon request from municipal government(s) within the county to ensure request for assistance as dictated by the incident or disaster.

Statewide Mutual Aid Compact (SMAC)

County agencies or local government within Forrest County may request assistance after all resources locally have been depleted, through the Forrest County Emergency Management Director for the implementation of the SMAC.

Local Field Units/Teams

Based on the incident within the county, field units or local teams from key state agencies could be deployed to address unmet needs. These teams would coordinate their efforts through the Forrest County Emergency Manager. Personnel assigned key responsibilities for ESF #14 would include but not be limited to:

- MEMA - Assign a Public Assistance staff person to provide liaison between state and county/local governments.
- MDH - Mississippi Department of Health District staff to assist with health issues as a result of widespread health concerns caused by the incident or disaster.

Forrest County Emergency Support Function #14 – Long Term Recovery Annex

- MDA - Mississippi Development Authority/Community Involvement Division would provide field teams to assist in Forrest County with long-term rebuild/recovery projects under the CDBG grant program.
- MDHS - Mississippi Department of Human Services would provide field teams to ensure all human services program under long-term recovery efforts are addressed as dictated by the incident (i.e. replacement benefits, disaster food stamps).
- MDES - Mississippi Department of Employment Security would assist all displaced persons in affected areas with emergency unemployment benefits through mobilization of field teams.
- MDMH - Mississippi Department of Mental Health would provide continuous crisis counseling teams through federal crisis grant to assist with long-term mental health needs.

Emergency Management Assistance Compact (EMAC)

Should the requirement for additional assistance exceed the availability of resources within the State, Forrest County EMA Director through MEMA could receive assistance from outside the state to assist in the recovery process, as Mississippi is a member state of EMAC.

Administrative and Logistical Support

All participating ESF #14 agencies are expected to:

- Coordinate their support with ESF #14.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #14 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #14 agencies understand that their financial management system, automated or otherwise, used to capture their incurred costs during an emergency, major disaster, or exercise must be in compliance with applicable agency, State, and Federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.
- All ESF #14 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Forrest County Emergency Support Function #14 – Long Term Recovery Annex

Preparedness

- Forrest County Emergency Manager should ensure that all county agencies with responsibility under ESF #14 fully understand their requirements to assist in the long-term recovery process.
- Ensure that the Standard Operating Procedures (SOP) are developed and maintained that outlines in greater detail the requirements to carry out long term recovery operations.
- Incorporate exercising ESF #14 as part of the county's annual exercise program.
- As appropriate, involve state, NGOs, and private-sector organizations in pre-event planning activities and training.
- Regularly update required contact list, resource matrix, facilities etc.

Pre-Incident

All local state agencies will provide an individual to the Forrest County EOC to ensure liaison requirements are carried out based on the requirements. The below items indicate other responsibilities that should be implemented as part of pre-incident tasks:

- Forrest County EMA should provide identification of early projects to be quickly implemented, especially those relating to critical facilities based on county and municipal plans.
- In collaboration with local government, assign local staff to work Preliminary Damage Assessment Teams, to help identify and document economic impact and losses in the incident affected area.
- Forrest EMA director should communicate with the SEOC to ensure requirements to leverage any state or federal assistance that could be potentially needed to assist in impacted area.
- Develop/coordinate mechanism and requirements for post-incident assessments, plans and activities that can be scaled or tailored to incidents of varying types and magnitudes.

Incident

Upon activation of ESF #14, the Forrest County Emergency Manager will initiate the following activities/responsibilities:

- Ensure adequate communications are established and maintained.
- Obtain the initial situation and damage assessment through established local teams.
- Coordinate the distribution of assets as needed.
- Maintain a complete log of actions taken, resource orders, records and reports.
- Ensure necessary information is forwarded to the ESF #5 lead for collection to the SEOC in helping to establish priorities.
- Ensure information is provided to ESF #15 for any needed press releases.

Forrest County Emergency Support Function #14 – Long Term Recovery Annex

Post Incident

The Forrest County EMA director would be required to carry out the following responsibilities as part of post-incident requirements:

- Prepare an after-action report that identifies key problems, possible resolutions on how they are to be solved, and makes recommendations for improving ESF response operations. All county agencies will participate in the input of this report and will be disseminated to key county officials, county agencies, NGOs, VOADs and MEMA.
- Gather information from state and local agencies to assess the scope and magnitude of the social and economic impacts on the affected area(s).
- Convene inter-departmental and inter-agency meetings to determine incident specific action plans to support specific community recovery and mitigation activities.
- Coordinate identification of appropriate state programs with MEMA to support implementation of long-term community recovery plans.
- Ensure recovery plan identifies gaps under current authorities and funding and identify through MEMA any possible new legislation needed to address program gaps. This would include necessary waivers, state and federal law compliance as well as measures to prohibit delay of assistance to recipients.

Responsibilities

Forrest County Board of Supervisors

- County Board President or member designated will be required to convene meetings pre- and post-incident to implement requirements of ESF #14.
- Serve as the lead within the county to ensure necessary proclamations and reports are developed and forwarded to MEMA.
- Assist and approve all public information correspondence or media releases.
- Ensure temporary, necessary ordinances or policies are drafted to ensure the safety of all citizens within Forrest County.

Mayors (Cities of Hattiesburg and Petal)

- Ensure policies and procedures are carried out as outlined in ESF #14.
- Serve as the key official within that municipality to ensure necessary requirements as identified are in place (equipment, facilities, etc.).
- Provide any necessary information required by EMA director to ensure public information releases and damage assessment reports are forwarded to SEOC.

Forrest County Emergency Support Function #14 – Long Term Recovery Annex

Forrest County Attorney

- Provide legal advice and interpretation for all policies, waivers, etc. for county needs as part of the long term recovery process to elected officials and the county EMA director.
- Work with the State Attorney General's office to ensure compliance of requirements under the Mississippi Emergency Management Law.
- Work citizen consumer complaints as identified by local government or the office of the EMA director.

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Forrest County Emergency Support Function #14 – Long Term Recovery Annex

Support Agencies Responsibilities

Agency	Functions
Forrest County Chamber of Commerce	• Work with county, municipal and senior elected officials to identify necessary vendors and contractors to facilitate local long-term restoration and recovery. • Coordinate through MDA/Community Division and county elected officials to assist with CDBG efforts for citizens in the affected areas. • Assist in the identification of sites for Emergency Group Homes and temporary trailer parks as necessary by Forrest EMA.
Public Utilities for Cities of Hattiesburg and Petal	• Lead organization to ensure restorations and resources needed are identified and carried out. • Identify needed resources from other utilities within the region to help in widespread county restorations and construction. • Work with ESF #3 coordinator to ensure that areas requiring needed debris removal and road clearance are identified.
Mississippi Volunteer Organizations Active in Disasters	• Assist applicants with temporary housing vouchers. • Identify additional resources or federal programs for persons affected by the incident/disaster.
Forrest County Sheriff's Office	• Serve as the lead law enforcement agency to assure public safety, necessary curfews, crowd control and traffic control points are manned and implemented during periods of no-entry. • Work ESF #14 needs as identified by Forrest County EMA Director.
City of Hattiesburg Housing Authority	• Provide housing assistance and needed resources to persons through rental /leases, purchases (based on availability). • Serve as the local liaison for HUD/USDA applicants affected by disaster/incident. • Assist citizens with locating and providing housing through the federal housing procurement process (i.e. MS Home Corporation).
Forrest County Sheriff's Office	• Serve as the lead law enforcement agency to ensure public safety, necessary curfews, crowd control and traffic control points are manned and implemented. • Work with ESF #13 at state to provide needed assistance.
	• Provide teams to work road clearance and debris removal. • Initial damage assessment. • Distribute supplies and resources within the county.

Forrest County Emergency Support Function #14 – Long Term Recovery Annex

ESF Review and Maintenance

Forrest County Emergency Management will coordinate the biennial revision of this ESF with the Coordinator. The Coordinator will be responsible for obtaining input from the Primary and all Support Agencies. Other unscheduled reviews and revisions may be made after implementation of the plan or because of changes in laws or regulations. Recommendations for changes will be submitted to Emergency Management for approval, publication, and distribution.

Forrest County Emergency Support Function #15 - External Affairs Annex

ESF #15 Coordinator

Forrest County Emergency Management
Agency

Primary Agencies

Forrest County Emergency Management
Agency
Public Information Officer (County
Appointed)

Support Agencies

WDAM TV
WHLT TV
Hattiesburg American
Radio Stations
Clear Channel Radio- WORV
WBBN, WKZW, WXRR, WKNZ

State Primary Agencies

Mississippi Department of Agriculture and
Commerce
Mississippi Department of Corrections

Mississippi Department of Education
Mississippi Department of Employment
Security
Mississippi Department of
Environmental Quality
Mississippi Department of Finance and
Administration
Mississippi Department of Health
Mississippi Department of Human
Services
Mississippi Department of Medicaid
Mississippi Department of Mental
Health
Mississippi Department of Public Safety
Mississippi Department of
Transportation
Mississippi Development Authority
Mississippi Gaming Commission
Mississippi Insurance Department
Mississippi Office of Attorney General
Office of the Governor
Mississippi Military Department
Mississippi Public Broadcasting

Purpose

The purpose of this ESF is to provide for the effective collection, control, and dissemination of emergency public information, and for the minimization of confusion, misinformation, and rumors during times of emergency. Long term public educational efforts related to hazard awareness are also outlined in this annex.

Scope

- The Forrest County PIO, or designee by elected official, along with any additional local agency/department or non-profit organization's PIO support, will implement a public information program, which includes planning and directing public awareness campaigns for such items as severe weather, hurricanes, flooding and tornadoes.
- Forrest County ESF #15, working with the MEMA PIO, will publicize response activities that directly benefit the affected communities in Forrest County. Such activities will include: shelter and feeding locations, road closure information, boil water notices, school closings, health and mental health information, environmental hazards or any other type of information that may be required to assist citizens during an emergency.
- Forrest County ESF #15, working in consultation with the MEMA PIO, will respond to reporter/public inquiries for damage assessments and will publicize any disaster declarations.

Relationship to the Whole Community

Individuals/Community Organizations

The public, both individuals and community organizations, have an important role in assisting with rapid dissemination of information, identifying unmet needs, and mutual support.

Local, State, Tribal, and Area Governments

Counties, municipalities and area authorities retain the primary responsibility for communicating health and safety instructions for their population. Nothing in this annex limits the authority of these authorities to release information regarding an incident under their jurisdiction, particularly if it involves immediate health and safety issues. In the unlikely event that counties, municipalities and area governments are unable to perform these responsibilities, the State may provide vital operational health and safety information to the affected population. Nothing in this document should be construed as diminishing or usurping those responsibilities.

Private Sector/Nongovernmental Organizations

The private sector is a component of external affairs. Coordinated communication and collaboration with the private sector supports effective incident response by integrating private sector capabilities and information into response operations. Information must be coordinated across various levels of government to identify needs, convey resources available for business recovery, and facilitate collaborative support for support for economic recovery. Information must be disseminated about response and other important information to the private sector through public outreach and education methods, such as media campaigns, workshops, roundtables, and trainings.

Core Capabilities and Actions

ESF Role Aligned to Core Capabilities

The following table lists the Response core capability that ESF #15 most directly supports, along with the particular ESF #15 actions related to that core capability. Though not listed in the table, all ESFs support the core capabilities of Planning and Operational Coordination. **The actions listed beside each core capability in this table apply to local, state, tribal, federal and NGOs.**

Forrest County Emergency Support Function #15 - External Affairs Annex

Core Capability	ESF #15 – External Affairs
Public Information and Warning	External Affairs • Provides accurate, coordinated, and timely information to affected audiences. • Provides communications support and advice to the leaders during an incident. • Conducts communications planning. Public Affairs • Coordinates messages with local, state, tribal and area Federal governments from a National Joint Information Center (NJIC). • Gathers information on the incident. • Provides incident-related information through the media and other sources in accessible formats and multiple languages to individuals, households, businesses, and industries directly or indirectly affected by the incident, including those with disabilities and others with access and functional needs. • Monitors news coverage to ensure that accurate information is disseminated. • Disseminates incident information to new media (official Web sites, social networking platforms) to ensure wide delivery of life saving information. • Maximizes the use of video and digital imagery to communicate during incidents. • Handles appropriate special projects, such as news conferences and press operations, for incident area tours by government officials and dignitaries. • Provides basic services, such as communications and supplies, to assist the news media in disseminating information to the public. • Oversees media relations. • Ensures effective communication of incident information to individuals with disabilities and others with access and functional needs through the use of appropriate auxiliary aids and services, such as sign language and other interpreters; captioning of audio and visual materials; and accessible Web site communications.

	Community Relations • Conducts outreach to the whole community, including limited English proficiency populations and those with disabilities and others with access and functional needs. Disseminates critical information to survivors and affected communities on available disaster assistance programs and other relevant recovery information. • Coordinates closely with the affected state(s) to identify community leaders (e.g., grassroots, political, religious, educational, business, labor, ethnic, and racial) and neighborhood advocacy groups to assist in the rapid dissemination of information, identify unmet needs, establish an ongoing dialogue and information exchange, and facilitate collaborative local, state, tribal, territorial, insular area, or Federal planning and mutual support for disaster response. Prepares an initial action plan to support Unified Coordination Group with incident-specific guidance and objectives. Develops and disseminates reports to key decision makers to provide situational awareness and share critical, actionable information gathered from the field. • Serves as the primary liaison between the Federal response operations and the community. Engages with community through door-to-door outreach, public meetings, and other external affairs activities. • Conducts assess, inform, and report (AIR) activities to improve situational awareness. Congressional Affairs • Prepares an initial congressional affairs action plan to support the Unified Coordination staff with incident specific guidance and objectives. • Establishes contact with congressional offices representing affected areas to provide information on the incident.
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Forrest County Emergency Support Function #15 - External Affairs Annex

	• Coordinates with Congressional Affairs staff from all federal agencies involved in the response to ensure consistency and transparency in communicating with members of Congress. • Organizes Congressional briefings. • Arranges for incident site visits for members of Congress and their staffs. • Responds to congressional inquiries. • Assists in the development of written materials for presentations and making congressional notifications. Intergovernmental Affairs • Promotes Federal interaction and implements information sharing with local, state, tribal and area governments. • Informs local, state, tribal, territorial, and insular area elected and appointed officials on response efforts and recovery programs. • Disseminates information with the assistance of state municipal leagues, county associations, and tribal governments. • Promotes Federal interaction with tribal governments on all aspects of incident response operations. • Ensures inclusion of tribes in all aspects of incidents and incident response operations, if necessary. Joint Information Center • Serves as a central point for coordination of incident information, public affairs activities, and media access to information regarding the latest developments. ○ Incident JIC: Is the physical location where all public affairs professionals involved in the response work together to provide critical emergency information, media response, and public affairs functions. ○ Virtual JIC: Links all participants through technological means (secure or non-secure) when
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Forrest County Emergency Support Function #15 - External Affairs Annex

	geographical restrictions, incident management requirements, and other limitations preclude physical attendance by public affairs leadership at a central location. ○ Satellite JIC: Is a forward-deployed component of an incident JIC. ○ Area JIC: Multiple JICs may be used when there are multiple Joint Field Offices (JFOs) to support the area command Unified Coordination structure and whenever multiple JICs are operating Plans and Products • Educates the public in the aftermath of an incident through news advisories, press releases, prepared materials, fliers, and talking points. • Develops new media products for dissemination, such as blog posts, messages for social media, update messages, video, and digital imagery. Private Sector • Provides strategic counsel and guidance to response leadership in actual or potential incidents. • Conducts outreach and education. • Promotes operational integration with the impacted private sector entity to support local economic response and recovery. • Supports situational awareness by engaging the private sector in information sharing efforts.
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Policies

- Forrest County will endeavor to release timely and accurate emergency information to the public concerning emergency preparedness, response and recovery.
- Life-safety information and instructions to the public have first priority for release.
- Mission assignments to departments or jurisdictions for public affairs should be agreed upon by those entities prior to an actual emergency or disaster.

Forrest County Emergency Support Function #15 - External Affairs Annex

- Forrest County and its incorporated cities and towns are entitled to release information concerning their emergency actions. Any releases prepared by the EOC, city, or town which quote or mention another jurisdiction should be coordinated with the respective jurisdiction before being released.
- This annex is effective upon approval.
- All appropriate governmental and volunteer agency resources should be used as available.
- All services should be provided without regard to economic status or racial, religious, political, ethnic, or other affiliation.
- Forrest County's response during incidents, emergencies, or disasters is based on the availability of resources. If the response requirements go beyond local capabilities, mutual aid, state, and/or federal assistance should be requested.
- All requests from appropriate local jurisdictions to the state for medical and public health assistance should be assumed to be valid.
- All organizations are responsible for the development and maintenance of their own internal operating and notification procedures. No part of this annex is intended to supplant agency SOG/SOPs.
- All organizations are responsible for filling any important vacancies; recalling personnel from leave, if appropriate; and, alerting those who are absent due to other duties or assignments.
- Personnel designated as on-scene responders or representatives to the EOC should make prior arrangements to ensure that their families are provided for in the event of an emergency, so to ensure a prompt, worry-free response and subsequent duty.

Concept of Operations

Assumptions

- Emergencies and disasters may occur without warning at any time of day or night, and may cause mass casualties.
- A public education and information program will help save lives and property during emergencies and disasters if the public knows how to prepare for them.
- In an emergency situation, the public will demand information about the emergency and the protective actions to be taken.
- Local print and broadcast media will cooperate in broadcasting, publishing, and posting on the web detailed disaster-related instructions to the public.
- Normal means of communications in the affected areas may be either destroyed or largely incapacitated; therefore, only limited and incomplete information is anticipated from the disaster area until communications can be restored.

Forrest County Emergency Support Function #15 - External Affairs Annex

- Responding agencies will provide information to reduce public concerns about the incident and response activities.
- Sufficient trained support personnel will be available to help coordinate public information and interface with the media and other agencies.
- Demands for information from media outside the jurisdiction will be significantly increased in a disaster.
- State-level news releases should be coordinated with the designated County PIO and not conflict with local-level releases.
- Rumor control procedures directed by the designated County PIO should prevent incorrect information from affecting emergency response activities.
- The EOC PIO maintains listings of media contacts and Emergency Alert System (EAS) networks and relies on those contacts and networks for the dissemination of Emergency Public Information.
- During a county-wide or large disaster, a Joint Information Center (JIC) may be established to coordinate the dissemination of information about all county, state and federal disaster response and recovery programs.
- Information is one of the first casualties of a disaster. Rumors often abound and information is usually sketchy at best. It may be hours before officials know the facts. The lack of information or contradictory information may cause confusion. The public may accept as valid rumors, hearsay and inaccurate information which may cause unnecessary fear and confusion.

General

- Forrest County Emergency Management Agency has the primary responsibility for disseminating information affecting their localities. This information will also be provided to MEMA in order to establish a consolidated report for release to the news media statewide.
- Emergency information efforts will focus on specific event-related information. This information will generally be of an instructional nature focusing on such things as warning, evacuation, and shelter. It is also important to keep the public informed of the general progress of events. A special effort will be made to report positive information regarding emergency response in order to reassure the community that the situation is under control.
- Rumor control will be a major aspect of the informational program. Along with this will be the use of public feedback as a measure of the program's effectiveness. Educational efforts will be directed toward increasing public awareness about potential hazards and how people can deal with them. All information and education efforts will rely heavily on the cooperation of commercial media organizations.
- The Forrest County Emergency Management Agency maintains a daily public information awareness program and has designated one or two individuals to serve as its official Public Information Officer(s) or disaster spokesperson(s).
- The majority of the information that ESF #15 will disseminate to the public through the media will come from the PIO via situation reports, county news releases, and one-on-one contact with other

Forrest County Emergency Support Function #15 - External Affairs Annex

ESFs. Situation report information will be double-checked by ESF #15 staff before it is released to the media and publicized; EOC staff should not quote situation reports to the media.

- ESF #15 will publicize, through the media and other means, response activities that directly benefit affected communities. Response activities that would be publicized include location of shelters and feeding stations, location of comfort stations, boil water orders, road closure information, school and office closing information, and environmental hazards.

Organization

Lead Public Information Officer

The Forrest County Public Information Officer will oversee the information flow to the media/public by coordinating all PIO activity.

County EOC

The Forrest County Emergency Operations Center (EOC) will serve as the centralized point for all information to be released to the public concerning the disaster along with decisions, suggestions, and instructions.

Administrative and Logistical Support

All participating ESF #15 agencies are expected to:

- Coordinate their support with ESF #15.
- Attend and support briefings and other coordination meetings, whether at the EOC or elsewhere.
- Maintain operational logs, messages, requests, and other appropriate documentation for future reference.
- Maintain their maps, displays, status reports, and other information not included in the ESF #5 operations.
- All agencies supporting ESF #15 will receive primary administrative support from their parent organization with additional support from Forrest County EMA as needed.
- All ESF #15 agencies understand that their financial management system, automated or otherwise, used to capture their incurred costs during an emergency, major disaster, or exercise must be in compliance with applicable agency, State, and Federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.
- All ESF #15 agencies should ensure that their financial management system, automated or otherwise, is used to capture their incurred costs during an emergency, major disaster, or exercise and must be in compliance with applicable agency, state, and federal guidelines, rules, standards, and laws. This understanding is based on the knowledge that any reimbursement of incurred costs is subject to audit.

Actions

Preparedness

- Develop and maintain a public information and educational program.
- Appoint and ensure proper training of PIO.
- Develop and maintain a working relationship with the media.
- Develop and maintain a current list of radio stations, television stations and newspapers to be used for public information releases (Appendix 1).
- Develop Standard Operating Guides (SOGs) and checklists in conjunction with the support agencies for this ESF.

Pre-Incident

- Determine the level of response required by ESF #15 to respond to the event.
- Staff ESF #15 as needed in the Forrest County EOC.
- Mobilize resources and coordinate response.
- Brief media spokesperson.

Incident

- Provide updates to the news media concerning disaster conditions and actions taken pursuant to those conditions.
- Coordinate rumor control.
- Schedule news conferences.

Recovery

- Provide public information.
- Compile record of events.
- Assess effectiveness of information and education programs.

Post-Incident

- Coordinate with MSVOAD personnel to determine what volunteer goods and services are most needed in the disaster area.

Forrest County Emergency Support Function #15 - External Affairs Annex

- Prepare an after action report to identify lessons learned, issues and recommendations for resolutions to be forwarded to Forrest County Emergency Manager.

Responsibilities

Forrest County Emergency Management

- Develop and maintain a public information and educational program.
- Maintain a working relationship with the media.
- Appoint a public information officer to disseminate the information.
- Provide concerned citizens with official public information and disaster awareness brochures prior to emergencies.
- Designate a briefing room for media representatives within the EOC or other designated location, and provide news releases to mass media to insure accurate reports and consistent information flow.
- Publicize the telephone number where the public can obtain official disaster information.
- Develop an SOG and checklist in conjunction with the support agencies for this ESF.
- Provide MEMA with periodic updates of the disaster situation.

Public Information Officer (PIO) [Appointed by County Government]

- Direct all emergency public information efforts during actual disasters and provide news releases to the media.
- Check all print media for accuracy of reports.
- Maintain close working relationships and working agreements with a current list of radio stations, television stations and newspapers to be used for public information releases (Attachment 1).
- Obtain all disaster information from EOC officials.
- Receive, compile, and prepare authoritative information with other local governmental agencies.
- Coordinate the release of disaster-related information with other agencies and departments to include MEMA.
- Provide a rumor control function to stop inaccurate information from wide circulation.

Support Agencies Responsibilities

Agency	Functions
Local Media (TV Stations, Radio Stations, Newspapers)	• Provide coverage of emergency management activities • Work with Emergency Management on educational programs • Check accuracy of information with Emergency Management

Forrest County Emergency Support Function #15 - External Affairs Annex

ESF #15 Reviews and Maintenance

It is the responsibility of Forrest County Emergency Management, in conjunction with the PIO, to coordinate with all support agencies to review this ESF annex biennially. Recommendations for change will be submitted to the Forrest County Emergency Manager for approval, publication, and distribution to all plan holders.

Appendices

Appendix 1 – Forrest County Media Listing and Contacts

Appendix 2 – Forrest County Public Information Officer Checklist

Appendix 1

Forrest County Media Listing and Contacts

	Newspapers	• Hattiesburg American
	Radio Stations	• Clear Channel Radio Stations, WORV, WBBN, WKZW, WXRR, WKNZ
	Television Stations	• WDAM, WHLT
	Social Media	• The Emergency Management District, City of Hattiesburg, City of Petal

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Appendix 2

Forrest County Public Information Officer Checklist

Mitigation Phase

- ☐ Stay current or familiar with the latest techniques for emergency management information.
- ☐ Meet regularly with members of the media to foster a close working relationship.
- ☐ Conduct public education and media programs as needed.

Preparedness Phase

- ☐ Maintain close liaison with local, state, and federal PIOs as well as the media to enhance public preparedness and awareness prior to an emergency, and to facilitate dissemination of actual incident information.
- ☐ Participate in emergency drills and exercises to test plans for effective and consistent information release.
- ☐ Attend PIO conferences and training sessions.
- ☐ Compile and prepare emergency information for the public in case of emergency.
- ☐ Coordinate public education/awareness campaigns with the EMA office.

Response Phase

- ☐ Reports to the EOC, upon activation.
- ☐ Contacts the media and informs them about the emergency.
- ☐ Serves as an official Forrest County spokesperson and the sole source for dissemination of official emergency related materials to the public. *Remind agency heads to clear all releases through you.*
- ☐ Activates the Public Information web site and regularly updates it with the latest information.
- ☐ Coordinates all public announcements with the Incident Commander.
- ☐ Issues news media releases from the EOC, or, if activated, establishes and coordinates all actions at the Joint Information Center (JIC).
- ☐ Provides for briefings with the participation of the EMA and other involved officials.
- ☐ Insures that the JIC has the most current information.
- ☐ Verifies the authenticity of incoming information.
- ☐ Verifies that duplicate or contradictory releases are not being made.
- ☐ Takes action to maintain control of rumors.
- ☐ Coordinates with the American Red Cross to establish a single point of contact for the public to obtain information concerning missing relatives.
- ☐ Public Information Officers should provide news releases that emphasize the following:
 - A clear identification of the affected area
 - Timely, accurate and easily understood information on the situation.
 - Recommended or ordered protective actions.
 - Descriptions of local, State and Federal response to the emergency.
 - Identification of stations and times for information updates.
 - At the end of an emergency situation, request that broadcast media announce the end of the emergency at regular intervals to ensure complete dissemination to the public.
- ☐ After an emergency is terminated, continue to provide information to the media concerning recovery operations
- ☐ Maintains current files and accurate records of all information released to the public and media which should include, but not be limited to:

Forrest County Emergency Support Function #15 - External Affairs Annex

- Name, agency, and phone number of the release initiator.
- Text, tape, or video of the news release.
- Substantiating information for the release.
- Date and time information received.
- Date and time information released.
- How and to whom the news release was issued.

Recovery Phase

- ☐ Maintain status board.
- ☐ Continue to brief the media about continuing developments.
- ☐ Critique the public information response to the emergency with the media, DESC and agency heads.
- ☐ Incorporate appropriate recommendations to revise the plan.
- ☐ Release available statistics on disaster damage, injuries and fatalities.
- ☐ Inform the public on available assistance - and the location of shelters and disaster assistance centers.
- ☐ Provide the media information on the progress of recovery efforts.

DISTRIBUTION & DONATIONS SPECIFIC

DISTRIBUTION AND DONATIONS ANNEX

**WATER & ICE
Commodities**

The Emergency Management District
4080 U.S. Hwy 11
Hattiesburg
MS 39402

FORREST COUNTY

Rev. 2022

This Annex provides the organization and guidelines for ensuring the ordering, receiving and distribution of mass commodities provided to Forrest County during times of major crisis. Pre-identified locations for distribution will be prepared and the commodities transported to each location. It also provides the SOP'S for Donations Management for coordinating, control and warehouse the mass amounts of donated goods and services that could infiltrate into Forrest County following a disaster.

Introduction

The County is subject to the impacts from Severe Weather and Hurricanes. These hazards can lead to wide spread power interruptions. The impact of the loss of power leads directly to the ability of the general public to sustain themselves. The loss of power on the commercial side leads to the loss of critical services for the general public. Other hazards can lead to the same result but Severe Weather and Hurricanes are the most threatening. The lost of power can have a cascading impact on other utilities such phone, water and sewer.

Upon the detection of a critical event, Forrest County Emergency Management District will activate the EOC and specific ESF'S to support the event. The response effort will be directly portioned to the amount of citizens and businesses without power or the number o f uninhabitable dwelling units. Temporary generator capability is beginning to somewhat reduce the negative impact of individual households. Critical utilities and commercial services power loss impact are being reduced through initiatives to provide FEMA/State generator assets and through the 5% hazard mitigation grant program.

Scope of this Plan

This plan is addressing the ordering, receiving and distribution of mass commodities provided to Forrest County during times of major crisis. Specifically, this plan addresses water and Ice with the ability to add MRE'S and tarps or plastic provided there is a significant need.

Primary Contacts

The primary contacts for this plan are the following:

Local – EMD Director for Forrest County and Hattiesburg

Executive Director Glen Moore

Office Phone: 601-544-5911

Email: glen@forresteoc.com

State – EM Logistics Mgmt MEMA

Don Wilson

Office Phone: 601-933-6705

Email: dwilson@mema.ms.gov

Recognition of the Problem

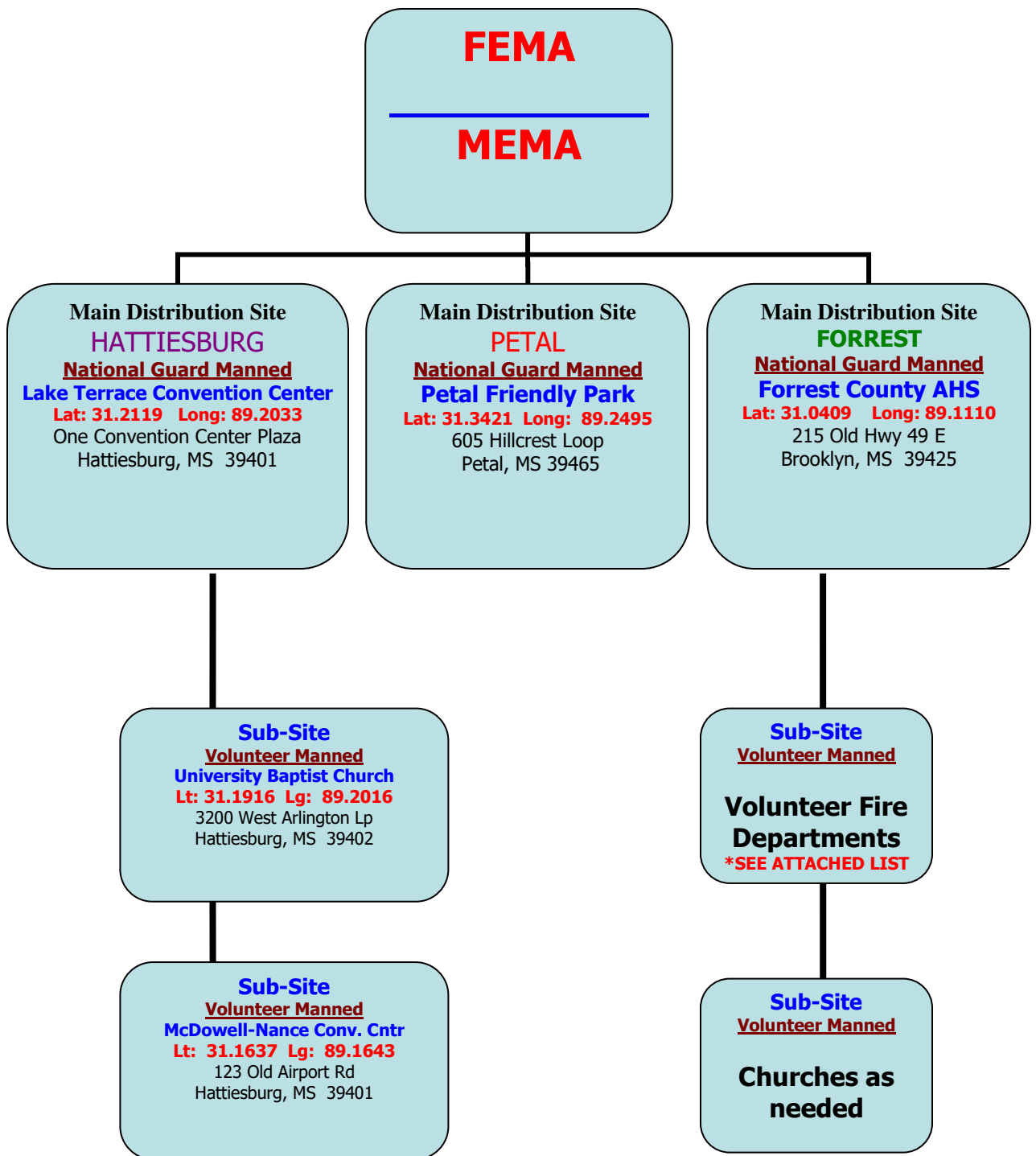
Until the event occurs and a damage assessment has been completed, prediction of the needs is an educated guess, based on past events. Forrest County EMD will make initial assessment as soon as practical after the event has occurred. It will consult with the power company(ies) that serve Forrest County as to the magnitude of the outages and the anticipated repair times. The EMD will consult with other emergency agencies to determine the extent of the damage to the community infrastructure.

Principle of Supply and Distribution

It is recognized that the flow of commodities is not instant but is a pipeline effect. That fact complements the reality that it takes time and resources to set up public distribution centers, and the general public in this region generally has several days of water, ice and food available to them at their places of residence based on the hazards that are more frequent to Forrest County. Unusual hazard occurrences could make these planning assumptions invalid. MRE needs are related to the operating status of the grocery stores, of which there are many in the Hattiesburg and Forrest County area. The financial condition of the population will sometimes dictate the need for MRE'S to bridge the time between the event and the next normal pay day. Unfortunately, the public desire for commodities outpaces their need for commodities. Arrangements for commodities will be based on power, water and grocery store status. Generally the nature of our disasters determines the need for tarps or plastic covering. They are usually dispensed as requested directly from the Emergency Management District EOC.

State Resources Needs

The desired state of affairs is that staging and distribution centers shall be equipped with local resources for operation. The practicality of this, decreases rapidly when the return of normal commercial operations occurs consuming the volunteers back to their normal employment. Since commodity distribution often extends beyond core commercial operation, shortfalls can occur.



FORREST COUNTY
ICE AND WATER DISTRIBUTION

CITY OF HATTIESBURG

NATIONAL GUARD MANNED AT THE MAIN SITE ONLY

Main Water and Ice Distribution Center: **LAKE TERRACE CONVENTION CENTER**

Address **One Convention Center Plaza**
(Hwy 49 & I-59 Interchange)
HATTIESBURG, MS 39401

Contact Person **RICK TAYLOR- MGR**
Contact Number **601-268—3220**
Cell Number **601-606-9074**

CITY/COUNTY OR VOUNTEERS MANNED AT ALL SUB-SITES

Sub-Site Location: **UNIVERSITY BAPTIST CHURCH**

Address **3200 WEST ARLINGTON LOOP**
HATTIESBURG, MS 39402

Sub-Site Location: **McDOWELL NANCE CONVENTION CENTER**

Address **123 OLD AIRPORT RD**
HATTIESBURG, MS 39401

FORREST COUNTY

ICE AND WATER DISTRIBUTION

COUNTY

NATIONAL GUARD MANNED AT THE MAIN SITE ONLY

Main Water and Ice Distribution Center: **FORREST COUNTY AHS**

Address 215 OLD HWY 49 EAST
BROOKLYN, MS 39425

Sub-Site Location: VOLUNTEER FIRE STATIONS

Address **see attached list

Contact Person FIRE CHIEF OF EACH DEPARTMENT

Sub-Site Location: CHURCHES

Address ** As needed

Contact Person _____

Contact Number _____

Pre-Designated Donation Manager COREY PROCTOR – County Planner

Contact Number (w) 601-583-6162 or © 601-5436860

FORREST COUNTY

ICE AND WATER DISTRIBUTION

CITY OF PETAL

NATIONAL GUARD MANNED AT THE MAIN SITE ONLY

Main Water and Ice Distribution Center: **PETAL FRIENDLY PARK**
Address **605 HILLCREST LOOP**
PETAL, MS 39465

CITY/COUNTY OR VOLUNTEER MANNED AT ALL SUB-SITES

Sub-Site Location: N/A

Address _____

Contact Person _____

Contact Number _____

Sub-Site Location: N/A

Address _____

Contact Person _____

Contact Number _____

Pre-Designated Donation Manager **MELISSA MARTIN – (Volunteer)**
Contact Number **601-545-1776 (City Hall)** DS-6

FORREST COUNTY

Water and Ice Distribution Plan

FEMA / MEMA distribution trucks will deliver Water and Ice to the three main pre-determined distribution sites. The National Guard will only man these three main sites.

**Lake Terrace Convention Center
Petal Friendly Park
Forrest County Agriculture High School**

MAIN DISTRIBUTION SITES

The main sites will be responsible to distribute both to the general public and to pre-determined sub-sites and pre-determined critical facilities.

☉ TO THE GENERAL PUBLIC:

1. Main distribution site manned by National Guard will distribute ice/water (amounts may vary with availability) to the public.
2. Water / Ice amount will depend on availability.

☉ TO SUB-SITES:

1. Main distribution sites will allow Pre-Determined Sub-Sites from their jurisdiction to load Water/Ice (amounts may vary with availability) to be distributed from sub-sites. A list of these pre-approved sites for each jurisdiction (Hattiesburg, Forrest County, and Petal) will be kept at Main Distribution Site.

☉ TO PRE-DETERMINED CRITICAL FACILITY AGENCIES:

1. Main distribution site will allow pre-determined critical facilities i.e. nursing – assisted living facilities, hospital, and shelter – load bulk daily supplies.
2. Any critical facility that may request Water/Ice must first contact the EOC for pre-approval.
3. A list of pre-determined critical facilities will be kept at each Main Distribution Site.

SUB-SITE DISTRIBUTION LOCATIONS

All sub-sites must be approved by the Emergency Management District and Registered as an official site in order to receive bulk supplies from the Main distribution sites. Pre-Determined Sub-Sites will be responsible to pick-up and distribute to the general public.

☉ TO THE GENERAL PUBLIC:

1. A list of each Jurisdictions Sub-Sites will be maintained at the Jurisdictional Main Distribution Site i.e. Hattiesburg, County, Petal.
2. Pre- Determined Sub-Site Distribution Sites will be manned by Volunteers Only.

3. Sub-Sites must be able to pick-up Water and Ice from the Main Distribution Site in their jurisdiction.
4. Sub-Sites must supply own transport and loading crew.
DS-7
5. Amount of Ice and Water for each sub-site will be on **AVAILABILITY ONLY BASIS!**
6. Distribution of Ice and Water will be to the public only. (No groups or bulk distribution from Sub-Sites.) ****All bulk and group distribution will be from Main Site Only!**

PRE-DETERMINED CRITICAL FACILITY AGENCIES

- Ⓢ Critical facilities are deemed those who house elderly, disabled, medical and shelters
- Ⓢ Agencies in need of bulk daily supplies must make request through the EOC for the amount of ice/water daily request. The requesting agency will then be placed on the list of authorized agents to receive bulk supplies for their facility. (Amounts will vary with the amount of ice/water's availability)
- Ⓢ Main distribution site will allow pre-determined critical facilities load bulk daily supplies. (Amounts may vary due to availability)
- Ⓢ Critical facilities must supply own transportation and loading crew.
- Ⓢ A list of pre-determined critical facilities will be kept at each Main Distribution Site
- Ⓢ Critical facilities bulk supplies will be allowed to use own jurisdiction Main Distribution Site, (Hattiesburg, Petal, and Forrest County) example: If critical facility is located in Hattiesburg they must use the Hattiesburg Main Distribution Site.

Pre-Determined Equipment Needs

Site One – Hattiesburg

HBG Lake Terrace Convention Center

1. Two (2) Fork Lifts
2. Two (2) Pallet Jacks
3. One (1) Tent
4. Two (2) Cooling Fans
5. One (1) 5kw Generator
6. One (1) Light Set
7. 15 Barricades
8. 50 Traffic Cones
9. Two (2) Large Dumpsters

Site Two - Petal
Petal Friendly Park

1. One (1) Fork Lift
2. One (1) Pallet Jack
3. One (1) Tent
4. Two (2) Cooling Fans
5. One (1) 5kw Generator
6. One (1) Light Set
7. Five (5) Barricades
8. 25 Traffic Cones
9. One (1) Large Dumpster

Site Three - Forrest County
Forrest County AHS

1. One (1) Fork Lift
2. One (1) Pallet Jack
3. One (1) Tent
4. Two (2) Cooling Fans
5. One (1) 5kw Generator
6. One (1) Light Set
7. Five (5) Barricades
8. 25 Traffic Cones
9. One (1) Large Dumpster

MAIN POD SITE 1
LAKE TERRACE CONVENTION CENTER, HATTIESBURG

SERVING THE FOLLOWING VFD SUB-SITES:

DIXIE VFD

19 DIXIE BARN RD.

LT 31.1318

LG 89.1821

RAWLS SPRING VFD STATION 1

41 ARCHIE SMITH RD.

LT 31.2259

LG 89.221

RAWLS SPRING VEF STATION 2

512 ARCHIE SMITH RD.

LT n/a

LG n/a

NORTH FORREST VFD STATION 1

2315 GLENDALE AVE.

LT 31.2144
LG 89.1818

NORTH FORREST VFD STATION 2
1133 EATONVILLE RD.
LT 31.2537
LG 89.2117

MAIN POD SITE 2
HUDSON'S COMPLEX, PETAL

SERVING THE FOLLOWING VFD SUB-SITES:

MACEDONIA VFD STATION 1
610 MACEDONIA RD.
LT 31.2319
LG 89.1016

MACEDONIA VFD STATION 2
600 MACEDONIA RD.
LT
LG

MACEDONIA VFD STATION 3
711 LEEVILLE RD.
LT 31.2337
LG 89.1525

SUNRISE VFD STATION 1
1071 LUTHER CARTER RD
LT 31.1827
LG 89.1247

SUNRISE VFD STATION 2
177 MYERS RD
LT 31.1534
LG 89.1032

MAIN POD SITE 3

AHS BROOKLYN, FORREST COUNTY

SERVING THE FOLLING VFD SUB-SITES:

BROOKLYN VFD STATION 1

35 OLD HWY 49 SOUTH

LT 31.03234

LG 89.11211

McLAURIN VFD STATION 1

310 CARTER RD.

LT 31.000

LG 89.1309

McLAURIN VFD DANTZLER STATION 2

764 CHURCHWELL RD.

CARNES VFD

LT 31.1124

LG 89.1715

CARNES VFD STATION 1

268 JOHN MORRIS RD

LT 31.02280

LG 89.12454

CARNES VFD MAXIE STATION 2

105 MOFFETT RD.

LT 30.5732

LG 89.1008

MAIN POD SITE 1

LAKE TERRACE CONVENTION CENTER, HATTIESBURG

SERVING THE FOLLOWING CHURCH AND OTHER SUB-SITES:

UNIVERSITY BAPTIST CHURCH

3200 WEST ARLINGTON LP.

LT 31.1916

LG 89.2016

McDOWELL-NANCE CONVENTION CENTER

123 OLD AIRPORT RD.

LT 31.1637

LG 89.1643



Memorandum

To: Mayor Toby Barker and Members of City Council

From:

cc:

Date: Tuesday, March 18, 2025

Re: Adopt the March 18, 2025 Amendments to the budget for the City of Hattiesburg for fiscal year ending September 30, 2025 and adopt the Resolution authorizing publication of amendments for funds in excess of 10% of the originally appropriated budget.
File Number: 2025-223
Minute Book #

Summary

Adopt the March 18, 2025 Amendments to the budget for the City of Hattiesburg for fiscal year ending September 30, 2025 and adopt the Resolution authorizing publication of amendments for funds in excess of 10% of the originally appropriated budget.

Recommendation Statement

I recommend adoption of the March 18, 2025 budget amendments for fiscal year 2024-2025 and resolution authorizing publication of amendments in excess of 10% of the originally appropriated fund balance.

Please place this on the March 18, 2025 City Council meeting for consideration.

RESOLUTION

WHEREAS, the Mayor and City Council of the City of Hattiesburg, Mississippi, have determined that expenditures within the City will exceed the original budget appropriation; and

WHEREAS, the additional appropriation needed is in excess of ten percent (10%) of the original appropriation, and in accordance with Section 21-35-25 of the Mississippi Code of 1972, as amended, shall be published;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF HATTIESBURG:

Section 1. That the following budget amendments are hereby authorized to be made in the City's General Fund Municipal Court Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$366,255	\$75,050	\$441,305	Contractual Services

Section 2. That the following budget amendments are hereby authorized to be made in the City's General Fund Urban Development Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$130,980	\$18,000	\$148,980	Software, Travel, Advertising

Section 3. That the following budget amendments are hereby authorized to be made in the City's General Fund Information Systems Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$821,000	\$320,200	\$1,141,200	Cyber Security (Grant Funded)

Section 4. That the following budget amendments are hereby authorized to be made in
the City's General Fund Gen. Gov't Building Other Services & Charges Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$423,700	\$353,120	\$776,820	City Hall repairs

Section 5. That the following budget amendments are hereby authorized to be made in
the City's General Fund Police & Fire Training Other Services & Charges Unappropriated Fund
Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$68,700	\$9,000	\$77,700	A/C Repair

Section 6. That the following budget amendments are hereby authorized to be made in
the City's General Fund Code Enforcement Other Services & Charges Unappropriated Fund
Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$765,000	\$100,000	\$865,000	Demolition

Section 7. That the following budget amendments are hereby authorized to be made in
the City's General Fund Traffic Supplies & Expenses Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$148,050	\$50,000	\$198,050	Traffic Control

Section 8. That the following budget amendments are hereby authorized to be made in
the City's Traffic Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$94,850	\$149,800	\$244,650	Traffic Control

Section 9. That the following budget amendments are hereby authorized to be made in the City's Streets Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$1,605,000	\$710,000	\$2,315,600	MV & Agr Eq repair, Paving (Open POs)

Section 10. That the following budget amendments are hereby authorized to be made in the City's Drainage Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$653,000	\$1,660,000	\$2,313,000	Drainage Project

Section 11. That the following budget amendments are hereby authorized to be made in the City's Construction Supplies & Expenses Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$114,700	\$50,000	\$164,700	Outdoor Lighting Mat

Section 12. That the following budget amendments are hereby authorized to be made in the City's Construction Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$146,100	\$89,750	\$235,850	Gen R&M, Outdoor Lighting

Section 13. That the following budget amendments are hereby authorized to be made in the City's Economic Development Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$980,450	\$3,460,882	\$4,441,332	Project Design

Section 14. That the following budget amendments are hereby authorized to be made in

the City's Municipal Fire Protection Capital Outlay Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$75,000	\$971,288	\$1,046,288	Station #1 A/C Repair (Open POs)

Section 15. That the following budget amendments are hereby authorized to be made in

the City's Municipal Road & Bridge Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$1,330,000	\$181,000	\$1,511,000	Midtown Streetscapes

Section 16. That the following budget amendments are hereby authorized to be made in

the City's Municipal Road & Bridge Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$8,068,369	\$3,619,000	\$11,687,369	The Avenues & Tipton Street (DFA funds)

Section 17. That the following budget amendments are hereby authorized to be made in

the City's Municipal Road & Bridge Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$650,000	\$2,622,476	\$3,272,476	BFA and Ramp Project

Section 18. That public interest and necessity requiring same, this resolution shall become effective immediately from and after passage, but nevertheless to be published according to law.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Councilperson _____, seconded by Councilperson _____, and was adopted by the following, to wit;

YEAS:

NAYS:

The President thereby declared the motion carried and the Resolution adopted, this the 18th day of March, 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 18th day of March, 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

MEMORANDUM

TO : **Mayor Barker, Members of City Council**
FROM : **Malcolm G. Berch CFO**
DATE : **March 18, 2025**
SUBJECT : **Proposed Amendments, FY 2025**

Below is a list of the most significant proposed amendments to the FY 2025 budget. Attached is a more detailed list of proposed changes to the General Fund, detailing the impact to the Fund's budgeted ending cash. Descriptions are also included for proposed changes to the budgets of other funds.

Significant items specifically for the **General Fund** include:

- Increase in Streets for Long Term Paving (Open POs)
- Increase in Drainage for Drainage Project/Grant Funded (Midtown/S 10th)
- Increase in Code Enforcement for demolition.
- Realignment and Re-title multiple positions in Fire, Traffic, MPO, Land Code, CDBG, Streets, Shop, Sanitation, Parks & Rec, Admin and Council.

Budget amendments in other funds were attributed mostly to establishing the budgets for the State Bond Fund Projects for the Avenues and Tipton Street. Other notable amendments were to establish the budget for the Sims Road Ramp project and to cover the open PO for the Station #1 A/C repair.

If you have questions concerning the information presented, please give me a call.

RECAP OF PROPOSED AMENDMENTS**March 18, 2025****FY 2025****GENERAL FUND:****Budgeted Ending Cash as adopted** **7,583,077**

Amendments to Revenues:

Cyber Security Grant	113,000	
CDBG	10,046	
National Endowment	25,000	
Intellisafe	199,800	
Contribution	150,000	
Corp 592 Grant	1,100,000	
		1,597,846

Amendments to Expenditures:

City Council - Realignment	(12,650)	
Municipal Court - Prof services, travel	(75,050)	
Mayor/Admin - Realignment	(9,450)	
Accounting - Realignment	-	
Human Resources - Position Transfer, Copier Lease	-	
Loss Control - Position Transfer	-	
Planning - Software, Travel, Advertising	(18,000)	
Information Technology - Cyber Security	(113,000)	
GEN Govt Building - EHC repairs, City Hall repairs	(342,900)	
MPO - Realignment	(1,280)	
Gen Ins oth. - Advertising	(50,000)	
CDBG - Restructured	(9,507)	
Police - Incentive pay, mural	(52,600)	
Joint P&F Training - A/C repair	(9,000)	
Fire Dept - Realignment, painting St#1	(20,175)	
Code Enforcement - Demo, realignment	(104,350)	
Traffic - intellisafe	(199,800)	
Streets - Paving, Veh R&M	(680,000)	
Shop - realignment	(130)	
Draining - Midtown	(1,100,000)	
Construction - Outdoor Lighting, Gen R&M	(139,750)	
Sanitation - Realignment, repair parts and labor	(111,510)	
Transfers - increase transfer to Parks & Rec	-	
Parking Garage - Garage Repairs	-	
Economic Development - Budget for Timberton Park	(44,731)	
		(3,093,883)
Budgeted Ending Cash, as Amended		\$ 6,087,041

PARKS & RECREATION FUND:

Osceola McCarty Park Pavilion, PT crew	\$	(34,810)
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MUNICIPAL FIRE FUND

Budget adjustment for Fire Station #1 HVAC Open PO	\$	(240,283)
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WATER AND SEWER

Streets and Structures	\$	-
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ROAD & BRIDGE

Est budget for DFA funds and projects	\$	(7,950)
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SPECIAL SALES TAX

Art Center, Sims road ramp	\$	(652,476)
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CITY OF HATTIESBURG, MS. - GENERAL FUND
Analysis of Revenue and Expenditure Budgets
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	5-Nov Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
<u>Revenues & Beg. Cash Balance:</u>					
Taxes -Other	\$15,000		\$15,000		\$15,000
Licenses & Permits	4,619,570		4,619,570		\$4,619,570
Intergovernmental Revenues:					\$0
Federal	4,376,536	850,000	5,226,536	1,248,046	\$6,474,582
State	1,073,829		1,073,829		\$1,073,829
State-Shared	28,165,092		28,165,092		\$28,165,092
County/City Shared	86,322		86,322		\$86,322
Charges for Services:					\$0
Public Safety	293,000		293,000		\$293,000
Streets	0		0		\$0
Sanitation	2,350,800		2,350,800		\$2,350,800
Misc.	0		0		\$0
Fines & Forf.	926,000		926,000	199,800	\$1,125,800
Misc. Revenues	379,600		379,600	150,000	\$529,600
Transfers-In	1,224,000		1,224,000		\$1,224,000
Non-Revenue Receipts	385,200		385,200		\$385,200
TOTAL REVENUES EXCLUSIVE OF PROPERTY TAXES	\$43,894,949	\$850,000	\$44,744,949	\$1,597,846	\$46,342,795
Beg. Fund Balance	20,000,000	-3,261,025	16,738,975		\$16,738,975
Less Reserve for Court Technology			0		\$0
Less Reserve for Future Debt Service			0		0
Property Tax Levy	21,400,000		21,400,000		21,400,000
TOTAL AVAIL. REVENUES	\$85,294,949	-\$2,411,025	\$82,883,924	\$1,597,846	\$84,481,770

THE GENERAL FUND EXPENDITURE BUDGETS:

001003	City Council					
	Personnel	\$399,190		\$399,190	\$12,650	411,840
	Supplies & Expenses	3,400		3,400		3,400
	Other Services & Charges	244,500		244,500		244,500
	Capital Outlays	6,000		6,000		6,000
	Total - City Council	\$653,090	\$0	\$653,090	\$12,650	\$665,740
001015	City Court					
	Personnel	\$1,296,700		\$1,296,700		1,296,700
	Supplies & Expenses	69,227		69,227		69,227
	Other Services & Charges	366,255		366,255	75,050	441,305
	Capital Outlays	0		0		0
	Total - City Court	\$1,732,182	\$0	\$1,732,182	\$75,050	\$1,807,232
001020	Mayor/Admin.					
	Personnel	\$889,200		\$889,200	\$9,450	898,650
	Supplies & Expenses	23,050		23,050		23,050
	Other Services & Charges	247,600		247,600		247,600
	Capital Outlays	4,500		4,500		4,500
	Total - Mayor/Admin.	\$1,164,350	\$0	\$1,164,350	\$9,450	\$1,173,800
001030	Elections					
	Personnel	\$33,600		\$33,600		\$33,600
	Supplies & Expenses	2,400		2,400		2,400
	Other Services & Charges	92,050		92,050		92,050
	Capital Outlays	0		0		0
	Total - Elections	\$128,050	\$0	\$128,050	\$0	\$128,050

CITY OF HATTIESBURG, MS. - GENERAL FUND
Analysis of Revenue and Expenditure Budgets
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	5-Nov Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
001040 Muni. Clerk					
Personnel	\$213,250		\$213,250		\$213,250
Supplies & Expenses	4,150		4,150		4,150
Other Services & Charges	49,650		49,650		49,650
Capital Outlays	0		0		0
Total - Muni Clerk	\$267,050	\$0	\$267,050	\$0	\$267,050
001042 Accounting					
Personnel	\$467,400		\$467,400		\$467,400
Supplies & Expenses	7,500		7,500		7,500
Other Services & Charges	5,200		5,200		5,200
Capital Outlays	0		0		0
Total - Accounting	\$480,100	\$0	\$480,100	\$0	\$480,100
001045 Purchasing					
Personnel	\$152,630		\$152,630		\$152,630
Supplies & Expenses	2,750		2,750		2,750
Other Services & Charges	3,284		3,284		3,284
Capital Outlays	0		0		0
Total - Purchasing	\$158,664	\$0	\$158,664	\$0	\$158,664
001060 City Attorney					
Personnel	\$96,710		\$96,710		\$96,710
Supplies & Expenses	100		100		100
Other Services & Charges	600		600		600
Capital Outlays	0		0		0
Total - City Attorney	\$97,410	\$0	\$97,410	\$0	\$97,410
001080 Human Resources					
Personnel	\$322,600		\$322,600		\$322,600
Supplies & Expenses	7,800		7,800		7,800
Other Services & Charges	11,100		11,100		11,100
Capital Outlays	0		0		0
Total - Human Resources	\$341,500	\$0	\$341,500	\$0	\$341,500
001081 Loss Control					
Personnel	\$73,960		\$73,960		\$73,960
Supplies & Expenses	6,000		6,000		6,000
Other Services & Charges	2,800		2,800		2,800
Capital Outlays	0		0		0
Total - Loss Control	\$82,760	\$0	\$82,760	\$0	\$82,760
001090 Urban Development					
Personnel	\$589,640		\$589,640		\$589,640
Supplies & Expenses	23,945		23,945		23,945
Other Services & Charges	130,980		130,980	18,000	148,980
Capital Outlays	0		0		0
Total - Urban Dev.	\$744,565	\$0	\$744,565	\$18,000	\$762,565
001091 Information Systems					
Personnel	\$326,000		\$326,000		\$326,000
Supplies & Expenses	39,100		39,100		39,100
Other Services & Charges	821,000	207,200	1,028,200	113,000	1,141,200
Capital Outlays	40,000		40,000		40,000
Total - Inf. Systems	\$1,226,100	\$207,200	\$1,433,300	\$113,000	\$1,546,300

CITY OF HATTIESBURG, MS. - GENERAL FUND
Analysis of Revenue and Expenditure Budgets
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	5-Nov Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
001092 Gen. Gov't Building					
Personnel			\$0		\$0
Supplies & Expenses	19,500		19,500		19,500
Other Services & Charges	423,700	10,220	433,920	342,900	776,820
Capital Outlays	0		0		0
Total - Gen. Gov't Building	<u>\$443,200</u>	<u>\$10,220</u>	<u>\$453,420</u>	<u>\$342,900</u>	<u>\$796,320</u>
001093 Intermodal Facility (Depot) O & M:					
Personnel	\$0		\$0		\$0
Supplies & Expenses	11,300		11,300		11,300
Other Services & Charges	82,500	289,070	371,570		371,570
Capital Outlays	0		0		0
Total - Depot O & M	<u>\$93,800</u>	<u>\$289,070</u>	<u>\$382,870</u>	<u>\$0</u>	<u>\$382,870</u>
001094 Metro Planning					
Personnel	\$203,720		\$203,720	\$1,280	\$205,000
Supplies & Expenses	9,650		9,650		9,650
Other Services & Charges	242,050		242,050		242,050
Capital Outlays			0		0
Total - Metro Planning	<u>\$455,420</u>	<u>\$0</u>	<u>\$455,420</u>	<u>\$1,280</u>	<u>\$456,700</u>
001095 Gen. Gov't Insurance/Other serv.					
Personnel	\$0		\$0		\$0
Supplies & Expenses	500		500		500
Other Services & Charges	3,503,800		3,503,800	50,000	3,553,800
Capital Outlays			0		0
Total - Gen. Gov't Insur/other Serv.	<u>\$3,504,300</u>	<u>\$0</u>	<u>\$3,504,300</u>	<u>\$50,000</u>	<u>\$3,554,300</u>
001096 Federal Programs Administration					
Personnel	\$110,890		110,890	\$6,823	117,713
Supplies	3,500		3,500	\$209	3,709
Other Services & Charges	1,273,262		1,273,262	-\$33,525	1,239,737
Capital Outlay	0		0	\$36,000	36,000
Total - Federal Programs Admin.	<u>\$1,387,652</u>	<u>\$0</u>	<u>\$1,387,652</u>	<u>\$9,507</u>	<u>\$1,397,159</u>
Recap - General Government Cost Centers					
Personnel	\$5,175,490	\$0	\$5,175,490	\$30,203	\$5,205,693
Supplies & Expenses	\$233,872	\$0	\$233,872	\$209	\$234,081
Other Services & Charges	\$7,500,331	\$506,490	\$8,006,821	\$565,425	\$8,572,246
Capital Outlays	\$50,500	\$0	\$50,500	\$36,000	\$86,500
Total - Gen. Government	<u>\$12,960,193</u>	<u>\$506,490</u>	<u>\$13,466,683</u>	<u>\$631,837</u>	<u>\$14,098,520</u>
001100 Police					
Personnel	\$13,309,600		\$13,309,600	\$2,600	\$13,312,200
Supplies & Expenses	767,320		767,320		767,320
Other Services & Charges	1,200,449		1,200,449	50,000	1,250,449
Capital Outlays	14,095	731,490	745,585		745,585
Total - Police	<u>\$15,291,464</u>	<u>\$731,490</u>	<u>\$16,022,954</u>	<u>\$52,600</u>	<u>\$16,075,554</u>
001131 Police & Fire Training					
Personnel	\$54,300		\$54,300		\$54,300
Supplies & Expenses	94,340		94,340		94,340
Other Services & Charges	68,700		68,700	9,000	77,700
Capital Outlays	0		0		0
Total - Police & Fire Training	<u>\$217,340</u>	<u>\$0</u>	<u>\$217,340</u>	<u>\$9,000</u>	<u>\$226,340</u>

CITY OF HATTIESBURG, MS. - GENERAL FUND
Analysis of Revenue and Expenditure Budgets
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	5-Nov Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
001160 Fire					
Personnel	\$10,957,900		\$10,957,900	\$5,175	\$10,963,075
Supplies & Expenses	299,350		299,350		299,350
Other Services & Charges	330,720		330,720	15,000	345,720
Capital Outlays	0		0		0
Total - Fire Dept.	<u>\$11,587,970</u>	<u>\$0</u>	<u>\$11,587,970</u>	<u>\$20,175</u>	<u>\$11,608,145</u>
001180 Code Enforcement					
Personnel	\$816,700		\$816,700		\$816,700
Supplies & Expenses	31,755		31,755		31,755
Other Services & Charges	228,850		228,850		228,850
Capital Outlays	0	98,000	98,000		98,000
Total - Code Enforcement	<u>\$1,077,305</u>	<u>\$98,000</u>	<u>\$1,175,305</u>	<u>\$0</u>	<u>\$1,175,305</u>
001190 Contractual Services - Public Safety					
Personnel	\$233,890		\$233,890	\$4,350	\$238,240
Supplies & Expenses	0		0		0
Other Services & Charges	765,000		765,000	100,000	865,000
Capital Outlays	0		0		0
Total - Cont. Serv. - Public Safety	<u>\$998,890</u>	<u>\$0</u>	<u>\$998,890</u>	<u>\$104,350</u>	<u>\$1,103,240</u>
<u>Public Services Cost Centers:</u>					
001191 Traffic Maint.					
Personnel	\$371,200		\$371,200		\$371,200
Supplies & Expenses	148,050		148,050	50,000	198,050
Other Services & Charges	94,850		94,850	149,800	244,650
Capital Outlays	0		0		0
Total - Traffic Maint.	<u>\$614,100</u>	<u>\$0</u>	<u>\$614,100</u>	<u>\$199,800</u>	<u>\$813,900</u>
001201 Streets					
Personnel	\$1,105,600		\$1,105,600		\$1,105,600
Supplies & Expenses	309,100		309,100	-30,000	279,100
Other Services & Charges	1,605,600		1,605,600	710,000	2,315,600
Capital Outlays	0		0		0
Total - Streets	<u>\$3,020,300</u>	<u>\$0</u>	<u>\$3,020,300</u>	<u>\$680,000</u>	<u>\$3,700,300</u>
001202 Street Lights					
Personnel			\$0		\$0
Supplies & Expenses			0		0
Other Services & Charges	1,400,000		1,400,000		1,400,000
Capital Outlays	0		0		0
Total - Street Lights	<u>\$1,400,000</u>	<u>\$0</u>	<u>\$1,400,000</u>	<u>\$0</u>	<u>\$1,400,000</u>
001203 Engineering					
Personnel	\$628,770		\$628,770		\$628,770
Supplies & Expenses	16,350		16,350		16,350
Other Services & Charges	357,702		357,702		357,702
Capital Outlays	0	220,000	220,000		220,000
Total - Engineering	<u>\$1,002,822</u>	<u>\$220,000</u>	<u>\$1,222,822</u>	<u>\$0</u>	<u>\$1,222,822</u>
001204 Shop					
Personnel	\$499,100		\$499,100	\$130	\$499,230
Supplies & Expenses	27,300		27,300		27,300
Other Services & Charges	60,100		60,100		60,100
Capital Outlays	0		0		0
Total - Shop	<u>\$586,500</u>	<u>\$0</u>	<u>\$586,500</u>	<u>\$130</u>	<u>\$586,630</u>

CITY OF HATTIESBURG, MS. - GENERAL FUND
Analysis of Revenue and Expenditure Budgets
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	5-Nov Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
001205 GOFS					
Personnel	\$0		\$0		\$0
Supplies & Expenses	3,450		3,450		3,450
Other Services & Charges	11,000		11,000		11,000
Capital Outlays	0		0		0
Total - GOFS	\$14,450	\$0	\$14,450	\$0	\$14,450
001206 Drainage					
Personnel	\$0		\$0		\$0
Supplies & Expenses	8,750		8,750		8,750
Other Services & Charges	80,000		80,000		80,000
Capital Outlays	653,000	560,000	1,213,000	1,100,000	2,313,000
Total - Drainage	\$741,750	\$560,000	\$1,301,750	\$1,100,000	\$2,401,750
001207 Construction					
Personnel	\$682,700		\$682,700		\$682,700
Supplies & Expenses	114,700		114,700	50,000	164,700
Other Services & Charges	146,100		146,100	89,750	235,850
Capital Outlays	0		0		0
Total - Construction	\$943,500	\$0	\$943,500	\$139,750	\$1,083,250
001220 Sanitation					
Personnel	\$2,034,650		2,034,650	-\$8,490	\$2,026,160
Supplies & Expenses	437,100		437,100	25,000	462,100
Other Services & Charges	1,565,750		1,565,750	50,000	1,615,750
Capital Outlays	0	1,030,000	1,030,000	45,000	1,075,000
Total - Sanitation	\$4,037,500	\$1,030,000	\$5,067,500	\$111,510	\$5,179,010
001221 Street Cleaning					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	0		0		0
Total - Street Cleaning	\$0	\$0	\$0	\$0	\$0
001250 Health					
Personnel	\$1,537,920		\$1,537,920		\$1,537,920
Supplies & Expenses	119,000		119,000		119,000
Other Services & Charges	4,150		4,150		4,150
Capital Outlays	0		0		0
Total - Health	\$1,661,070	\$0	\$1,661,070	\$0	\$1,661,070
Recap - Public Services:					
Personnel	\$6,859,940	\$0	\$6,859,940	-\$8,360	\$6,851,580
Supplies & Expenses	\$1,183,800	0	\$1,183,800	95,000	\$1,278,800
Other Services & Charges	\$5,325,252	0	\$5,325,252	999,550	\$6,324,802
Capital Outlays	\$653,000	1,810,000	\$2,463,000	1,145,000	\$3,608,000
Total - Public Services	\$14,021,992	\$1,810,000	\$15,831,992	\$2,231,190	\$18,063,182
001260 Animal Control					
Personnel	\$175,850		\$175,850		\$175,850
Supplies & Expenses	11,900		11,900		11,900
Other Services & Charges	322,100		322,100		322,100
Capital Outlays	0		0		0
Total - Animal Control	\$509,850	\$0	\$509,850	\$0	\$509,850

CITY OF HATTIESBURG, MS. - GENERAL FUND
Analysis of Revenue and Expenditure Budgets
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	5-Nov Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
001280 Human/Social Assist.					
Personnel			\$0		\$0
Supplies & Expenses			0		0
Other Services & Charges	331,500		331,500		331,500
Capital Outlays			0		0
Total - Human/Social Assist.	\$331,500	\$0	\$331,500	\$0	\$331,500
001402 Economic Dev.					
Personnel			\$0		\$0
Supplies & Expenses			0		0
Other Services & Charges	623,000	3,293,767	3,916,767		3,916,767
Capital Outlays	980,450	3,416,151	4,396,601	44,731	4,441,332
Total - Economic Dev.	\$1,603,450	\$6,709,918	\$8,313,368	\$44,731	\$8,358,099
001460 Debt Service					
Principal	\$867,158		\$867,158		\$867,158
Interest	297,044		\$297,044		\$297,044
Paying Agent Fee	3,000		\$3,000		\$3,000
Total Debt Service	\$1,167,202	\$0	\$1,167,202	\$0	\$1,167,202
001551 Airport					
Personnel	\$0		\$0		\$0
Supplies & Expenses	17,250		17,250		17,250
Other Services & Charges	38,550		38,550		38,550
Capital Outlays	0		0		0
Total - Airport	\$55,800	\$0	\$55,800	\$0	\$55,800
001553 Cemetery					
Personnel	\$955,800		\$955,800		\$955,800
Supplies & Expenses	80,400		80,400		80,400
Other Services & Charges	59,541		59,541		59,541
Capital Outlays	60,500		60,500		60,500
Total - Cemetery	\$1,156,241	\$0	\$1,156,241	\$0	\$1,156,241
001560 Parking Garages					
Personnel	\$53,860		\$53,860		\$53,860
Supplies & Expenses	1,600		1,600		1,600
Other Services & Charges	46,670		46,670		46,670
Capital Outlays	0		0		0
Total - Parking Garages	\$102,130	\$0	\$102,130	\$0	\$102,130
Transfers to Other Funds	\$4,213,621	150,000	\$4,363,621		\$4,363,621
EXPENDITURES & TRANSFERS	\$65,294,948	\$10,005,898	\$75,300,846	\$3,093,883	\$78,394,729
Recap - General Fund					
Personnel	\$38,593,330	\$0	\$38,593,330	\$33,968	\$38,627,298
Supplies & Expenses	2,721,587	0	2,721,587	95,209	2,816,796
Other Services & Charges	16,843,663	3,800,257	20,643,920	1,738,975	22,382,895
Capital Outlays	1,758,545	6,055,841	7,814,386	1,225,731	9,039,917
Principal Payments	867,158	0	867,158	0	867,158
Interest Payments	297,044	0	297,044	0	297,044
Total - Gen. Fund Cost Centers	\$61,081,327	\$9,855,898	\$70,937,225	\$3,093,883	\$74,031,108
Transfers to Other Funds	4,213,621	150,000	4,363,621	0	4,363,621
Total - Expenditures & Transfers	\$65,294,948	\$10,005,898	\$75,300,846	\$3,093,883	\$78,394,729
Ending Cash Budget	\$20,000,001	-\$12,416,923	\$7,583,078	-\$1,496,037	\$6,087,041

CITY OF HATTIESBURG, MS. - GENERAL FUND
Analysis of Revenue and Expenditure Budgets
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	5-Nov Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
ADMINISTRATIVE	\$12,960,193		\$13,466,683		\$14,098,520
POLICE & ACADEMY	\$15,508,804		\$16,240,294		\$16,301,894
FIRE	\$11,587,970		\$11,587,970		\$11,608,145
CODE ENFORCEMENT	\$1,077,305		\$1,175,305		\$1,175,305
PUBLIC WORKS	\$14,021,992		\$15,831,992		\$18,063,182
DEBT SERVICE	\$1,167,202		\$1,167,202		\$1,167,202
OTHER	\$4,757,861		\$11,467,779		\$11,616,860
TRANSFERS	\$4,213,621		\$4,363,621		\$4,363,621
 PERSONNEL	 \$38,593,330		 \$38,593,330		 \$38,627,298
SUPPLIES	\$2,721,587		\$2,721,587		\$2,816,796
OTHER SERVICES & CHARGES	\$16,843,663		\$20,643,920		\$22,382,895
CAPITAL OUTLAY	\$1,758,545		\$7,814,186		\$9,039,917
DEBT SERVICE	\$1,164,202		\$1,164,202		\$1,164,202
TRANSFERS	\$4,213,621		\$4,363,621		\$4,363,621

CITY OF HATTIESBURG, MS
Analysis of Expenditure Budgets - Funds Other Than General
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	November Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
Parks & Recreation (Fund #2):					
002300 Recreation Maint. Cost Center					
Personnel	\$2,037,900		\$2,037,900	\$11,810	\$2,049,710
Supplies & Expenses	343,800		343,800		343,800
Other Services & Charges	579,001		579,001	23,000	602,001
Capital Outlays	0	361,488	361,488		361,488
Total - Recreation Maint.	<u>\$2,960,701</u>	<u>\$361,488</u>	<u>\$3,322,189</u>	<u>\$34,810</u>	<u>\$3,356,999</u>
002315 Recreation Admin.					
Personnel	\$541,350		\$541,350		\$541,350
Supplies & Expenses	86,760		86,760		86,760
Other Services & Charges	476,800		476,800		476,800
Capital Outlays	0		0		0
Total - Recreation Admin.	<u>\$1,104,910</u>	<u>\$0</u>	<u>\$1,104,910</u>	<u>\$0</u>	<u>\$1,104,910</u>
Kamper Park Zoo					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	0		0		0
Total - Kamper Park	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Recap - Parks & Recreation Fund:					
Personnel	\$2,579,250	\$0	\$2,579,250	\$11,810	\$2,591,060
Supplies & Expenses	430,560	0	430,560	0	430,560
Other Services & Charges	1,055,801	0	1,055,801	23,000	1,078,801
Capital Outlays	0	361,488	361,488	0	361,488
Total - Recreation Maint.	<u>\$4,065,611</u>	<u>\$361,488</u>	<u>\$4,427,099</u>	<u>\$34,810</u>	<u>\$4,461,909</u>
Municipal Fire Protection (Fund #5):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	69,500		69,500		69,500
Other Services & Charges	55,000		55,000		55,000
Capital Outlays	75,000	731,005	806,005	240,283	1,046,288
Principal Payments	40,475		40,475		40,475
Interest Payments	385		385		385
Total - Municipal Fire Prot. Fund	<u>\$240,360</u>	<u>\$731,005</u>	<u>\$971,365</u>	<u>\$240,283</u>	<u>\$1,211,648</u>
Special Streets (Fund #8):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	497,000		497,000		497,000
Capital Outlays	0		0		0
Total - Special Streets	<u>\$497,000</u>	<u>\$0</u>	<u>\$497,000</u>	<u>\$0</u>	<u>\$497,000</u>
Water & Sewer Operation & Maint. (Fund #9):					
009660 Customer Accounts Cost Center					
Personnel	\$946,960		\$946,960		\$946,960
Supplies & Expenses	74,300		74,300		74,300
Other Services & Charges	610,600		610,600		610,600
Capital Outlays	70,000		70,000		70,000
Total - Customer Accounts	<u>\$1,701,860</u>	<u>\$0</u>	<u>\$1,701,860</u>	<u>\$0</u>	<u>\$1,701,860</u>

CITY OF HATTIESBURG, MS
Analysis of Expenditure Budgets - Funds Other Than General
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	November Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
009672 Water Transmission Cost Center					
Personnel	\$1,230,140		\$1,230,140		\$1,230,140
Supplies & Expenses	320,500		320,500	-4,000	316,500
Other Services & Charges	2,237,300		2,237,300	211,000	2,448,300
Capital Outlays	210,000		210,000	-50,000	160,000
Total - Water Trans.	\$3,997,940	\$0	\$3,997,940	\$157,000	\$4,154,940
009673 Plant Cost Center					
Personnel	\$563,070		\$563,070		\$563,070
Supplies & Expenses	540,000		540,000	-61,000	479,000
Other Services & Charges	1,530,060		1,530,060	-34,000	1,496,060
Capital Outlays	0		0		0
Total - Plant	\$2,633,130	\$0	\$2,633,130	-\$95,000	\$2,538,130
009676 Sewer Cost Center					
Personnel	\$397,580		\$397,580		\$397,580
Supplies & Expenses	330,100		330,100	-15,000	315,100
Other Services & Charges	2,565,500		2,565,500	-4,000	2,561,500
Capital Outlays	85,000		85,000		85,000
Total - Sewer	\$3,378,180	\$0	\$3,378,180	-\$19,000	\$3,359,180
009677 Lagoon Cost Center					
Personnel	\$615,270		\$615,270		\$615,270
Supplies & Expenses	325,500		325,500	-30,000	295,500
Other Services & Charges	2,284,400		2,284,400	-13,000	2,271,400
Capital Outlays	0		0		0
Principal Payments	0		0		0
Interest Payments	0		0		0
Total - Lagoon Cost Center	\$3,225,170	\$0	\$3,225,170	-\$43,000	\$3,182,170
Recap: Water & Sewer O & M Fund:					
Personnel	\$3,753,020	\$0	\$3,753,020	\$0	\$3,753,020
Supplies & Expenses	1,590,400	0	1,590,400	-110,000	\$1,480,400
Other Services & Charges	9,227,860	0	9,227,860	160,000	\$9,387,860
Capital Outlays	365,000	0	365,000	-50,000	\$315,000
Principal Payments	0	0	0	0	\$0
Interest Payments	0	0	0	0	\$0
Total - Water & Sewer O & M Fund	\$14,936,280	\$0	\$14,936,280	\$0	\$14,936,280
Water & Sewer Bond & Int. (Fund #10):					
Other Services & Charges			\$0		\$0
Principal Payments	\$5,730,000		\$5,730,000		\$5,730,000
Interest Payments	\$1,145,000		\$1,145,000		\$1,145,000
Paying Agent Fees	\$15,000		\$15,000		\$15,000
Total - W & S Bond & Int. Fund	\$6,890,000	\$0	\$6,890,000	\$0	\$6,890,000
Water & Sewer Revenue (Fund #11):					
Principal Payments	\$0		\$0		\$0
Interest Payments	0		0		0
Other services & charges	71,000		71,000		71,000
Transfers to other funds	29,019,000		29,019,000		29,019,000
Total - W & S Revenue Fund	\$29,090,000	\$0	\$29,090,000	\$0	\$29,090,000

CITY OF HATTIESBURG, MS
Analysis of Expenditure Budgets - Funds Other Than General
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	November Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
2020 Tax Increment (Planet Fitness) Bond & Int (Fund #12):					
Principal Payments	\$39,202		\$39,202		\$39,202
Interest Payments	15,245		15,245		15,245
Other Services & Charges	0		0		0
Transfers	0		0		0
Paying Agent Fees	0		0		0
Total - 1999 TIF Bond & Int Fund	\$54,447	\$0	\$54,447	\$0	\$54,447
City Bond & Interest (Fund #13):					
Principal Payments	\$1,504,178		\$1,504,178		\$1,504,178
Interest Payments	1,942,910		1,942,910		1,942,910
Other Services & Charges	30,000		30,000		30,000
Transfers			0		0
Paying Agent Fees	20,000		20,000		20,000
Total - 1999 TIF Bond & Int Fund	\$3,497,088	\$0	\$3,497,088	\$0	\$3,497,088
SUPPLEMENTAL ENVIRONMENTAL PROJECT (FUND #17):					
Supplies	\$0		\$0		\$0
Other Services & Charges	220,800		220,800		220,800
Capital Outlay	0		0		0
Transfers	0		0		0
Total - Supp. Env. Project Fund	\$220,800	\$0	\$220,800	\$0	\$220,800
Police Fines & Forfeitures (Fund #19):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0	45,721	45,721		45,721
Other Services & Charges	0	30,000	30,000		30,000
Capital Outlays	0	100,000	100,000		100,000
Transfers	0		0		0
Total - Fines & Forf. Fund	\$0	\$175,721	\$175,721	\$0	\$175,721
Series 2002 TIF Bond & Int (Southern Pointe, Fund #20):					
Principal Payments	\$195,000		\$195,000		\$195,000
Interest Payments	47,409		47,409		47,409
other services & charges	2,000		2,000		2,000
Total - 1999 TIF Bond & Int Fund	\$244,409	\$0	\$244,409	\$0	\$244,409
Series 2004 TIF Bond & Int (Home Depot, Fund #21):					
Principal Payments	\$0		\$0		\$0
Interest Payments	0		0		0
Transfers	0		0		0
other services & charges	0		0		0
Total - 2004 TIF Bond & Int Fund	\$0	\$0	\$0	\$0	\$0
Series 2003 TIF Bond & Int (Chauvet Sq., Fund #22):					
Principal Payments	\$165,000		\$165,000		\$165,000
Interest Payments	23,850		23,850		23,850
other services & charges	2,500		2,500		2,500
Transfers to other Funds	0		0		0
Total - 2003 TIF Bond & Int Fund	\$191,350	\$0	\$191,350	\$0	\$191,350
Series 2007 TIFBond & Int (Turtle Creek Fund 23):					
Principal Payments	110,000		110,000		110,000
Interest Payments	21,770		21,770		21,770
Other Services & Charges	2,500		2,500		2,500
Total - 2007 TIF Bond & Int Fund	\$134,270	\$0	\$134,270	\$0	\$134,270

CITY OF HATTIESBURG, MS
 Analysis of Expenditure Budgets - Funds Other Than General
 Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	November Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
Series 2008 TIF Bond & Int (Lincoln Center Fund 24):					
Principal Payments	\$0		0		0
Interest Payments	\$0		0		0
Other Services & Charges	\$0		0		0
Total - 2008 TIF Bond & Int Fund	\$0	\$0	\$0	\$0	\$0
Series 2011 TIF Bond & Int (Turtle Creek Commons/Kohl's Fund 25):					
Principal Payments	\$0		0		0
Interest Payments	\$0		0		0
Transfers	\$0		0		0
Total - 2008 TIF Bond & Int Fund	\$0	\$0	\$0	\$0	\$0
Series 2016 TIF Bond & Int (Whispering Pines Fund 26):					
Principal Payments	\$205,000		205,000		205,000
Interest Payments	\$74,623		74,623		74,623
Other Services & Charges	\$2,000		2,000		2,000
Total - 2008 TIF Bond & Int Fund	\$281,623	\$0	\$281,623	\$0	\$281,623
Series 2016 TIF Bond & Int (Hburg Clinic Midtown Fund 28):					
Principal Payments	\$57,000		57,000		57,000
Interest Payments	\$18,286		18,286		18,286
Other Services & Charges			0		0
Total - 2008 TIF Bond & Int Fund	\$75,286	\$0	\$75,286	\$0	\$75,286
Airport Imp. (Fund #39):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	50,000		50,000		50,000
Capital Outlays	1,236,134		1,236,134		1,236,134
Total - Airport Imp. Fund	\$1,286,134	\$0	\$1,286,134	\$0	\$1,286,134
Series 2015A TIF Bond & Int (The Ridge at Turtle Creek) (Fund #50)					
Principal Payments	84,000		84,000		84,000
Interest Payments	35,695		35,695		35,695
Paying Agent Fees	2,000		2,000		2,000
Other Services & Charges	-		0		0
Total - Series 2015A TIF Bond & Int	\$ 121,695	\$ -	\$ 121,695	\$ -	\$ 121,695
Series 2015B TIF Bond & Int (Midtown Market) (Fund #51)					
Principal Payments	14,000		14,000		14,000
Interest Payments	6,160		6,160		6,160
Paying Agent Fees	2,000		2,000		2,000
Other Services & Charges	-		-		-
Total - Series 2015B TIF Bond & Int	\$ 22,160	\$ -	\$ 22,160	\$ -	\$ 22,160
Series 2019 TIF Bond & Int (Elam Arms) (Fund #52)					
Principal Payments					
Interest Payments	187,000		187,000		187,000
Paying Agent Fees	105,369		105,369		105,369
	4,000		4,000		4,000
Other Services & Charges			0		0
Total - Series 2019 TIF Bond & Int	\$ 296,369	\$ -	\$ 296,369	\$ -	\$ 296,369

CITY OF HATTIESBURG, MS
Analysis of Expenditure Budgets - Funds Other Than General
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	November Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
Municipal Road & Bridge (Fund #72):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	1,330,000		1,330,000	181,000	1,511,000
Capital Outlays	8,068,369		8,068,369	3,619,000	11,687,369
Principal	0		0		0
Interest	0		0		0
Total - Municipal Road & Bridge	\$9,398,369	\$0	\$9,398,369	\$3,800,000	\$13,198,369
Mass Transit (Fund #73):					
Personnel	\$1,551,100		\$1,551,100		\$1,551,100
Supplies & Expenses	250,700		250,700		250,700
Other Services & Charges	326,875		326,875		326,875
Capital Outlays	3,899,392		3,899,392		3,899,392
Total - Mass Transit Fund	\$6,028,067	\$0	\$6,028,067	\$0	\$6,028,067
Water & Sewer Construction (Fund #75):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	2,000,000		2,000,000		2,000,000
Transfers					0
Capital Outlays	6,000,000		6,000,000		6,000,000
Total - W & S Construction Fund	\$8,000,000	\$0	\$8,000,000	\$0	\$8,000,000
Community Centers (Fund #77):					
Personnel	\$651,600		\$651,600		\$651,600
Supplies & Expenses	46,200		46,200		46,200
Other Services & Charges	194,950		194,950		194,950
Capital Outlays	70,500		70,500		70,500
Transfers	0		0		0
Total - Community Centers Fund	\$963,250	\$0	\$963,250	\$0	\$963,250
Community Dev. Block Grant (Fund #82):					
Personnel	\$297,700		\$297,700		\$297,700
Supplies & Expenses	8,250		8,250		8,250
Other Services & Charges	920,660		920,660		920,660
Capital Outlays	1,356,181		1,356,181		1,356,181
Transfers	0		0		0
Total - CDBG Fund	\$2,582,791	\$0	\$2,582,791	\$0	\$2,582,791
Covid Fiscal Recovery Fund (Fund #79):					
Supplies	\$0		0		0
Other Services & Charges	\$0		0		0
Transfers Out	\$0		0		0
Capital Outlay	18,465,810		18,465,810		18,465,810
Total - Series 2009 G.O. Bonds	\$18,465,810	\$0	\$18,465,810	\$0	\$18,465,810
Special Sales Tax-Parks/Rec/USM Improvements (Fund 86):					
Principal Payments	\$1,355,000		1,355,000		1,355,000
Interest Payments	\$131,600		131,600		131,600
Personal Services	\$57,650		57,650		57,650
Supplies	\$0		0		0
Other Services & Charges	\$1,775,000		1,775,000		1,775,000
Transfers Out	\$1,850,000		1,850,000		1,850,000
Capital Outlay	650,000	\$1,100,000	1,750,000	\$1,522,476	3,272,476
Total - Parks/Rec/USM Impr.	\$5,819,250	\$1,100,000	\$6,919,250	\$1,522,476	\$8,441,726

CITY OF HATTIESBURG, MS
Analysis of Expenditure Budgets - Funds Other Than General
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	November Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
Public Safety/Recreation Construction (Fund #88):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	3,604,000		3,604,000		3,604,000
Transfers to other Funds	0		0		0
Total - Series 2002 Const. Fund	\$3,604,000	\$0	\$3,604,000	\$0	\$3,604,000
MDA Energy Efficiency Capital Projects (Fund 89):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	0		0		0
Transfers	0		0		0
Total - Series 2004 Const. Fund	\$0	\$0	\$0	\$0	\$0
Series 2008 G.O. Note (Downtown Lighting)(Fund # 90):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	0		0		0
Transfers	0		0		0
Total - Series 2004 Const. Fund	\$0	\$0	\$0	\$0	\$0
TIF Construction (Fund # 91):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	0		0		0
Transfers	0		0		0
Total - Series 2004 Const. Fund	\$0	\$0	\$0	\$0	\$0
2019 Fire Station Construction Fund (Fund 95):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	981,300		981,300		981,300
Transfers	0		0		0
Total - Series 2001 Const. Fund	\$981,300	\$0	\$981,300	\$0	\$981,300
Infrastructure Impr-Internet Sales Tax (Fund #97):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Transfers			0		0
Capital Outlays	8,000,000		8,000,000		8,000,000
Total - Internet Sales Tax Fund	\$8,000,000	\$0	\$8,000,000	\$0	\$8,000,000
Water Meter Project (Fund #98):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Transfers	0		0		0
Capital Outlays	7,254,315		7,254,315		7,254,315
Total - Kamper Park Imp. Fund	\$7,254,315	\$0	\$7,254,315	\$0	\$7,254,315

CITY OF HATTIESBURG, MS
Analysis of Expenditure Budgets - Funds Other Than General
Fiscal Year Ending September 30, 2025

	Original FY 2023 Budgets	November Amend'ts	Amended Budgets	February Amend'ts	Proposed Amended Budgets
Series 2010 Water & Sewer G.O. Constr. (Fund #99):					
Personnel					
Supplies & Expenses					
Other Services & Charges			0		0
Capital Outlay	\$0		0		0
Transfers out	\$0		0		\$0
Total - Series 2010 Constr.	\$0	\$0	\$0	\$0	\$0
Series 2013 Water & Sewer Revenue Constr. (Fund #105):					
Personnel			0		0
Supplies & Expenses			0		0
Other Services & Charges	\$0		0		0
Capital Outlay	\$0		0		0
Transfers	\$0		0		0
Total - Series 2013 Constr.	\$0	\$0	\$0	\$0	\$0
Series 2016 Water & Sewer Taxable Bonds Constr. (Fund #93):					
Personnel			0		0
Supplies & Expenses			0		0
Other Services & Charges	\$0		0		0
Capital Outlay	\$0		0		0
Transfers			0		0
Total - Series 2016 Constr.	\$0	\$0	\$0	\$0	\$0
Series 2012 Water & Sewer Const. (Fund #94):					
Personnel	\$0		\$0		\$0
Supplies & Expenses	0		0		0
Other Services & Charges	0		0		0
Capital Outlays	0		0		0
Transfers Out	64		64		64
Total - Series 2012 Const.	\$64	\$0	\$64	\$0	\$64
GRAND TOTAL - FUNDS OTHER THAN THE GENERAL FUND	\$133,242,098	\$2,368,214	\$135,610,312	\$5,597,569	\$141,207,881
General Fund	\$65,294,948	\$10,005,898	\$75,300,846	\$3,093,883	\$78,394,729
TOTAL EXPENDITURES & TRANSFERS	\$198,537,046	\$12,374,112	\$210,911,158	\$8,691,452	\$219,602,610
Less: Interfund Transfers	-35,082,685	-150,000	-35,232,685	0	-35,232,685
TOTAL EXPENDITURES	\$163,454,361	\$12,224,112	\$175,678,473	\$8,691,452	\$184,369,925
Recap of City-Wide Expenditure Budgets:					
Personnel	\$47,483,650	\$0	\$47,483,650	\$45,778	\$47,529,428
Supplies & Expenses	\$5,117,197	\$45,721	\$5,162,918	-\$14,791	\$5,148,127
Other Services & Charges	\$34,650,609	\$3,830,257	\$38,480,866	\$2,102,975	\$40,583,841
Capital Outlays	\$61,784,546	\$8,348,134	\$70,132,680	\$6,557,490	\$76,690,170
Principal Payments	9,198,013	0	9,198,013	0	9,198,013
Interest Payments	3,733,746	0	3,733,746	0	3,733,746
Total Expenditure Budgets	\$161,967,761	\$12,224,112	\$174,191,873	\$8,691,452	\$182,883,325

RESOLUTION

WHEREAS, the Mayor and City Council of the City of Hattiesburg, Mississippi, have determined that expenditures within the City will exceed the original budget appropriation; and

WHEREAS, the additional appropriation needed is in excess of ten percent (10%) of the original appropriation, and in accordance with Section 21-35-25 of the Mississippi Code of 1972, as amended, shall be published;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF HATTIESBURG:

Section 1. That the following budget amendments are hereby authorized to be made in the City's General Fund Municipal Court Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$366,255	\$75,050	\$441,305	Contractual Services

Section 2. That the following budget amendments are hereby authorized to be made in the City's General Fund Urban Development Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$130,980	\$18,000	\$148,980	Software, Travel, Advertising

Section 3. That the following budget amendments are hereby authorized to be made in the City's General Fund Information Systems Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$821,000	\$320,200	\$1,141,200	Cyber Security (Grant Funded)

Section 4. That the following budget amendments are hereby authorized to be made in the City's General Fund Gen. Gov't Building Other Services & Charges Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$423,700	\$353,120	\$776,820	City Hall repairs

Section 5. That the following budget amendments are hereby authorized to be made in the City's General Fund Police & Fire Training Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$68,700	\$9,000	\$77,700	A/C Repair

Section 6. That the following budget amendments are hereby authorized to be made in the City's General Fund Code Enforcement Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$765,000	\$100,000	\$865,000	Demolition

Section 7. That the following budget amendments are hereby authorized to be made in the City's General Fund Traffic Supplies & Expenses Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$148,050	\$50,000	\$198,050	Traffic Control

Section 8. That the following budget amendments are hereby authorized to be made in the City's Traffic Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$94,850	\$149,800	\$244,650	Traffic Control

Section 9. That the following budget amendments are hereby authorized to be made in the City's Streets Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$1,605,000	\$710,000	\$2,315,600	MV & Agr Eq repair, Paving (Open POs)

Section 10. That the following budget amendments are hereby authorized to be made in the City's Drainage Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$653,000	\$1,660,000	\$2,313,000	Drainage Project

Section 11. That the following budget amendments are hereby authorized to be made in the City's Construction Supplies & Expenses Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$114,700	\$50,000	\$164,700	Outdoor Lighting Mat

Section 12. That the following budget amendments are hereby authorized to be made in the City's Construction Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$146,100	\$89,750	\$235,850	Gen R&M, Outdoor Lighting

Section 13. That the following budget amendments are hereby authorized to be made in the City's Economic Development Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$980,450	\$3,460,882	\$4,441,332	Project Design

Section 14. That the following budget amendments are hereby authorized to be made in the City's Municipal Fire Protection Capital Outlay Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$75,000	\$971,288	\$1,046,288	Station #1 A/C Repair (Open POs)

Section 15. That the following budget amendments are hereby authorized to be made in the City's Municipal Road & Bridge Other Services & Charges Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$1,330,000	\$181,000	\$1,511,000	Midtown Streetscapes

Section 16. That the following budget amendments are hereby authorized to be made in the City's Municipal Road & Bridge Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$8,068,369	\$3,619,000	\$11,687,369	The Avenues & Tipton Street (DFA funds)

Section 17. That the following budget amendments are hereby authorized to be made in the City's Municipal Road & Bridge Capital Outlays Unappropriated Fund Balance:

ORIGINAL BALANCE	CUMULATIVE AMENDMENTS	AMENDED BUDGET	DESCRIPTION OF ITEMS NOT PREVIOUSLY LISTED
\$650,000	\$2,622,476	\$3,272,476	BFA and Ramp Project

Section 18. That public interest and necessity requiring same, this resolution shall become effective immediately from and after passage, but nevertheless to be published according to law.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Councilperson _____, seconded by Councilperson _____, and was adopted by the following, to wit;

YEAS:

NAYS:

The President thereby declared the motion carried and the Resolution adopted, this the 18th day of March, 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 18th day of March, 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

GENERAL FUND:

REVENUES & BEG. CASH:

Taxes - Other	\$15,000
Licenses & Permits	4,619,570
Inter-governmental Revenues:	
Federal Grants	6,474,582
State Grants	1,073,829
State-Shared Revenues	28,165,092
County Shared Revenues	86,322
Charges for Services:	
Public safety	293,000
Streets	0
Sanitation	2,350,800
Misc.	0
Fines & Forfeits	1,125,800
Miscellaneous	529,600
Transfers-In	1,224,000
Non-Revenue Receipts	385,200
Total From All Sources	<u>46,342,795</u>
Other Than taxation	<u>46,342,795</u>
Beginning Cash and	
Investment Balance	16,738,975
Reserve for Court Technology	0
Amount to be Raised by Tax Levy	21,400,000
TOTAL FROM ALL SOURCES	<u>\$84,481,770</u>

EXPENDITURES & ENDING CASH:

General Government:	
Personnel	5,205,693
Supplies & Expenses	234,081
Other services & Charges	8,572,246
Capital Outlays	86,500
Total - General Government	<u>14,098,520</u>
Police Dept.:	
Personnel	13,312,200
Supplies & Expenses	767,320
Other services & Charges	1,250,449
Capital Outlays	745,585
Total - Police Dept.	<u>16,075,554</u>
Police & Fire Training:	
Personnel	54,300
Supplies & Expenses	94,340
Other services & Charges	77,700
Capital Outlays	0
Total - Police & Fire Training	<u>226,340</u>
Fire Dept.:	
Personnel	10,963,075
Supplies & Expenses	299,350
Other services & Charges	345,720
Capital Outlays	0
Total - Fire Dept.	<u>11,608,145</u>
Land Development Administration:	
Personnel	816,700
Supplies & Expenses	31,755
Other services & Charges	228,850
Capital Outlays	98,000
Total - Land Dev. Admin.	<u>1,175,305</u>

Public Safety Contractual Services:	
Personnel	238,240
Other services & Charges	865,000
Total - Pub. Safety Cont. Serv.	<u>1,103,240</u>
Public Services:	
Personnel	6,851,580
Supplies & Expenses	1,278,800
Other services & Charges	6,324,802
Capital Outlays	3,608,000
Total - Public Services	<u>18,063,182</u>
Animal Control	
Personnel	175,850
Supplies & Expenses	11,900
Other services & Charges	322,100
Capital Outlays	0
Total - Animal Control	<u>509,850</u>
Human/Social	
Other services & Charges	331,500
Total - Human/Social	<u>331,500</u>
Economic Development	
Personnel	
Supplies & Expenses	
Other services & Charges	3,916,767
Capital Outlays	4,441,332
Total - Eco. Dev.	<u>8,358,099</u>
Debt Service:	
Principal Payments	867,158
Interest Payments	297,044
Paying Agent Fee	3,000
Total - Debt service	<u>1,167,202</u>
Airport	
Personnel	0
Supplies & Expenses	17,250
Other services & Charges	38,550
Capital Outlays	0
Total - Airport	<u>55,800</u>
Cemetery	
Personnel	955,800
Supplies & Expenses	80,400
Other services & Charges	59,541
Capital Outlays	60,500
Total - Cemetery	<u>1,156,241</u>
Parking Garages	
Personnel	51,280
Supplies & Expenses	1,600
Other services & Charges	49,250
Capital Outlays	0
Total - Parking Garages	<u>102,130</u>
Operating Transfers Out	<u>4,363,621</u>
Total Expenditures & Transfers	<u>78,394,729</u>
Ending Cash Balance	<u>\$6,087,041</u>
TOTAL EXPENDITURES AND ENDING CASH BALANCE	<u>\$84,481,770</u>

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

PARKS & RECREATION FUND:

REVENUES & BEG. CASH:

Inter-governmental Revenues:	
Federal Grants	\$1,000
State Grants	6,660
County Shared Revenues	0
Misc. grants	0
Charges for Services:	
Culture & Recreation	81,820
Miscellaneous	49,000
Transfers-In	2,710,281
Non-Revenue Receipts	0
Total From All Sources	
Other Than taxation	2,848,761
Beginning Cash and	
Investment Balance	830,745
Amount to be Raised by Tax Levy	1,040,000
TOTAL FROM ALL SOURCES	\$4,719,506

EXPENDITURES & ENDING CASH:

Culture & Recreation:	
Personnel	2,591,060
Supplies & Expenses	430,560
Other services & Charges	1,078,801
Capital Outlays	361,488
Total Expenditures	\$4,461,909
Cash balance at End of Year	257,597
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$4,719,506

CITY OF HATTIESBURG, MISSISSIPPI
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MUNICIPAL FIRE PROTECTION FUND:

REVENUES & BEG. CASH:

Inter-governmental Revenues:	
State-Shared Revenues	\$297,500
Charges for Services	96,000
Fines & Forfeits	0
Miscellaneous	5,000
Transfers In	0
Non-Revenue Receipts	
Total From All Sources	
Other Than taxation	398,500
Beginning Cash and	
Investment Balance	991,781
TOTAL FROM ALL SOURCES	\$1,390,281

EXPENDITURES & ENDING CASH:

Public Safety:	
Personnel	\$0
Supplies & Expenses	69,500
Other services & Charges	55,000
Capital Outlays	1,046,288
Lease Debt Service - Principal	40,475
Lease Debt Service - Interest	385
Total Expenditures	\$1,211,648
Cash balance at End of Year	178,633
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$1,390,281

CITY OF HATTIESBURG, MISSISSIPPI
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***SPECIAL STREET
SPECIAL REVENUE FUND:***

REVENUES & BEG. CASH:

Inter-governmental Revenues:

Federal Grants	\$0
State Shared Revenues	95,000
Misc. grants	0
Miscellaneous	2,000
Non-Revenue Receipts	0
Total From All Sources	<u>97,000</u>
Other Than taxation	<u>97,000</u>
Beginning Cash and Investment Balance	296,996
TOTAL FROM ALL SOURCES	<u><u>\$393,996</u></u>

EXPENDITURES & ENDING CASH:

Public Services:

Supplies & Expenses	0
Other services & Charges	393,996
Capital Outlays	0
Total Expenditures	<u>\$393,996</u>
Cash balance at End of Year	<u>0</u>
TOTAL EXPENDITURES AND ENDING CASH BALANCE	<u><u>\$393,996</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
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**WATER & SEWER OPERATION
AND MAINTENANCE FUND:**

REVENUES & BEG. CASH:

Charges for Services	\$65,000
Transfers-In	15,000,000
Miscellaneous	2,000
Non-Revenue Receipts	4,500
Total From All Sources	
Other Than taxation	15,071,500
Beginning Cash and Investment Balance	2,083,766
TOTAL FROM ALL SOURCES	\$17,155,266

EXPENDITURES & ENDING CASH:

Personnel	3,753,020
Supplies & Expenses	1,480,400
Other services & Charges	9,387,860
Capital Outlays	315,000
Lease Debt Service - Principal	0
Lease Debt Service - Interest	0
Total Expenditures	\$14,936,280
Cash balance at End of Year	2,218,986
TOTAL EXPENDITURES AND ENDING CASH BALANCE	\$17,155,266

CITY OF HATTIESBURG, MISSISSIPPI
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BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

**WATER & SEWER BOND
AND INTEREST FUND:**

REVENUES & BEG. CASH:

Transfers-In	\$7,050,000
Miscellaneous	150,000
Non-Revenue Receipts	0
Total Revenues	<u>7,200,000</u>
Beginning Cash Balance	<u>30,318,146</u>
TOTAL FROM ALL SOURCES	<u><u>\$37,518,146</u></u>

EXPENDITURES & ENDING CASH:

Bonds Redeemed	5,730,000
Interest on Bonds	1,145,000
Other Services & Charges	0
Paying Agent Fees	15,000
Total Expenditures	<u>6,890,000</u>
Cash balance at End of Year	<u>30,628,146</u>
TOTAL EXPENDITURES AND ENDING CASH BALANCE	<u><u>\$37,518,146</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

WATER & SEWER ENTERPRISE FUND:

REVENUES & BEG. CASH:

Charges for Services:	
Licenses, Permits & Fees	\$4,000
Miscellaneous	140,000
Metered Water Sales	14,390,000
Taps	190,000
Water Turn-On Fees	70,000
Sewer Connections	45,000
Sewer Charges	14,180,000
Total Revenues	<u>29,019,000</u>
Beginning Fund Balance	<u>0</u>
TOTAL FROM ALL SOURCES	<u><u>\$29,019,000</u></u>

EXPENDITURES & ENDING CASH:

Other Services & Charges	86,000
Principal Redeemed - Notes	0
Interest on Notes	0
Operating Transfers Out	29,004,000
Total Expenditures	<u>\$29,090,000</u>
Cash balance at End of Year	<u><u>(\$71,000)</u></u>
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	<u><u>\$29,019,000</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
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***2020 TAX INCREMENT FINANCING (PLANET FITNESS) BOND & INT
FUND (DEBT SERVICE FUND):***

REVENUES & BEG. CASH:

Interest	\$400
County-Shared Revenues	29,553
Total From All Sources	
Other Than taxation	29,953
Beginning Cash and	
Investment Balance	140,180
Amount to be Raised by Tax Levy	24,894
TOTAL FROM ALL SOURCES	\$195,027

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	39,202
Interest on Bonds	15,245
Paying Agent Fees	0
Transfers Out	0
Other Services & Charges	0
Total Expenditures	\$54,447
Cash balance at End of Year	140,580
TOTAL EXPENDITURES AND ENDING CASH BALANCE	\$195,027

CITY OF HATTIESBURG, MISSISSIPPI
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CITY BOND & INTEREST
FUND (DEBT SERVICE FUND):

REVENUES & BEG. CASH:

County-Shared Revenues	\$0
Interest	12,000
Non-Revenue receipts	0
Transfers-In	2,600,000
Total From All Sources	
Other Than taxation	2,612,000
Beginning Cash and	
Investment Balance	3,848,832
Amount to be Raised by Tax Levy	2,600,000
TOTAL FROM ALL SOURCES	\$9,060,832

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	1,504,178
Interest on Bonds	1,942,910
Other Services & Charges	30,000
Transfers	0
Paying Agent Fees	20,000
Total Expenditures	\$3,497,088
Cash balance at End of Year	5,563,744
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$9,060,832

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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SUPPLEMENTAL ENVIRONMENTAL PROJECT FUND

REVENUES & BEG. CASH:

Transfers In	<u>\$0</u>
Total From All Sources	
Other Than taxation	<u>0</u>
Beginning Cash and	
Investment Balance	<u>233,534</u>
TOTAL FROM ALL SOURCES	<u><u>\$233,534</u></u>

EXPENDITURES & ENDING CASH:

Other Services & Charges	220,800
Operating transfers out	<u>0</u>
Total Expenditures	<u>\$220,800</u>
Cash balance at End of Year	<u>12,734</u>
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	<u><u>\$233,534</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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FINES & FORFEITURES FUND:

REVENUES & BEG. CASH:

State grants	
Charges for Services	0
Fines & Forfeits	0
Miscellaneous	0
Non-Revenue Receipts	0
Total From All Sources	
Other Than taxation	0
Beginning Cash and	
Investment Balance	175,721
TOTAL FROM ALL SOURCES	\$175,721

EXPENDITURES & ENDING CASH:

Public Safety:	
Personnel	0
Supplies & Expenses	45,721
Other services & Charges	30,000
Capital Outlays	100,000
Transfers Out	0
Total Expenditures	\$175,721
Cash balance at End of Year	0
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$175,721

CITY OF HATTIESBURG, MISSISSIPPI
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BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

SERIES 2002 TIF BOND & INTEREST
FUND (Southern Pointe Project):

REVENUES & BEG. CASH:

Interest	\$1,000
Transfers In	\$0
County-Shared Revenues	181,492
Total From All Sources	
Other Than taxation	182,492
Beginning Cash and	
Investment Balance	408,285
Amount to be Raised by Tax Levy	65,646
TOTAL FROM ALL SOURCES	\$656,423

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	195,000
Interest on Bonds	47,409
Other Services & Charges	2,000
Total Expenditures	\$244,409
Cash balance at End of Year	412,014
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$656,423

CITY OF HATTIESBURG, MISSISSIPPI
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For the Fiscal Year Ending September 30, 2025

SERIES 2003 TIF BOND & INTEREST
FUND (Chauvet Square Project):

REVENUES & BEG. CASH:

Interest	\$0
Transfer From Other Funds	0
Total From All Sources	
Other Than taxation	0
Beginning Cash and	
Investment Balance	225,089
Amount to be Raised by Tax Levy	195,000
TOTAL FROM ALL SOURCES	\$420,089

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	165,000
Interest on Bonds	23,850
Other Services & Charges	2,500
Transfers to Other Funds	0
Total Expenditures	\$191,350
Cash balance at End of Year	228,739
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$420,089

CITY OF HATTIESBURG, MISSISSIPPI
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for the fiscal year ended September 30, 2025

SERIES 2007 TIF BOND & INTEREST
FUND (Turtle Creek):

REVENUES & BEG. CASH:

Interest	\$500
County Shared Revenue	\$59,280
Transfer From Other Funds	
Total From All Sources	
Other Than taxation	59,780
Beginning Cash and	
Investment Balance	253,642
Amount to be Raised by Tax Levy	77,000
TOTAL FROM ALL SOURCES	\$390,422

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	110,000
Interest on Bonds	21,770
Other Services & Charges	2,500
Total Expenditures	\$134,270
Cash balance at End of Year	256,152
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$390,422

CITY OF HATTIESBURG, MISSISSIPPI
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For the Fiscal Year Ending September 30, 2024

2008 TIF BOND AND INTEREST FUND
FUND (Lincoln Center):

REVENUES & BEG. CASH:

Interest	\$0
County Shared Revenue	\$0
Transfer From Other Funds	0
Total From All Sources	0
Other Than taxation	0
Beginning Cash and Investment Balance	123,929
Amount to be Raised by Tax Levy	0
TOTAL FROM ALL SOURCES	\$123,929

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	0
Interest on Bonds	0
Other Services & Charges	0
Total Expenditures	\$0
Cash balance at End of Year	123,929
TOTAL EXPENDITURES AND ENDING CASH BALANCE	\$123,929

CITY OF HATTIESBURG, MISSISSIPPI
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BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

2016 TIF BOND AND INTEREST
FUND (*Whispering Pines*):

REVENUES & BEG. CASH:

Interest	\$1,500
County Shared Revenue	\$219,134
Transfer From Other Funds	<u>0</u>
Total From All Sources	
Other Than taxation	<u>220,634</u>
Beginning Cash and	
Investment Balance	804,463
Amount to be Raised by Tax Levy	<u>171,474</u>
TOTAL FROM ALL SOURCES	<u><u>\$1,196,571</u></u>

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	205,000
Interest on Bonds	74,623
Other Services & Charges	<u>2,000</u>
Total Expenditures	<u>\$281,623</u>
Cash balance at End of Year	<u>914,948</u>
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	<u><u>\$1,196,571</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
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BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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2016 TIF BOND AND INTEREST FUND
FUND (Hattiesburg Clinic Midtown):

REVENUES & BEG. CASH:

Interest	\$700
County Shared Revenue	\$41,407
Transfer From Other Funds	0
Total From All Sources	
Other Than taxation	42,107
Beginning Cash and	
Investment Balance	84,705
Amount to be Raised by Tax Levy	33,878
TOTAL FROM ALL SOURCES	\$160,690

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	57,000
Interest on Bonds	18,286
Other Services & Charges	0
Total Expenditures	\$75,286
Cash balance at End of Year	85,404
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$160,690

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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**AIRPORT IMPROVEMENT
SPECIAL REVENUE FUND:**

REVENUES & BEG. CASH:

Federal Grants	\$686,359
State Shared Revenues	185,000
Miscellaneous	24,775
Transfers In	250,000
Non-Revenue Receipts	0
Total From All Sources	
Other Than taxation	1,146,134
Beginning Cash and Investment Balance	771,189
TOTAL FROM ALL SOURCES	\$1,917,323

EXPENDITURES & ENDING CASH:

Public Services:	
Other services & Charges	50,000
Capital Outlays	1,236,134
Total Expenditures	\$1,286,134
Cash balance at End of Year	631,189
TOTAL EXPENDITURES AND ENDING CASH BALANCE	\$1,917,323

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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2015A TIF BOND AND INTEREST FUND
FUND (The Ridge at Turtle Creek):

REVENUES & BEG. CASH:

Interest	\$0
County Shared Revenue	\$29,924
Transfer From Other Funds	<u>0</u>
Total From All Sources	
Other Than taxation	<u>29,924</u>
Beginning Cash and	
Investment Balance	118,884
Amount to be Raised by Tax Levy	<u>89,771</u>
TOTAL FROM ALL SOURCES	<u><u>\$238,579</u></u>

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	84,000
Interest on Bonds	35,695
Other Services & Charges	<u>2,000</u>
Total Expenditures	<u>\$121,695</u>
Cash balance at End of Year	<u>116,884</u>
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	<u><u>\$238,579</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
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BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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2015B TIF BOND AND INTEREST FUND
FUND (Midtown Market):

REVENUES & BEG. CASH:

Interest	\$0
County Shared Revenue	\$13,215
Transfer From Other Funds	0
Total From All Sources	
Other Than taxation	13,215
Beginning Cash and	
Investment Balance	14,035
Amount to be Raised by Tax Levy	9,969
TOTAL FROM ALL SOURCES	\$37,219

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	14,000
Interest on Bonds	6,160
Paying Agent Fees	2,000
Other Services & Charges	0
Total Expenditures	\$22,160
Cash balance at End of Year	15,059
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$37,219

CITY OF HATTIESBURG, MISSISSIPPI
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SERIES 2019 TIF BOND & INT
FUND (ELAM ARMS):

REVENUES & BEG. CASH:

Interest	\$1,500
County Shared Revenue	\$168,711
Transfer From Other Funds	68,900
Total From All Sources	
Other Than taxation	239,111
Beginning Cash and	
Investment Balance	676,840
Amount to be Raised by Tax Levy	132,017
TOTAL FROM ALL SOURCES	\$1,047,968

EXPENDITURES & ENDING CASH:

General Issues:	
Bonds Redeemed	187,000
Interest on Bonds	105,369
Other Services & Charges	4,000
Total Expenditures	\$296,369
Cash balance at End of Year	751,599
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$1,047,968

CITY OF HATTIESBURG, MISSISSIPPI
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MUNICIPAL ROAD & BRIDGE
SPECIAL REVENUE FUND:

REVENUES & BEG. CASH:

Inter-governmental Revenues:	
Federal Grants	\$1,281,000
State Grants	3,802,000
County Shared Revenues	1,950,000
Miscellaneous	0
Transfers In	0
Non-Revenue Receipts	0
Total From All Sources	
Other Than taxation	7,033,000
Beginning Cash and	
Investment Balance	7,472,075
TOTAL FROM ALL SOURCES	\$14,505,075

EXPENDITURES & ENDING CASH:

Public Services:	
Supplies & Expenses	0
Other services & Charges	1,511,000
Capital Outlays	11,687,369
Principal Payments	0
Interest Payments	0
Total Expenditures	\$13,198,369
Cash balance at End of Year	1,306,706
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$14,505,075

CITY OF HATTIESBURG, MISSISSIPPI
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BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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**MASS TRANSIT OPERATING
SPECIAL REVENUE FUND:**

REVENUES & BEG. CASH:

Inter-governmental Revenues:

Federal Grants	\$5,600,612
State Grants	\$85,000
Miscellaneous	1,666
Transfers-In	445,000
Non-Revenue Receipts	0
Total From All Sources	
Other Than taxation	6,132,278
Beginning Cash and	
Investment Balance	(231,230)
Amount to be Raised by Tax Levy	260,000
TOTAL FROM ALL SOURCES	\$6,161,048

EXPENDITURES & ENDING CASH:

Personnel	1,551,100
Supplies & Expenses	250,700
Other services & Charges	326,875
Capital Outlays	3,899,392
Total Expenditures	\$6,028,067
Cash balance at End of Year	132,981
TOTAL EXPENDITURES AND ENDING CASH BALANCE	\$6,161,048

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal year Ending September 30, 2025

WATER & SEWER CONSTRUCTION FUND:

REVENUES & BEG. CASH:

Inter-governmental Revenues:	
Federal Grants	\$0
Miscellaneous	82,000
Transfers-In	5,870,000
Non-Revenue Receipts	1,500,000
Total From All Sources	
Other Than taxation	7,452,000
Beginning Cash and	
Investment Balance	2,048,935
TOTAL FROM ALL SOURCES	\$9,500,935

EXPENDITURES & ENDING CASH:

Other services & Charges	\$2,000,000
Capital Outlays	6,000,000
Transfers	0
Total Expenditures	8,000,000
Cash balance at End of Year	1,500,935
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$9,500,935

CITY OF HATTIESBURG, MISSISSIPPI
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BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
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COMMUNITY CENTERS
SPECIAL REVENUE FUND:

REVENUES & BEG. CASH:

Charges for services:	
Culture & Recreation	\$22,000
State Grants	\$55,000
Miscellaneous	25,000
Transfers-In	853,500
Non-Revenue Receipts	0
Total From All Sources	
Other Than taxation	955,500
Beginning Cash and	
Investment Balance	513,266
TOTAL FROM ALL SOURCES	\$1,468,766

EXPENDITURES & ENDING CASH:

Personnel	651,600
Supplies & Expenses	46,200
Other services & Charges	194,950
Capital Outlays	70,500
Transfers	0
Total Expenditures	\$963,250
Cash balance at End of Year	505,516
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$1,468,766

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

COVID FISCAL RECOVERY FUND:

REVENUES & BEG. CASH:

Federal Grants	0
State Grants	9,923,900
Interest Earnings	0
Total Revenues	<u>9,923,900</u>
Beginning Cash and Investment Balance	8,450,060
TOTAL FROM ALL SOURCES	<u><u>\$18,373,960</u></u>

EXPENDITURES & ENDING CASH:

Supplies	
Other services & Charges	0
Capital Outlays	18,465,810
Transfers Out	0
Total Expenditures	<u>\$18,465,810</u>
Cash balance at End of Year	<u>(91,850)</u>
TOTAL EXPENDITURES AND ENDING CASH BALANCE	<u><u>\$18,373,960</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

COMMUNITY DEVELOPMENT BLOCK GRANT
SPECIAL REVENUE FUND:

REVENUES & BEG. CASH:

Federal Grants	\$2,692,203
Miscellaneous	\$10,000
Transfers In	36,000
Total From All Sources	
Other Than taxation	2,738,203
Beginning Cash and	
Investment Balance	(482,220)
TOTAL FROM ALL SOURCES	\$2,255,983

EXPENDITURES & ENDING CASH:

Personnel	297,400
Supplies & Expenses	8,250
Other services & Charges	920,660
Capital Outlays	1,356,181
Transfers	0
Total Expenditures	\$2,582,491
Cash balance at End of Year	(326,508)
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	\$2,255,983

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

**SPECIAL SALES TAX-PARKS/RECREATION/USM IMPROVEMENTS
FUND**

REVENUES & BEG. CASH:

Intergovernmental Revenues:

Federal Grants	0
State Grants	2,510,000
State Shared Revenues	3,550,000
Contributions	90,000
Transfers In	0
Miscellaneous	52,000
Total Revenues	<u>6,202,000</u>
Beginning Cash and Investment Balance	<u>2,246,915</u>
TOTAL FROM ALL SOURCES	<u><u>\$8,448,915</u></u>

EXPENDITURES & ENDING CASH:

Bonds Redeemed	1,355,000
Interest on Bonds	131,600
Personal Services	57,650
Other services & Charges	1,775,000
Capital Outlays	3,272,476
Transfers to Other Funds	<u>1,850,000</u>
Total Expenditures	<u>\$8,441,726</u>
Cash balance at End of Year	<u>7,189</u>
TOTAL EXPENDITURES AND ENDING CASH BALANCE	<u><u>\$8,448,915</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

***Public Safety Complex/Recreation
Construction Fund:***

REVENUES & BEG. CASH:

Proceeds from Bond Issue	0
Bond Premium	0
Federal Grants	3,064,000
State Grants	0
Transfers	0
Interest Earnings	40,000
Total Revenues	<u>3,104,000</u>
Beginning Cash and Investment Balance	<u>1,714,736</u>
TOTAL FROM ALL SOURCES	<u><u>\$4,818,736</u></u>

EXPENDITURES & ENDING CASH:

Other services & Charges	0
Capital Outlays	3,604,000
Transfers to Other Funds	0
Total Expenditures	<u>\$3,604,000</u>
Cash balance at End of Year	<u>1,214,736</u>
TOTAL EXPENDITURES AND ENDING CASH BALANCE	<u><u>\$4,818,736</u></u>

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

2019 FIRE STATION
CONSTRUCTION FUND:

REVENUES & BEG. CASH:

Interest Earnings	\$25,000
Grant Revenues - State of MS	0
Transfers In	0
Note Proceeds	
Proceeds from General Obligation Bond Issue	0
Total Revenues	<u>25,000</u>
Beginning Cash and	
Investment Balance	<u>1,192,309</u>
TOTAL FROM ALL SOURCES	<u>\$1,217,309</u>

EXPENDITURES & ENDING CASH:

Other services & Charges	0
Capital Outlays	981,300
Transfers Out	0
Total Expenditures	<u>\$981,300</u>
Cash balance at End of Year	<u>236,009</u>
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	<u>\$1,217,309</u>

CITY OF HATTIESBURG, MISSISSIPPI
A MUNICIPALITY
BUDGET OF ESTIMATED REVENUES AND EXPENDITURES
For the Fiscal Year Ending September 30, 2025

INFRASTRUCTURE IMPROVEMENTS - INTERNET SALES TAX FUND:

REVENUES & BEG. CASH:

Intergovernmental Revenue	\$5,500,000
Transfers In	0
Miscellaneous	
Non-Revenue Receipts	
Total Revenues	<u>5,500,000</u>
Beginning Cash and	
Investment Balance	<u>4,342,259</u>
TOTAL FROM ALL SOURCES	<u><u>\$9,842,259</u></u>

EXPENDITURES & ENDING CASH:

Other services & Charges	0
Transfers Out	0
Capital Outlays	<u>8,000,000</u>
Total Expenditures	<u>\$8,000,000</u>
Cash Balance at End of Year	<u>1,842,259</u>
TOTAL EXPENDITURES AND	
ENDING CASH BALANCE	<u><u>\$9,842,259</u></u>



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Ann Jones, Chief Administrative Officer
cc:
Date: Tuesday, March 18, 2025
Re: Adopt a Resolution approving settlement of claim with Grove Transportation Company of Mississippi, LLC., as a doubtful and disputed claim. Authorize the issuance of a manual check for settlement.
File Number: 2025-231
Minute Book #

Summary

Adopt a Resolution approving settlement of claim with Grove Transportation Company of Mississippi, LLC., as a doubtful and disputed claim. Authorize the issuance of a manual check for settlement.

Recommendation Statement

I recommend that this item be approved.

Please place this on the March 18, 2025 City Council meeting for consideration.

RESOLUTION

WHEREAS, on May 21, 1930, the City of Hattiesburg (“the City”) was granted an easement “to construct and maintain as long as necessary a sanitary sewer” across certain property in the City of Hattiesburg, Mississippi, including the property that is located at 1721 Hardy Street, and is owned today by Grove Transportation Company of Mississippi, LLC (“Grove”); and

WHEREAS, a sanitary sewer line was constructed by the City on said property sometime after 1930; and

WHEREAS, in 2024 a linear ground depression measuring approximately four (4) feet in depth, six (6) feet in width and extending forty (40) feet in length was discovered beneath the building located on said property at 1721 Hardy Street; and

WHEREAS, in 2024 the City commissioned Shows, Dearman and Waits (SDW) to conduct an investigation to determine whether the ground depression was caused by the City’s sanitary sewer line; and

WHEREAS, the SDW investigation revealed that (1) the ground depression aligned with the location of the sewer line under the building located at 1721 Hardy Street; and (2) that there were two taps within the sewer line, both of which had a lining failure; and

WHEREAS, based on the investigation, SDW recommended that the sewer service tap be relocated so as to enhance the overall reliability of the sewer system and address maintenance issues in the future; and

WHEREAS, Grove has submitted a detailed cost estimate of \$165,450.00 for repairs to 1721 Hardy Street due to the linear ground depression apparently caused by the City’s sewer line and for temporary office rents and moving costs, and the Council FINDS that this cost estimate is reasonable; and

WHEREAS, whether the City’s sewer line is the *sole* cause of the damages to the building located at 1721 Hardy Street cannot be determined given the time since the sewer line was first installed on the property and maintenance that may have been done on the sewer line up to the present, but, based on the study performed at the City’s request by SDW, it appears likely that the City’s sewer line is, in fact, a primary cause (at least) of the damages to the building located on the property; and

WHEREAS, the Council FINDS that, given the uncertainty of the City’s responsibility for the damage as set forth above, and the cost and uncertainty of litigation, it would be in the best interest of the City to settle the claim of Grove Transport as a doubtful and disputed claim.

NOW, THEREFORE, BE IT RESOLVED that the City shall pay to Grove Transportation Company of Mississippi, LLC, the sum of One Hundred Sixty Five Thousand Four Hundred Fifty Dollars (\$165,450.00) to resolve the dispute. Said payment shall be contingent upon the execution by Grove Transportation Company of Mississippi, LLC, of a full and complete Release of all claims related to or growing out of this dispute.

The above and foregoing resolution, after having been first reduced to writing, was introduced by Council Member_____, seconded by Council Member _____, and was adopted by the following roll call vote, to wit:

YEAS: NAYS:

The President thereby declared the motion carried and the resolution adopted, this the 18th day of March, 2025.

(SEAL)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 18th day of March, 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

RELEASE FROM LIABILITY

In consideration of the sum of One Hundred Sixty Five Thousand Four Hundred and Fifty Dollars (\$165,450.00), in hand paid by the City of Hattiesburg, Mississippi (“the City”), Grove Transportation Company of Mississippi, LLC (“Grove”), does hereby release and forever discharge the City its officers, employees, agents and successors in interest, from any and all actions, causes of action, claims and demands for, upon, or by reason of any damage, loss or injury, which heretofore have been or which hereafter may be sustained related to or growing out of the City’s sanitary sewer line being located on Grove’s property as a result of an easement granted to the City in 1930.

It is further understood and agreed that the payment of One Hundred Sixty Five Thousand Four Hundred and Fifty Dollars (\$165,450.00) by the City to Grove is not to be construed as an admission on the part of the City of any liability whatsoever in consequence of damage to the Grove’s property at 1721 Hardy Street, Hattiesburg, Mississippi, but is, rather, the settlement of a doubtful and disputed claim.

IN WITNESS whereof, the undersigned has affixed his signature on this the _____ day of _____, 2025, having been authorized so to do.

GROVE TRANSPORTATION COMPANY OF MISSISSIPPI, LLC

By: _____



Memorandum

To: Mayor Toby Barker and Members of City Council

From: Ann Jones, Chief Administrative Officer

cc:

Date: Tuesday, March 18, 2025

Re: Adopt a Resolution authorizing the submission of a grant to the Mississippi Department of Wildlife Fisheries and Parks-Recreational Trails Program for the design, support, development and construction of a pedestrian bridge over Gordon's Creek; and authorize the Mayor to execute any and all necessary forms and documents on behalf of the City of Hattiesburg as necessary.
File Number: 2025-233
Minute Book #

Summary

Adopt a Resolution authorizing the submission of a grant to the Mississippi Department of Wildlife Fisheries and Parks-Recreational Trails Program for the design, support, development and construction of a pedestrian bridge over Gordon's Creek; and authorize the Mayor to execute any and all necessary forms and documents on behalf of the City of Hattiesburg as necessary.

Recommendation Statement

I recommend that this resolution be adopted.

Please place this on the March 18, 2025 City Council meeting for consideration.

RESOLUTION

WHEREAS, the City of Hattiesburg, Mississippi, recognizes that community development is a priority concern; and

WHEREAS, the City of Hattiesburg, Mississippi, desires to submit a grant application for the Mississippi Department of Wildlife Fisheries and Parks Recreational Trails Program; and.

WHEREAS, the Local Matching Funds committed are for design support, development and construction of a pedestrian bridge over Gordon’s Creek; and

NOW, THEREFORE, BE IT RESOLVED, that the Mayor of the City of Hattiesburg be authorized to apply for and accept grant funding, and that he be authorized to act as a representative of the City in this matter and to execute all necessary forms and documents on behalf of the City.

The above and foregoing resolution, after having been first reduced to writing, was introduced by Council Member_____, seconded by Council Member _____, and was adopted by the following roll call vote, to wit:

YEAS:

NAYS:

The President thereby declared the motion carried and the resolution adopted, this the 18th day of March, 2025.

(SEAL)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

The above and foregoing Resolution having been submitted to and approved by the Mayor, this the 18th day of March, 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Wiley Quinn, Urban Development Director
cc: Charles Copeland, Division Manager
Date: Tuesday, March 18, 2025
Re: Adopt Resolutions adjudicating and directing the placement as an assessment for the cleanup costs and applicable penalties, not to exceed the values prescribed by State law, against the following properties.
File Number: 2025-204
Minute Book #

Summary

Adopt Resolutions of Adjudication 03 18 2025.

Recommendation Statement

I recommend the adoption of resolutions adjudicating property maintenance costs and penalties for the properties on the attached list.

Please place this on the March 18, 2025 City Council meeting for consideration.



MAYOR
Toby Barker

COUNCIL - WARD ONE

Jeffrey George

COUNCIL - WARD TWO

Deborah Denard Delgado

COUNCIL - WARD THREE

Carter Carroll

COUNCIL - WARD FOUR

Dave Ware

COUNCIL - WARD FIVE

Nicholas Brown

TO: Mayor and City Council

FR: Wiley Quinn, Urban Development Director

DATE: March 18, 2025

RE: Adopt Resolutions of Adjudication

I recommend adopting Resolutions adjudicating and directing the placement as an assessment for the cleanup cost and Title Opinion cost, not to exceed the value of the property by State Law, against the following properties.

Owner	Address	Clean Up Costs	WARD	PPIN
H L & C – Hattiesburg/Mobile, LLC	101 Mohawk Street	\$17,756.50	2	14038
Amos Jr & Aquilla Keys, Secretary of Housing and Urban Development, and Midfirst Bank	114 Saint Joseph Street	\$14,049.20	4	20916

Prepared by:
City of Hattiesburg
Code Enforcement
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601) 554-1027

Return to:
City of Hattiesburg
Council Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601) 545-4551

There came on for consideration at a duly constituted meeting of the Mayor and Members of the City Council of the City of Hattiesburg, Mississippi, held on the 18th day of March, 2025, the following Resolution:

RESOLUTION

ADOPT RESOLUTION ADJUDICATING AND DIRECTING THE PLACEMENT AS AN ASSESSMENT FOR THE CLEANUP COSTS AND APPLICABLE PENALTIES, NOT TO EXCEED THE VALUES PRESCRIBED BY STATE LAW, AGAINST THE FOLLOWING PROPERTY, 101 Mohawk Street

INDEXING INSTRUCTIONS: The property described in this instrument is on part of Lots 3 and 4, T.A. Cahal Subdivision and the NE ¼ of NW ¼, Section 5. Township 4 North, Range 13 West, City of Hattiesburg, Forrest County, Mississippi.

WHEREAS, Section 21-19-11 of the Mississippi Code of 1972, Annotated, authorizes the governing authorities of municipalities to adjudicate applicable penalties, plus the actual cost to the City of Hattiesburg for cleaning properties that have been determined to be in such a state of uncleanness as to be a menace to the public health and safety of the community, when the owner has failed, after appropriate notice, to clean said property; and

WHEREAS, the following property has been cleaned by MSP on behalf of the City.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Council of the City of Hattiesburg, Mississippi:

Section 1. That the City Council of the City of Hattiesburg does hereby adjudicate and direct the placement as an assessment the cleanup cost, plus applicable penalty against the following described property:

OWNER/LEGAL	ADDRESS	PARCEL NUMBER	CLEAN-UP COST
H L & C – Hattiesburg/Mobile, LLC	101 Mohawk Street	2-028B-05-032.00	\$17,756.50
			Total: \$17,756.50

101 Mohawk Street, Hattiesburg, MS 39401, PPIN: 14038, Parcel: 2-028B-05-032.00, and better described as: A part of Lots Three (3) and Four (4) of the T. A. Cahal Subdivision of the City of Hattiesburg, County of Forrest, State of Mississippi as per the map or plat thereof on file in the office of the Chancery Clerk of Forrest County, Mississippi, and more particularly described as follows, to-wit:

ALSO: Beginning at the Northwest corner of the Northeast Quarter of the Northwest Quarter (NE ¼ of NW ¼) of Section Five (5), Township Four (4) North, Range Thirteen (13) West and run East for a distance of 50 feet, and thence run South for a distance of 273.57 feet to and for a point of beginning, and from said Point of beginning continue

South for a distance of 173.57 feet, and thence run West for a distance of 82.85 feet to the said point of beginning, together with all improvements thereon and appurtenances thereunto belonging.

AND ALSO:

A part of Lots 3 and 4 of the T.A. Cahal Subdivision in the City of Hattiesburg, County of Forrest, State of Mississippi, and being more particularly described as commencing at the Northwest corner of the Northeast Quarter of the Northwest Quarter of Section 5, Township 4 North, Range 13 West, in the City of Hattiesburg, County of Forrest, State of Mississippi, and thence run East 50 feet, thence run South 332.57 feet to and for the point of beginning, thence continue South for 51 feet, thence run East 82.85 feet, thence run North 51 feet, thence run West for 82.85 feet to the point of beginning, together with all improvements thereon and appurtenances thereunto belonging.

Section 2. That public interest and necessity requiring same, this resolution shall become effective immediately from and after passage.

Section 3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council Member _____, seconded by Council Member _____, and was adopted by the following, to wit;

YEAS:

NAYS:

ABSENT:

The President thereby declared the motion carried and the Resolution adopted this the 18th day of March, 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

COUNCIL PRESIDENT

The above and foregoing Resolution, having been submitted to and approved by the Mayor, this the 18th day of March, 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

Prepared by:
City of Hattiesburg
Code Enforcement
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601) 554-1027

Return to:
City of Hattiesburg
Council Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601) 545-4551

There came on for consideration at a duly constituted meeting of the Mayor and Members of the City Council of the City of Hattiesburg, Mississippi, held on the 18th day of March, 2025, the following Resolution:

RESOLUTION

ADOPT RESOLUTION ADJUDICATING AND DIRECTING THE PLACEMENT AS AN ASSESSMENT FOR THE CLEANUP COSTS AND APPLICABLE PENALTIES, NOT TO EXCEED THE VALUES PRESCRIBED BY STATE LAW, AGAINST THE FOLLOWING PROPERTY, 114 Saint Joseph Street

INDEXING INSTRUCTIONS: The property described in this instrument is on Lots 8 and 9, Block 5, Mosley & Dozier Survey, City of Hattiesburg, Forrest County, Mississippi.

WHEREAS, Section 21-19-11 of the Mississippi Code of 1972, Annotated, authorizes the governing authorities of municipalities to adjudicate applicable penalties, plus the actual cost to the City of Hattiesburg for cleaning properties that have been determined to be in such a state of uncleanness as to be a menace to the public health and safety of the community, when the owner has failed, after appropriate notice, to clean said property; and

WHEREAS, the following property has been cleaned by MSP on behalf of the City.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Council of the City of Hattiesburg, Mississippi:

Section 1. That the City Council of the City of Hattiesburg does hereby adjudicate and direct the placement as an assessment the cleanup cost, plus applicable penalty against the following described property:

OWNER/LEGAL	ADDRESS	PARCEL NUMBER	CLEAN-UP COST
Amos Jr & Aquilla Keys, Secretary of Housing and Urban Development, and Midfirst Bank	114 Saint Joseph Street	2-029K-09-339.00	\$14,049.20
			Total: \$14,049.20

114 Saint Joseph Street, Hattiesburg, MS 39401, PPIN: 20916, Parcel: 2-029K-09-339.00, and better described as: Lots 8 and 9 in Block 5, of the Mosley & Dozier Survey of the City of Hattiesburg, Forrest County, Mississippi, a subdivision according to a Map or Plat thereof which is on file and of record in the Office of the Chancery Clerk of Forrest County, Mississippi.

Section 2. That public interest and necessity requiring same, this resolution shall become effective immediately from and after passage.

Section 3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The above and foregoing Resolution, after having been first reduced to writing, was introduced by Council Member _____, seconded by Council Member _____, and was adopted by the following, to wit;

YEAS: **NAYS:** **ABSENT:**

The President thereby declared the motion carried and the Resolution adopted this the 18th day of March, 2025.

(S E A L)

ATTEST: **ADOPTED:**

CLERK OF COUNCIL **COUNCIL PRESIDENT**

The above and foregoing Resolution, having been submitted to and approved by the Mayor, this the 18th day of March, 2025.

ATTEST: **APPROVED:**

CITY CLERK **MAYOR**



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Ann Jones, Chief Administrative Officer
cc: Wiley Quinn, Urban Development Director
Date: Tuesday, March 18, 2025
Re: Take from the Table: Release of Lien and Adopt a Resolution adjudicating Nunc Pro Tunc the cleanup costs and penalties for 535 West 4th Street, Hattiesburg, Mississippi, to be \$19,593.50, instead of \$13,918.00.
File Number: 2025-156
Minute Book #

Summary

Release of Lien documents filed in relation to Code Enforcement clean-up assessments.

Recommendation Statement

I recommend executing and recording the release of lien documents for the properties on the attached list.

Please place this on the March 18, 2025 City Council meeting for consideration.



MAYOR
Toby Barker

COUNCIL - WARD ONE
Jeffrey George

COUNCIL - WARD TWO
Deborah Denard Delgado

COUNCIL - WARD THREE
Carter Carroll

COUNCIL - WARD FOUR
Dave Ware

COUNCIL - WARD FIVE
Nicholas Brown

MEMORANDUM

TO: Mayor and City Council

FROM: Wiley Quinn, Code Enforcement Division Manager

DATE: March 4th, 2025

RE: Ratification of Release of Lien Documents

Request for ratification of the release of lien documents due to filing in error for the following properties:

PROPERTY OWNER'S NAME	PROPERTY ADDRESS	PPIN	BOOK/PAGE NUMBER WITH THE FORREST COUNTY CHANCERY CLERK OF THE JUDGMENT TO BE RELEASED	NOTE
Silvia Leticia Isidro Gardona	535 W 4 th Street	14464	Bk: 1449/Pg: 23-24	Resolution 2024-37 \$13,918.00

Prepared by:
City of Hattiesburg
Code Enforcement
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601) 554-1027

Return to:
City of Hattiesburg
City Clerk’s Office
P.O. Box 1898
Hattiesburg, MS 39403-1898
(601) 545-4550

RESOLUTION

INDEXING INSTRUCTIONS: W 100 FT TO BEG BLK 171OT 16 BLK A NORTH TERRACE

WHEREAS, Section 21-19-11 of the Mississippi Code of 1972, Annotated, authorizes the governing authorities of municipalities to adjudicate applicable penalties, plus the actual cost to the City of Hattiesburg for cleaning properties that have been determined to be in such a state of uncleanness as to be a menace to the public health and safety of the community, when the owner has failed, after appropriate notice, to clean said property; and

WHEREAS, the following property has been cleaned by Sunshine Construction & MSP Enterprises on behalf of the City.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Council of the City of Hattiesburg, Mississippi:

Section 1. That the City Council of the City of Hattiesburg does hereby adjudicate and direct the placement as an assessment the cleanup cost, plus applicable penalty against the following described property:

OWNER/LEGAL	ADDRESS	PARCEL NUMBER	CLEAN-UP COST
Silvia Leticia Isidro Gardona/Adair Asset Management	535 W. 4th Street	2-029F-04-192.00	
<u>\$19,593.50</u>			Total: \$19,593.50

PARCEL: 2-029F-04-192.00, PPIN: 14464, 535 W. 4th Street, Hattiesburg, MS, 39401 and better described as: Tax 2-029F-04-192.00, also described as PT 3 BEG 30 FT N & 313.45 FT E OF SWCOR SE ¼ SEC 4T RG 4 R 13W N 281 FT E 97.5 FT S 272.5 FT TO 4TH ST W 100 FT TO BEG BLK

Section 2. That public interest and necessity requiring same, this resolution shall become Effective immediately from and after passage.

Section 3. A copy of this Resolution will be certified and recorded in the Chancery Clerk's Office of Forrest County, Mississippi.

The foregoing Resolution having been reduced to writing, the same was introduced by Council Person _____, seconded by Council Person _____ and was adopted by the

Following vote, to-wit:

YEAS:

NAYS:

The President thereby declared the motion carried and the Resolution adopted this the 18th March 2025.

(S E A L)

ATTEST:

ADOPTED:

CLERK OF COUNCIL

PRESIDENT

The above and foregoing Resolution, having been submitted to and approved by the Mayor, this the 18th March 2025.

ATTEST:

APPROVED:

CITY CLERK

MAYOR

STATE OF MISSISSIPPI

COUNTY OF FORREST

RELEASE

KNOW ALL MEN BY THESE PRESENT: That the CITY OF HATTIESBURG, having previously filed a Resolution as a result of code enforcement action against certain property in the following location:

DATE FILED:	05/07/2024
BOOK:	1449
PAGE:	23-24
BENEFICIARY:	City of Hattiesburg
AMOUNT:	13,918.00
NAME:	Silvia Leticia Isidro Gardona

in the office of the Chancery Clerk of Forrest County, Mississippi, is now fully paid and satisfied; and the Clerk of Chancery Court of Forrest County, Mississippi, is hereby authorized to enter satisfaction and certificate of payment in full upon said instrument and that this order be recorded in the records of said County as is provided by law.

535 W 4th Street, Hattiesburg, MS 39401, PPIN: 14464, Parcel: 2-029F-04-192.00, and better described as: A part of the Southwest Quarter of the Southeast Quarter (SW ¼ of SE ¼) of Section Four (4), Township (4) North, Range Thirteen (13) West in the County of Forrest, State of Mississippi, more particularly described as follows, to-wit:

Commencing at the concrete monument in Fourth Street set and established as and for the Southwest corner of the Southeast Quarter of the above described Section Four (4), and run thence East along the Section Four (4), for a distance of 313.45 feet, thence North for a distance of 30 feet to the North margin of Fourth Street to and for a point of beginning, thence North and along an old fence line for a distance of 281 feet to the right-of-way of the Mississippi Central Railroad, thence easterly and along the said railroad right-of-way for a distance of 97.5 feet to the corner of an old fence, thence South and along the said fence 272.5 feet to the North margin of Fourth Street, thence West along Fourth Street for a distance of 100 feet to the point of beginning, and being the identical property purchased by Charles H. Scoville, from W. O. Rea, Receiver of the Building and Loan Association of Jackson, Mississippi, on the 6th day of June, 1936, as per deed filed and recorded in Book 49, Pages 561 and 562 of the Land Deed Records of Forrest County, Mississippi, on the 8th of June, 1936, being a part of Lot Three (3) in Block 171 of the CRITTENDEN SURVEY of the City of Hattiesburg, County of Forrest, State of Mississippi.

IN WITNESS WHEREOF, this instrument is executed on this the 4th day of March, 2025.

CITY OF HATTIESBURG

BY: _____
TOBY BARKER, MAYOR

ATTEST:

KERMAS EATON

STATE OF MISSISSIPPI

COUNTY OF FORREST

Personally appeared before me, the undersigned authority in and for said county and state, on this the 4th day of March, 2025, the within named **TOBY BARKER**, who acknowledged that he is the **MAYOR OF THE CITY OF HATTIESBURG**, and that for and on behalf of said corporation, and as its act and deed he executed the above and foregoing instrument, after first having been duly authorized by said corporation so to do.

NOTARY PUBLIC

MY COMMISSION EXPIRES:



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Ann Jones, Chief Administrative Officer
cc: Wiley Quinn, Urban Development Director
Date: Tuesday, March 18, 2025
Re: Approve Release of Lien documents filed in relation to Code Enforcement clean-up assessments per attached memo, authorize the Mayor to execute and record the same.
File Number: 2025-221
Minute Book #

Summary

Approval of Release of Lien documents filed in relation to Code Enforcement clean-up assessments.

Recommendation Statement

Approval of Release of Lien documents filed in relation to Code Enforcement clean-up assessments.

Please place this on the March 18, 2025 City Council meeting for consideration.



MAYOR
Toby Barker

COUNCIL - WARD ONE
Jeffrey George

COUNCIL - WARD TWO
Deborah Denard Delgado

COUNCIL - WARD THREE
Carter Carroll

COUNCIL - WARD FOUR
Dave Ware

COUNCIL - WARD FIVE
Nicholas Brown

MEMORANDUM

TO: Mayor and City Council

FROM: Wiley Quinn, Urban Development Director

DATE: March 18th, 2025

RE: Ratification of Release of Lien Documents

Request for ratification of the release of lien documents for the following properties:

PROPERTY OWNER'S NAME	PROPERTY ADDRESS	PPIN	BOOK/PAGE NUMBER WITH THE FORREST COUNTY CHANCERY CLERK OF THE JUDGMENT TO BE RELEASED	NOTE
Kelsie Stanley	200 Saint Paul Street	20911	Bk: 1316, Pg: 377-378	Resolution 2019-165 \$10,006.64
Kelsie Stanley	200 Saint Paul Street	20911	Bk: 1402, Pg: 59-60	Resolution 2022-83 \$4,414.00
Kelsie Stanley	200 Saint Paul Street	20911	Bk: 1419, Pg: 521-522	Resolution 2023-38 \$1,967.00
Kelsie Stanley	200 Saint Paul Street	20911	Bk: 1449, Pg: 17-18	Resolution 2024-34 \$14,361.34

STATE OF MISSISSIPPI

COUNTY OF FORREST

RELEASE

KNOW ALL MEN BY THESE PRESENT: That the CITY OF HATTIESBURG, having previously filed a Resolution as a result of code enforcement action against certain property in the following location:

DATE FILED:	05/21/2019
BOOK:	1316
PAGE:	377-378
BENEFICIARY:	City of Hattiesburg
AMOUNT:	10,006.64
NAME:	Kelsie Stanley

in the office of the Chancery Clerk of Forrest County, Mississippi, is now fully paid and satisfied; and the Clerk of Chancery Court of Forrest County, Mississippi, is hereby authorized to enter satisfaction and certificate of payment in full upon said instrument and that this order be recorded in the records of said County as is provided by law.

200 St Paul Street, Hattiesburg, MS 39401, PPIN: 20911, Parcel: 2-029K-09-391.00, and better described as: The South Forty Five (45) feet of Lots 1, 2, 3, and 4; the North Twenty-Six (26) feet of Lots 21 and 22; all of Lot 24; and a part of Lot 23 described as beginning at the SE corner of Lot 23 and run West of 11.67 feet, thence run North for 77 feet, thence run West for 18 feet, thence run North for 42 feet, thence run West for 18.66 feet to the West line of Lot 23, thence run North for 26 feet to the NW corner of lot 23, thence run East for 48.33 feet to the NE corner of Lot 23, thence run South for 145 feet to the beginning; all of the above described property being in Block 5 of the Moseley & Dozier Survey of Addition to the City of Hattiesburg, Forrest County, Mississippi, as per the official map or plat thereof in the office of the Chancery Clerk of Forrest County, Mississippi; all together with all improvements thereon and appurtenances thereunto belonging.

IN WITNESS WHEREOF, this instrument is executed on this the 18th day of March, 2025.

CITY OF HATTIESBURG

BY: _____
TOBY BARKER, MAYOR

ATTEST:

KERMAS EATON

STATE OF MISSISSIPPI

COUNTY OF FORREST

Personally appeared before me, the undersigned authority in and for said county and state, on this the 18th day of March, 2025, the within named **TOBY BARKER**, who acknowledged that he is the **MAYOR OF THE CITY OF HATTIESBURG**, and that for and on behalf of said corporation, and as its act and deed he executed the above and foregoing instrument, after first having been duly authorized by said corporation so to do.

NOTARY PUBLIC

MY COMMISSION EXPIRES:

STATE OF MISSISSIPPI

COUNTY OF FORREST

RELEASE

KNOW ALL MEN BY THESE PRESENT: That the CITY OF HATTIESBURG, having previously filed a Resolution as a result of code enforcement action against certain property in the following location:

DATE FILED:	08/02/2022
BOOK:	1402
PAGE:	59-60
BENEFICIARY:	City of Hattiesburg
AMOUNT:	4,414.00
NAME:	Kelsie Stanley

in the office of the Chancery Clerk of Forrest County, Mississippi, is now fully paid and satisfied; and the Clerk of Chancery Court of Forrest County, Mississippi, is hereby authorized to enter satisfaction and certificate of payment in full upon said instrument and that this order be recorded in the records of said County as is provided by law.

200 St Paul Street, Hattiesburg, MS 39401, PPIN: 20911, Parcel: 2-029K-09-391.00, and better described as: The South Forty Five (45) feet of Lots 1, 2, 3, and 4; the North Twenty-Six (26) feet of Lots 21 and 22; all of Lot 24; and a part of Lot 23 described as beginning at the SE corner of Lot 23 and run West of 11.67 feet, thence run North for 77 feet, thence run West for 18 feet, thence run North for 42 feet, thence run West for 18.66 feet to the West line of Lot 23, thence run North for 26 feet to the NW corner of lot 23, thence run East for 48.33 feet to the NE corner of Lot 23, thence run South for 145 feet to the beginning; all of the above described property being in Block 5 of the Moseley & Dozier Survey of Addition to the City of Hattiesburg, Forrest County, Mississippi, as per the official map or plat thereof in the office of the Chancery Clerk of Forrest County, Mississippi; all together with all improvements thereon and appurtenances thereunto belonging.

IN WITNESS WHEREOF, this instrument is executed on this the 18th day of March, 2025.

CITY OF HATTIESBURG

BY: _____
TOBY BARKER, MAYOR

ATTEST:

STATE OF MISSISSIPPI

COUNTY OF FORREST

Personally appeared before me, the undersigned authority in and for said county and state, on this the 18th day of March, 2025, the within named **TOBY BARKER**, who acknowledged that he is the **MAYOR OF THE CITY OF HATTIESBURG**, and that for and on behalf of said corporation, and as its act and deed he executed the above and foregoing instrument, after first having been duly authorized by said corporation so to do.

NOTARY PUBLIC

MY COMMISSION EXPIRES:

STATE OF MISSISSIPPI

COUNTY OF FORREST

RELEASE

KNOW ALL MEN BY THESE PRESENT: That the CITY OF HATTIESBURG, having previously filed a Resolution as a result of code enforcement action against certain property in the following location:

DATE FILED:	02/21/2023
BOOK:	1419
PAGE:	521-522
BENEFICIARY:	City of Hattiesburg
AMOUNT:	1,967.00
NAME:	Kelsie Stanley

in the office of the Chancery Clerk of Forrest County, Mississippi, is now fully paid and satisfied; and the Clerk of Chancery Court of Forrest County, Mississippi, is hereby authorized to enter satisfaction and certificate of payment in full upon said instrument and that this order be recorded in the records of said County as is provided by law.

200 St Paul Street, Hattiesburg, MS 39401, PPIN: 20911, Parcel: 2-029K-09-391.00, and better described as: The South Forty Five (45) feet of Lots 1, 2, 3, and 4; the North Twenty-Six (26) feet of Lots 21 and 22; all of Lot 24; and a part of Lot 23 described as beginning at the SE corner of Lot 23 and run West of 11.67 feet, thence run North for 77 feet, thence run West for 18 feet, thence run North for 42 feet, thence run West for 18.66 feet to the West line of Lot 23, thence run North for 26 feet to the NW corner of lot 23, thence run East for 48.33 feet to the NE corner of Lot 23, thence run South for 145 feet to the beginning; all of the above described property being in Block 5 of the Moseley & Dozier Survey of Addition to the City of Hattiesburg, Forrest County, Mississippi, as per the official map or plat thereof in the office of the Chancery Clerk of Forrest County, Mississippi; all together with all improvements thereon and appurtenances thereunto belonging.

IN WITNESS WHEREOF, this instrument is executed on this the 18th day of March, 2025.

CITY OF HATTIESBURG

BY: _____
TOBY BARKER, MAYOR

ATTEST:

KERMAS EATON

STATE OF MISSISSIPPI

COUNTY OF FORREST

Personally appeared before me, the undersigned authority in and for said county and state, on this the 18th day of March, 2025, the within named **TOBY BARKER**, who acknowledged that he is the **MAYOR OF THE CITY OF HATTIESBURG**, and that for and on behalf of said corporation, and as its act and deed he executed the above and foregoing instrument, after first having been duly authorized by said corporation so to do.

NOTARY PUBLIC

MY COMMISSION EXPIRES:

STATE OF MISSISSIPPI

COUNTY OF FORREST

RELEASE

KNOW ALL MEN BY THESE PRESENT: That the CITY OF HATTIESBURG, having previously filed a Resolution as a result of code enforcement action against certain property in the following location:

DATE FILED:	05/07/2024
BOOK:	1449
PAGE:	17-18
BENEFICIARY:	City of Hattiesburg
AMOUNT:	14,361.34
NAME:	Kelsie Stanley

in the office of the Chancery Clerk of Forrest County, Mississippi, is now fully paid and satisfied; and the Clerk of Chancery Court of Forrest County, Mississippi, is hereby authorized to enter satisfaction and certificate of payment in full upon said instrument and that this order be recorded in the records of said County as is provided by law.

200 St Paul Street, Hattiesburg, MS 39401, PPIN: 20911, Parcel: 2-029K-09-391.00, and better described as: The South Forty Five (45) feet of Lots 1, 2, 3, and 4; the North Twenty-Six (26) feet of Lots 21 and 22; all of Lot 24; and a part of Lot 23 described as beginning at the SE corner of Lot 23 and run West of 11.67 feet, thence run North for 77 feet, thence run West for 18 feet, thence run North for 42 feet, thence run West for 18.66 feet to the West line of Lot 23, thence run North for 26 feet to the NW corner of lot 23, thence run East for 48.33 feet to the NE corner of Lot 23, thence run South for 145 feet to the beginning; all of the above described property being in Block 5 of the Moseley & Dozier Survey of Addition to the City of Hattiesburg, Forrest County, Mississippi, as per the official map or plat thereof in the office of the Chancery Clerk of Forrest County, Mississippi; all together with all improvements thereon and appurtenances thereunto belonging.

IN WITNESS WHEREOF, this instrument is executed on this the 18th day of March, 2025.

CITY OF HATTIESBURG

BY: _____
TOBY BARKER, MAYOR

ATTEST:

KERMAS EATON

STATE OF MISSISSIPPI

COUNTY OF FORREST

Personally appeared before me, the undersigned authority in and for said county and state, on this the 18th day of March, 2025, the within named **TOBY BARKER**, who acknowledged that he is the **MAYOR OF THE CITY OF HATTIESBURG**, and that for and on behalf of said corporation, and as its act and deed he executed the above and foregoing instrument, after first having been duly authorized by said corporation so to do.

NOTARY PUBLIC

MY COMMISSION EXPIRES:



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Kermas Eaton, City Clerk
cc:
Date: Tuesday, March 18, 2025
Re: Approve Amended Software Agreement between the City of Hattiesburg and Tyler Technologies for the Community Development Portal and authorize the Mayor to execute the same.
File Number: 2025-234
Minute Book #

Summary

Recommendation Statement

I recommend approval of the amended Agreement.

Please place this on the March 18, 2025 City Council meeting for consideration.



Amended Software Service Agreement

This Software Service Amended Agreement (**the Amendment**) between Tyler Technologies, Inc. and the City of Hattiesburg (**the Client**).

Whereas, the Amendment is intended to revise the Software Service Agreement (**the Agreement**) previously approved and simultaneously executed between the parties by adding to the Agreement the terms and conditions listed below. This Amendment therefore serves to supplement and is hereby appended to the Agreement as originally approved on December 17, 2024.

Section F(1) of the Agreement is deleted in its entirety and replaced with the following:

“Term. The initial term of this Agreement is equal to the number of years indicated for SaaS Services in Exhibit A, commencing on April 1, 2025, unless earlier terminated as set forth below. If no duration is indicated in Exhibit A, the initial term is one (1) year. Upon expiration of the initial term, this Agreement will renew automatically for additional one (1) year renewal terms at our then-current SaaS Fees unless terminated in writing by either party at least sixty (60) days prior to the end of the then-current renewal term. Your right to access or use the Tyler Software and the SaaS Services will terminate at the end of this Agreement.”

Exhibit B Section 1 of the Agreement is deleted in its entirety and replaced with the following:

“SaaS Fees.

- 1.1 SaaS Fees shall be invoiced as follows:
 - 1.1.1 Community Development Suite Per User, Enterprise Service Requests, eReviews, Civic Access - Community Development, Enterprise Permitting & Licensing Mobile, Advanced Automation Bundle, Core Foundation Bundle, GIS: April 1, 2025;
 - 1.1.2 Community Development Suite Additional User, Civic Access – Business Management, Decision Engine, Report Toolkit: July 1, 2025, prorated through the end of the then-current term;
- 1.2 Your annual SaaS fees for the initial term are set forth in the Investment Summary. Upon expiration of the initial term, your annual SaaS fees will be at our then-current rates.”

IN WITNESS WHEREOF, a duly authorized representative of each party has executed this Amendment as of the date(s) set forth below:

(signatures on following page)



Tyler Technologies, Inc.

By: _____

Name: _____

Title: _____

Date: _____

Address for Notices:

Tyler Technologies, Inc.
One Tyler Drive
Yarmouth, ME 04096
Attention: Chief Legal Officer

City of Hattiesburg, Mississippi

By: _____

Name: _____

Title: _____

Date: _____

Address for Notices:

City of Hattiesburg
City Hall, 200 Forrest Street
Hattiesburg, MS 39401
Attention: _____



Memorandum

To: Mayor Toby Barker and Members of City Council

From: Marybeth Bergin, Director of Transportation and Engineering

cc:

Date: Tuesday, March 18, 2025

Re: Approve Purchase Agreement with Bogue Homa Mitigation Bank for mitigation credits required by U.S. Army Corps of Engineers Permit SAM-2023-00710-CSP for the Lincoln Road Detention Facility Project for the amount of \$121,280.00; Authorize Mayor to execute said agreement in duplicate and issue manual check in payment thereof.
File Number: 2025-222
Minute Book #

Summary

Approve Purchase Agreement with Bogue Homo Mitigation Bank for mitigation credits required by U.S. Army Corps of Engineers Permit SAM-2023-00710-CSP for the Lincoln Road Detention Facility Project for the amount of \$121,280.00; Authorize Mayor to execute said agreement in duplicate and issue manual check in payment thereof.

Recommendation Statement

I recommend approval of this item.

Please place this on the March 18, 2025 City Council meeting for consideration.

BOGUE HOMO MITIGATION BANK
AGREEMENT TO PURCHASE MITIGATION CREDITS

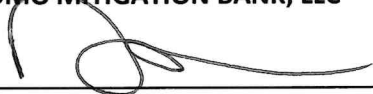
The following Purchase Agreement is made between the Bogue Homo Mitigation Bank, LLC (hereinafter BHMB) and the City of Hattiesburg (hereinafter PERMITTEE).

The BHMB will provide the PERMITTEE **3.79 WRAP credits** (0.479 WRAP x 7.91 impact acres) to offset the impacts as required by PERMITTEE'S U.S. Army Corps of Engineers Permit **SAM-2023-00710-CSP** for the proposed Lincoln Road detention facility project. The BHMB is located within the same 8-Digit HUC as the proposed impacts (03170005) therefore no proximity factor is required.

The PERMITTEE will pay the BHMB a total of **\$121,280** for the above-referenced mitigation credits. The BHMB will provide proof of mitigation purchase to the PERMITTEE and the USACE Project Manager upon receipt of payment. This purchase agreement is void after 60 days from the date of signature.

This Agreement is made this 7 day of March 2025.

BOUGE HOMO MITIGATION BANK, LLC

By: 

PERMITTEE

By: _____

Address: _____

Phone: _____ Email: _____

BHMB will provide confirmation of credit purchase to the Corps of Engineers via email within one business day *if payment is made by wire transfer, cashier's check or other certified funds.*

Personal and company checks are subject to the following clearing period:

Checks drawn on _____ Bank: 1 business day

Checks drawn on other local banks: 2 business days

Checks drawn on out of town banks: Up to 7 business days

REMIT PAYMENT TO:

Bogue Homo Mitigation Bank, LLC

P.O. Box 1197

Laurel, MS 39441

Contact number (601-649-2007)



Memorandum

To: Mayor Toby Barker and Members of City Council

From: Marybeth Bergin, Director of Transportation and Engineering

cc:

Date: Tuesday, March 18, 2025

Re: Acknowledge bids received on January 23, 2025, for the Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation Project; Accept the bid from Suncoast Infrastructure, Inc. in the amount of \$2,828,420.00 as the lowest and best bid; and Authorize the Mayor to execute construction contracts and all necessary agreements for related purposes.
File Number: 2025-224
Minute Book #

Summary

Acknowledge bids received on January 23, 2025, for the Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation Project; Accept the bid from Suncoast Infrastructure, Inc. in the amount of \$2,828,420.00 as the lowest and best bid; and Authorize the Mayor to execute construction contracts and all necessary agreements for related purposes.

Recommendation Statement

I recommend approval of this item.

Please place this on the March 18, 2025 City Council meeting for consideration.



Engineering Progress

January 23, 2025

City of Hattiesburg
P.O. Box 1898
Hattiesburg, MS 39403

Attn: Marybeth Bergin, P.E.

**Re: Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation
City of Hattiesburg, MS**

Dear Marybeth:

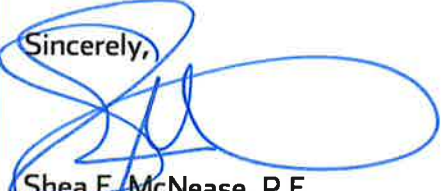
I have certified the enclosed bid tabulation which represents all bids that were received and opened at 10:00 a.m. on January 23, 2025, for the above referenced project.

Suncoast Infrastructure, Inc of Florence, MS was the lowest Total Base Bid and Additive Alternate No.1 bidder in the amount of Two Million, Eight Hundred Twenty-Eight Thousand, Four Hundred Twenty Dollars and Zero Cents (\$2,828,420.00).

Enclosed are all original bids.

Should you have any questions and/or comments, please, do not hesitate to contact me.

Sincerely,



Shea E. McNease, P.E.
Project Engineer

/lr

BID TAB

January 23, 2025

Project: Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation**Project No.** 12243**Suncoast Infrastructure, Inc.**P.O. Box 397
Florence, MS 39073**BLD Services, LLC**2424 Tyler Street
Kenner, LA 70062**BASE BID**

Item No.	Item Description	Quantity	Unit	Unit Price	Amount	Unit Price	Amount
1	4" Sanitary Sewer Service Cleanout	111	EA	\$2,950.00	\$327,450.00	\$3,000.00	\$333,000.00
2	4" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All	1110	LF	\$120.00	\$133,200.00	\$150.00	\$166,500.00
3	6" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All	1500	LF	\$145.00	\$217,500.00	\$180.00	\$270,000.00
4	Existing Sewer Service Investigation	108	EA	\$925.00	\$99,900.00	\$795.00	\$85,860.00
5	6" & Under - Service Lateral - Cleaning, CCTV & Cured-In-Place-Pipe	111	EA	\$4,500.00	\$499,500.00	\$4,200.00	\$466,200.00
6	6" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	520	LF	\$44.00	\$22,880.00	\$60.00	\$31,200.00
7	8" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	7720	LF	\$46.00	\$355,120.00	\$52.00	\$401,440.00
8	10" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	2440	LF	\$51.00	\$124,440.00	\$58.00	\$141,520.00
9	12" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	1100	LF	\$62.00	\$68,200.00	\$67.00	\$73,700.00
10	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (0'-6' Depth) (incl necessary fittings & pavement repair)	7	EA	\$4,750.00	\$33,250.00	\$4,896.00	\$34,272.00
11	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (6'-8' Depth) (incl necessary fittings & pavement repair)	3	EA	\$6,700.00	\$20,100.00	\$6,924.00	\$20,772.00
12	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (10'-12' Depth) (incl necessary fittings & pavement repair)	2	EA	\$8,700.00	\$17,400.00	\$9,000.00	\$18,000.00
13	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (12'-14' Depth) (incl necessary fittings & pavement repair)	1	EA	\$12,000.00	\$12,000.00	\$13,020.00	\$13,020.00
14	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (16'-18' Depth) (incl necessary fittings & pavement repair)	1	EA	\$16,000.00	\$16,000.00	\$17,100.00	\$17,100.00
15	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (0'-6' Depth) (incl necessary fittings & pavement repair)	1	EA	\$5,000.00	\$5,000.00	\$5,100.00	\$5,100.00
16	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (8'-10' Depth) (incl necessary fittings & pavement repair)	2	EA	\$6,950.00	\$13,900.00	\$7,200.00	\$14,400.00
17	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (12'-14' Depth) (incl necessary fittings & pavement repair)	1	EA	\$12,000.00	\$12,000.00	\$13,200.00	\$13,200.00

BID TAB

January 23, 2025

Project: Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation**Project No.** 12243

Suncoast Infrastructure, Inc.

P.O. Box 397
Florence, MS 39073

BLD Services, LLC

2424 Tyler Street
Kenner, LA 70062**BASE BID**

Item No.	Item Description	Quantity	Unit
18	Manhole Rehabilitation	400	Vert. Ft.
19	Adjustment of Manhole Top	3	EA
20	Water Tight Manhole Cover and Frame	7	EA
21	Protruding Tap Removal	80	EA
22	Solid Sod (Incl. Sod, Top Soil, Fertilizer, Watering, etc.)	80	SY
23	Landscape Restoration (Inc. Top Soil, Plants, Mulch, Watering, etc.)	515	SF
24	Clearing and Grubbing	1	Acre
25	Temporary Silt Fence**	250	LF
26	20"Ø Wattles**	125	LF
27	Maintenance of Traffic	1	LS
28	Mobilization	1.0	LS

Base Bid Subtotal:

Unit Price	Amount
\$300.00	\$120,000.00
\$2,300.00	\$6,900.00
\$1,600.00	\$11,200.00
\$150.00	\$12,000.00
\$30.00	\$2,400.00
\$60.00	\$30,900.00
\$10,000.00	\$5,000.00
\$8.00	\$2,000.00
\$29.00	\$3,625.00
\$125,270.00	\$125,270.00
\$251,860.00	\$251,860.00
\$2,548,995.00	

Unit Price	Amount
\$465.00	\$186,000.00
\$2,400.00	\$7,200.00
\$1,800.00	\$12,600.00
\$375.00	\$30,000.00
\$30.00	\$2,400.00
\$60.00	\$30,900.00
\$9,000.00	\$4,500.00
\$7.80	\$1,950.00
\$30.00	\$3,750.00
\$54,600.00	\$54,600.00
\$225,000.00	\$225,000.00
\$2,664,184.00	

ADDITIVE ALTERNATE 1

Item No.	Item Description	Quantity	Unit
AA1	48" Precast Concrete Sewer Manhole (0' - 6'), Doghouse Type	1	EA
AA2	48" Precast Concrete Sewer Manhole (8' - 10'), Doghouse Type	1	EA
AA3	Demolition and Removal of Existing Manholes (All Types)	1	EA
AA4	4" Sanitary Sewer Service Cleanout	9	EA
AA5	6" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All Depths)	150	LF
AA6	Existing Sewer Service Investigation	12	EA
AA7	6" & Under - Service Lateral - Cleaning, CCTV & Cured-In-Place-Pipe	9	EA
AA8	6" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	407	LF
AA9	8" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	404	LF
AA10	10" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	670	LF
AA11	18" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	156	LF

Unit Price	Amount
\$9,800.00	\$9,800.00
\$15,700.00	\$15,700.00
\$2,500.00	\$2,500.00
\$2,900.00	\$26,100.00
\$150.00	\$22,500.00
\$925.00	\$11,100.00
\$4,890.00	\$44,010.00
\$55.00	\$22,385.00
\$60.00	\$24,240.00
\$65.00	\$43,550.00
\$175.00	\$27,300.00

Unit Price	Amount
\$10,200.00	\$10,200.00
\$16,200.00	\$16,200.00
\$2,580.00	\$2,580.00
\$3,000.00	\$27,000.00
\$180.00	\$27,000.00
\$795.00	\$9,540.00
\$4,200.00	\$37,800.00
\$60.00	\$24,420.00
\$52.00	\$21,008.00
\$58.00	\$38,860.00
\$260.00	\$40,560.00

BID TAB

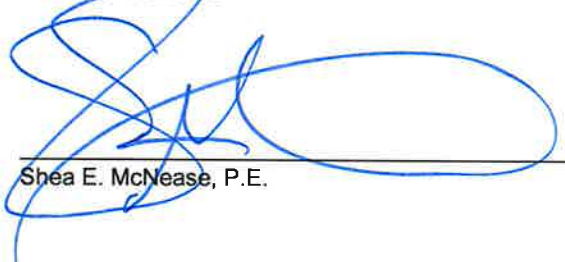
January 23, 2025

Project: Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation**Project No.** 12243**ADDITIVE ALTERNATE 1**

Item No.	Item Description	Quantity	Unit
AA12	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (8'-10' Depth) (incl necessary fittings & pavement repair)	1	EA
AA13	Manhole Rehabilitation	79	Vert. Ft.
AA14	Solid Sod (Incl. Sod, Top Soil, Fertilizer, Watering, etc.)	5	SY
AA15	Landscape Restoration (Inc. Top Soil, Plants, Mulch, Watering, etc.)	10	SF

Additive Alternate No 1 Subtotal:**BID TOTAL:****Suncoast Infrastructure, Inc.**P.O. Box 397
Florence, MS 39073**BLD Services, LLC**2424 Tyler Street
Kenner, LA 70062

Unit Price	Amount	Unit Price	Amount
\$7,000.00	\$7,000.00	\$7,200.00	\$7,200.00
\$285.00	\$22,515.00	\$465.00	\$36,735.00
\$29.00	\$145.00	\$30.00	\$150.00
\$58.00	\$580.00	\$60.00	\$600.00
\$279,425.00		\$299,853.00	
\$2,828,420.00		\$2,964,037.00	

Comments:
Shea E. McNease, P.E.

This is to certify that I have checked the tabulation of the bids received by the City of Hattiesburg on January 23, 2025, and that said tabulation is true and correct to the best of my belief.

PROPOSAL FORM

I (we) agree to begin work within (10) calendar days after the issuance of Notice to Proceed, and to complete the work within the following list of calendar days thereafter:

- Base Bid – 90 Days
- Additive Alternate No. 1 – 110 Days

It is understood that the quantities of work listed for unit prices bid are approximate and are intended to merely indicate the general scope of the various items entering into the complete work and for comparison of bids. It is further understood and agreed that the Owner may increase or decrease the quantities listed in the Proposal and that no change in the unit prices proposed shall be occasioned thereby.

The undersigned further agrees that the unit and lump sum prices quoted include all items of work required or necessary for the accomplishment of the projected work and that these items include all work indicated on the Plans and Specifications for which no specific pay items have been established.

The undersigned certifies that the bid prices contained herein have been carefully checked and are submitted as correct and final.

If within sixty (60) days the scheduled closing time for receipt of bids, this Proposal is accepted, the undersigned will execute a formal contract within ten (10) days after official notification thereof, will deliver a surety bond for the faithful performance of this contract, and will complete the work within the time specified from the date of execution of the contract.

Respectfully Submitted,

BLD Services, LLC
Bidding Firm


Authorized by.

Jacob Trapani, Vice President

2424 Tyler Street, Kenner, LA 70062
ADDRESS

FOUNTAINBLEAU APARTMENTS AREA & MISSISSIPPI HALL AREA SEWER REHABILITATION

BASE BID					
Item	Description	Unit	Quantity	Unit Price	Extension
1	4" Sanitary Sewer Service Cleanout	EA	111	3,000.00	333,000.00
2	4" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All Depths)*	LF	1,110	150.00	166,500.00
3	6" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All Depths)	LF	1,500	180.00	270,000.00
4	Existing Sewer Service Investigation	EA	108	795.00	85,860.00
5	6" & Under - Service Lateral - Cleaning, CCTV & Cured-In-Place-Pipe	EA	111	4,200.00	466,200.00
6	6" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	520	60.00	31,200.00
7	8" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	7,720	52.00	401,440.00
8	10" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	2,440	58.00	141,520.00
9	12" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	1,100	67.00	73,700.00
10	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (0'-6' Depth) (incl necessary fittings & pavement repair)	EA	7	4,896.00	34,272.00
11	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (6'-8' Depth) (incl necessary fittings & pavement repair)	EA	3	6,924.00	20,772.00
12	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (10'-12' Depth) (incl necessary fittings & pavement repair)	EA	2	9,000.00	18,000.00
13	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (12'-14' Depth) (incl necessary fittings & pavement repair)	EA	1	13,020.00	13,020.00
14	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (16'-18' Depth) (incl necessary fittings & pavement repair)	EA	1	17,100.00	17,100.00
15	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (0'-6' Depth) (incl necessary fittings & pavement repair)	EA	1	5,100.00	5,100.00
16	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (8'-10' Depth) (incl necessary fittings & pavement repair)	EA	2	7,200.00	14,400.00
17	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (12'-14' Depth) (incl necessary fittings & pavement repair)	EA	1	13,200.00	13,200.00

18	Manhole Rehabilitation	Vert. Ft.	400	465.00	186,000.00
19	Adjustment of Manhole Top	EA	3	2,400.00	7,200.00
20	Water Tight Manhole Cover and Frame	EA	7	1,800.00	12,600.00
21	Protruding Tap Removal	EA	80	375.00	30,000.00
22	Solid Sod (Incl. Sod, Top Soil, Fertilizer, Watering, etc.)	SY	80	30.00	2,400.00
23	Landscape Restoration (Inc. Top Soil, Plants, Mulch, Watering, etc.)	SF	515	60.00	30,900.00
24	Clearing and Grubbing	Acre	0.5	9,000.00	4,500.00
25	Temporary Silt Fence**	LF	250	7.80	1,950.00
26	20"Ø Wattles**	LF	125	30.00	3,750.00
27	Maintenance of Traffic	LS	1	54,600.00	54,600.00
28	Mobilization	LS	1	225,000.00	225,000.00
BASE BID SUBTOTAL:					\$2,664,184.00
ADDITIVE ALTERNATE NO 1					
Item	Description	Unit	Quantity	Unit Price	Extension
AA1	48" Precast Concrete Sewer Manhole (0' - 6'), Doghouse Type	EA	1	10,200.00	10,200.00
AA2	48" Precast Concrete Sewer Manhole (8' - 10'), Doghouse Type	EA	1	16,200.00	16,200.00
AA3	Demolition and Removal of Existing Manholes (All Types)	EA	1	2,580.00	2,580.00
AA4	4" Sanitary Sewer Service Cleanout	EA	9	3,000.00	27,000.00
AA5	6" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All Depths)	LF	150	180.00	27,000.00
AA6	Existing Sewer Service Investigation	EA	12	795.00	9,540.00
AA7	6" & Under - Service Lateral - Cleaning, CCTV & Cured-In-Place-Pipe	EA	9	4,200.00	37,800.00
AA8	6" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	407	60.00	24,420.00
AA9	8" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	404	52.00	21,008.00
AA10	10" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	670	58.00	38,860.00

AA11	18" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	156	260.00	40,560.00
AA12	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (8'-10' Depth) (incl necessary fittings & pavement repair)	EA	1	7,200.00	7,200.00
AA13	Manhole Rehabilitation	Vert. Ft.	79	465.00	36,735.00
AA14	Solid Sod (Incl. Sod, Top Soil, Fertilizer, Watering, etc.)	SY	5	30.00	150.00
AA15	Landscape Restoration (Inc. Top Soil, Plants, Mulch, Watering, etc.)	SF	10	60.00	600.00
ADDITIVE ALTERNATE NO 1 SUBTOTAL:					\$299,853.00
TOTAL BASE BID & ADDITIVE ALTERNATE NO 1:					\$2,964,037.00

Base Bid and Additive Alternate No 1 Respectfully Submitted, Name of Firm or Bidder:



BLD Services, LLC / Jacob Trapani, Vice President

BID BOND

KNOW ALL MEN BY THESE PRESENTS: that we, the under signed, _____
BLD Services, LLC Principal, and Nationwide Mutual Insurance
Company _____ as Surety, are hereby held and firmly bound unto the City of
Hattiesburg as Owner in the penal sum of 5% (Five Percent) for payment of which, well
and truly to be made, we hereby jointly and severally bind ourselves, successors and
assigns.

Signed, this 23rd day of January, 2025.

The Condition of the above obligation is such that whereas the Principal has submitted to
a certain BID, attached hereto and hereby made a part hereof to enter into a contract in
writing, for the following project:

**FOUNTAINBLEAU APARTMENTS AREA & MISSISSIPPI HALL AREA SEWER
REHABILITATION
HATTIESBURG, MISSISSIPPI**

NOW, THEREFORE,

(a) If said BID shall be rejected, or

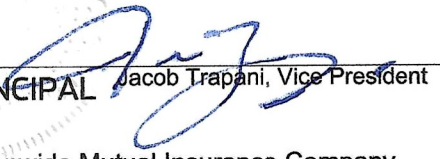
(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in
the Form of Contract attached hereto (properly completed in accordance with said BID)
and shall furnish a BOND for his faithful performance of said contract, and for the payment
of all persons performing labor or furnishing materials in connection therewith, and shall
in all other respects perform the agreement created by the acceptance of said BID, then
this obligation shall be void, otherwise the same shall remain in force and effect; it being
expressly understood and agreed that the liability of the Surety for any and all claims
hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said
Surety and its BOND shall be in no way impaired or affected by any extension of the time
within which the OWNER may accept such BID; and said Surety does hereby waive notice
of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year set forth above.

BLD Services, LLC

PRINCIPAL


Jacob Trapani, Vice President

Nationwide Mutual Insurance Company

SURETY

BY:


Cathy P. Grace, Attorney-in-Fact & Mississippi Licensed Agent

IMPORTANT: Surety companies executing BONDS must appear on the Treasure Department's most current line (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS THAT:

Nationwide Mutual Insurance Company, an Ohio corporation

hereinafter referred to severally as the "Company" and collectively as "the Companies" does hereby make, constitute and appoint:

BRAD M GRACE; CATHY P GRACE;

each in their individual capacity, its true and lawful attorney-in-fact, with full power and authority to sign, seal, and execute on its behalf any and all bonds and undertakings, and other obligatory instruments of similar nature, in penalties not exceeding the sum of

UNLIMITED

and to bind the Company thereby, as fully and to the same extent as if such instruments were signed by the duly authorized officers of the Company; and all acts of said Attorney pursuant to the authority given are hereby ratified and confirmed.

This power of attorney is made and executed pursuant to and by authority of the following resolution duly adopted by the board of directors of the Company:

"RESOLVED, that the president, or any vice president be, and each hereby is, authorized and empowered to appoint attorneys-in-fact of the Company, and to authorize them to execute and deliver on behalf of the Company any and all bonds, forms, applications, memorandums, undertakings, recognizances, transfers, contracts of indemnity, policies, contracts guaranteeing the fidelity of persons holding positions of public or private trust, and other writings obligatory in nature that the business of the Company may require; and to modify or revoke, with or without cause, any such appointment or authority; provided, however, that the authority granted hereby shall in no way limit the authority of other duly authorized agents to sign and countersign any of said documents on behalf of the Company."

"RESOLVED FURTHER, that such attorneys-in-fact shall have full power and authority to execute and deliver any and all such documents and to bind the Company subject to the terms and limitations of the power of attorney issued to them, and to affix the seal of the Company thereto; provided, however, that said seal shall not be necessary for the validity of any such documents."

This power of attorney is signed and sealed under and by the following bylaws duly adopted by the board of directors of the Company.

Execution of Instruments. Any vice president, any assistant secretary or any assistant treasurer shall have the power and authority to sign or attest all approved documents, instruments, contracts, or other papers in connection with the operation of the business of the company in addition to the chairman of the board, the chief executive officer, president, treasurer or secretary; provided, however, the signature of any of them may be printed, engraved, or stamped on any approved document, contract, instrument, or other papers of the Company.

IN WITNESS WHEREOF, the Company has caused this instrument to be sealed and duly attested by the signature of its officer the 1st day of April, 2024.



Antonio C. Albanese, **Vice President** of Nationwide Mutual Insurance Company

ACKNOWLEDGMENT



STATE OF NEW YORK COUNTY OF KINGS: ss

On this 1st day of April, 2024, before me came the above-named officer for the Company aforesaid, to me personally known to be the officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, deposes and says, that he is the officer of the Company aforesaid, that the seal affixed hereto is the corporate seal of said Company, and the said corporate seal and his signature were duly affixed and subscribed to said instrument by the authority and direction of said Company.

Sharon Laburda
Notary Public, State of New York
No. 01LA6427697
Qualified in Kings County
Commission Expires January 3, 2026



Notary Public
My Commission Expires
January 3, 2026

CERTIFICATE

I, Lezlie F. Chimienti, Assistant Secretary of the Company, do hereby certify that the foregoing is a full, true and correct copy of the original power of attorney issued by the Company; that the resolution included therein is a true and correct transcript from the minutes of the meetings of the boards of directors and the same has not been revoked or amended in any manner; that said Antonio C. Albanese was on the date of the execution of the foregoing power of attorney the duly elected officer of the Company, and the corporate seal and his signature as officer were duly affixed and subscribed to the said instrument by the authority of said board of directors; and the foregoing power of attorney is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of said Company this 23rd day of January, 2025.



Assistant Secretary

ADDENDUM No. 1
to the
CONTRACT DOCUMENTS and SPECIFICATIONS
for the
Fountainbleau Apartments Area and Mississippi Hall Sewer Rehabilitation
CITY of HATTIESBURG

The following attached modifications are to be made to the specifications and contract documents for the above captioned project:

CHANGE No. 1 - The bid opening date and time shall be changed for the project. The new date and time are January 23, 2025, at 10:00 A.M.

CHANGE No. 2 - Replace the Proposal Form in the Contract and Specification Documents with the Proposal Form attached to this addendum.

CHANGE No. 2 - Replace the Measurement and Payment Section in the Contract and Specification Documents with Measurement and Payment Section attached to this addendum.

CHANGE No. 3 - Sheets 5 and 6 of the Project Plans shall hereby be labeled as Additive Alternate 1 and correspond with the Additive Alternate 1 items in the aforementioned Proposal Form attached to this addendum.

SHOWS, DEARMAN & WAITS, INC.

by:

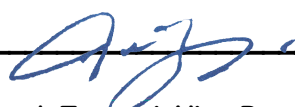


Shea E. McNease, P.E.

Dated this 14th day of January 14, 2025.

The receipt of this Addendum shall be indicated by signature on the line below.
A signed copy of the Addendum shall accompany the Bid Proposal.

Contractor: BLD Services, LLC

Signature: _____

Title: Jacob Trapani, Vice President

ADDENDUM No. 2
to the
CONTRACT DOCUMENTS and SPECIFICATIONS
for the
Fountainbleau Apartments Area and Mississippi Hall Sewer Rehabilitation
CITY of HATTIESBURG

The following attached modifications are to be made to the specifications and contract documents for the above captioned project:

CHANGE No. 1 - The contract time denoted in the Proposal Form of the Contract and Specification Documents should be changed as follows:

- Base Bid – 140 Days
- Additive Alternate No. 1 – 110 Days

CHANGE No. 2 - Replace Item G of the Measurement and Payment Section in the Contract and Specification Documents with the following:

G. ITEM Protruding Tap Removal

Payment for protruding tap removal shall include full removal of the protruding tap necessary to make a smooth transition. Item shall include materials, labor and equipment necessary to meet the plans and specifications. Payment shall be per each.

SHOWS, DEARMAN & WAITS, INC.

by:



Shea E. McNease, P.E.

Dated this 20th day of January, 2025.

The receipt of this Addendum shall be indicated by signature on the line below.
A signed copy of the Addendum shall accompany the Bid Proposal.

Contractor: BLD Services, LLC

Signature: _____

Title: Jacob Trapani, Vice President



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

1/16/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Marsh McLennan Agency 8144 Walnut Hill Lane, 16th Floor Dallas TX 75231	CONTACT NAME: Laurie Gibbs (Formerly Carter) PHONE (A/C, No, Ext): 972-770-7138 FAX (A/C, No): 972-404-5580 E-MAIL ADDRESS: Laurie.Gibbs@MarshMMA.com
INSURED BLD Services, LLC 2424 Tyler St. Kenner LA 70062	INSURER(S) AFFORDING COVERAGE INSURER A: XL Specialty Insurance Company INSURER B: National Union Fire Ins Co PittsburghPA INSURER C: New Hampshire Insurance Company INSURER D: INSURER E: INSURER F:

COVERAGES**CERTIFICATE NUMBER:** 1732287823**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
B	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR ☒ \$10,000 ☒ Incl. Cont. Liab GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC ☐ OTHER:			9894831	6/1/2024	6/1/2025	EACH OCCURRENCE \$2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$300,000 MED EXP (Any one person) \$10,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$15,000,000 PRODUCTS - COMP/OP AGG \$4,000,000 \$
B	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY ☒ \$250 Comp ☒ \$500 Coll			5717849	6/1/2024	6/1/2025	COMBINED SINGLE LIMIT (Ea accident) \$2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☒ RETENTION \$ 10,000			US00081760LI24A	6/1/2024	6/1/2025	EACH OCCURRENCE \$10,000,000 AGGREGATE \$10,000,000 \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N ☒ Y	N/A	WC015853407	6/1/2024	6/1/2025	☒ PER STATUTE ☐ OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
A	Builders Risk			UM00060469MA24A	6/1/2024	6/1/2025	SEE BELOW SEE BELOW

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CONTINUED ON PAGES 2 & 3

See Attached...

CERTIFICATE HOLDER**CANCELLATION**City of Hattiesburg, MS
200 Forrest Street
Hattiesburg MS 39401

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ADDITIONAL REMARKS SCHEDULE

Page 1 of 2

AGENCY Marsh McLennan Agency		NAMED INSURED BLD Services, LLC 2424 Tyler St. Kenner LA 70062	
POLICY NUMBER			
CARRIER	NAIC CODE	EFFECTIVE DATE:	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
FORM NUMBER: 25 **FORM TITLE:** CERTIFICATE OF LIABILITY INSURANCE

CONTINUED FROM PAGE 1

Blanket Additional Insured Form #CG 2010, Edition 12/19 (Additional Insured - Owners, Lessees or Contractors - Scheduled Person or Organization) Applies to the General Liability Policy
 Blanket Additional Insured Form #CG 2011, Edition 12/19 (Additional Insured - Managers or Lessors of Premises) Applies to the General Liability Policy
 Blanket Additional Insured Form #CG 2012, Edition 12/19 (Additional Insured - State or Political Subdivision - Permits or Authorizations) Applies to the General Liability Policy
 Blanket Additional Insured Form #CG 2015, Edition 12/19 (Additional Insured - Vendors) Applies to the General Liability Policy
 Blanket Additional Insured Form #CG 2018, Edition 12/19 (Additional Insured - Mortgagee, Assignee or Receiver) Applies to the General Liability Policy
 Blanket Additional Insured Form #CG 2034, Edition 12/19 (Additional Insured - Lessor of Leased Equipment Automatic Status When Required in Lease Agreement With You) Applies to the General Liability Policy
 Blanket Additional Insured Form #CG 2037, Edition 12/19 (Additional Insured - Owners, Lessees or Contractors - Completed Operations) Applies to the General Liability Policy
 Blanket Primary & Non-Contributory Form #CG 2001, Edition 12/19 Applies to the General Liability Policy
 Blanket Waiver of Subrogation Form #CG 2404, Edition 12/19 Applies to the General Liability Policy
 Blanket 90-Day Notice of Cancellation Form #CG 0224, Edition 10/93 (Earlier Notice of Cancellation Provided By Us - 90 Days, Except For Non-Payment of Premium) Applies to the General Liability Policy

Blanket Additional Insured Including Primary Non-Contributory Form #74445, Edition 10/99 Applies to the Automobile Liability Policy
 Blanket Additional Insured Form #87950, Edition 09/14 (Additional Insured - Where Required Under Written Contract) Applies to the Automobile Liability Policy
 Blanket Lessor - Additional Insured & Loss Payee Form #CA 0413, Edition 10/13 Applies to the Automobile Liability Policy
 Blanket Primary & Non-Contributory Form #74445, Edition 10/99 Applies to the Automobile Liability Policy
 Blanket Waiver of Subrogation Form #62897, Edition 06/95 Applies to the Automobile Liability Policy
 Blanket 90-Day Notice of Cancellation Endorsement Form #99307, Edition 09/14 (Early Notice of Cancellation Provided By Us - 90 Days, Except 10 Days For Non-Payment of Premium) Applies to the Automobile Liability Policy

Blanket Waiver of Subrogation Form #WC 000313, Edition 04/84 Applies to the Workers' Compensation Policy
 Blanket Waiver of Subrogation Form #WC 420304B, Edition 06/14 Applies to the Workers' Compensation Policy For Texas
 Blanket Notice of Cancellation Endorsement Form #WC 170601J, Edition 08/18 Applies to the Workers' Compensation Policy

The General Liability Policy Includes a Blanket Additional Insured Endorsement to the Certificate Holder Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The General Liability Policy Contains a Blanket Endorsement With Primary and Non-Contributory Wording That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The General Liability Policy Contains a Blanket Waiver of Subrogation Endorsement That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The General Liability Policy Contains a Blanket Notice of Cancellation Endorsement That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The Automobile Liability Policy Includes a Blanket Additional Insured Endorsement to the Certificate Holder Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The Automobile Liability Policy Contains a Blanket Endorsement With Primary and Non-Contributory Wording That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The Automobile Liability Policy Contains a Blanket Waiver of Subrogation Endorsement That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The Automobile Liability Policy Contains a Blanket Notice of Cancellation Endorsement That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The Workers' Compensation Policy Contains a Blanket Waiver of Subrogation Endorsement That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

The Workers' Compensation Policy Contains a Blanket Notice of Cancellation Endorsement That May Apply Only When There is a Written Contract Between the Named Insured and the Certificate Holder That Requires Such Status

CONTINUED ON PAGE 3



ADDITIONAL REMARKS SCHEDULE

AGENCY Marsh McLennan Agency		NAMED INSURED BLD Services, LLC 2424 Tyler St. Kenner LA 70062	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,
 FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

CONTINUED FROM PAGES 1 & 2

Includes Contractual Liability
 Excluded Officers: Brad Dutruch & Danny Miremont
 X, C, U is Not Excluded; Therefore, Included
 Includes Hired Auto Physical Damage
 Umbrella Policy Follows Form of Underlying Insurance

BUILDERS RISK CONTINUED FROM ABOVE

Builders Risk Policy Continued From Above
 Insurer Letter A - XL Specialty Insurance Company
 Policy Term: 6/1/2024 through 6/1/2025
 Policy #: UM00060469MA24A
 \$20,000,000 - Maximum Limit of Insurance
 \$7,500,000 - Covered Property, Except
 \$2,500,000 - As Respects Frame, Brick Veneer & Joisted Masonry Construction
 - Sub-Limits -
 \$1,000,000 - Named Storm
 \$1,000,000 - Temporary Premises
 \$250,000 - Transit
 - Deductibles -
 \$2,500 - Covered Property
 3% of Values At Risk At The Time of Loss Subject to \$10,000 Minimum As Respects Named Windstorm in Tier 2 Parishes or Counties. \$500,000 Applies to Tier 1 Parishes and Counties

RE: Project: Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation - Hattiesburg, MS.
 Certificate Holder Includes: City of Hattiesburg , MS (Owner) and the Dearman & Waits, Inc. (Engineer), and their servants, agents and employees.

State of Mississippi

BOARD OF CONTRACTORS

ACTIVE

BLD SERVICES, LLC
2424 TYLER ST.
KENNER, LA 70062

is duly registered and entitled to perform

- 1) BUILDING CONSTRUCTION 2) HEAVY CONSTRUCTION
3) HIGHWAY, STREET AND BRIDGE CONSTRUCTION 4) MUNICIPAL AND PUBLIC
WORKS CONSTRUCTION



We have hereunto set our hand and caused the Seal of the Mississippi Board of Contractors to be affixed this 6 day of Jun., 2024

CERTIFICATE OF RESPONSIBILITY

No. 17594-MC

Expires Jun. 6, 2025

Joel A. Canell

CHAIRMAN OF THE BOARD



**AUTHORIZATION OF AGENT
AND ATTORNEY-IN-FACT FOR BLD
SERVICES, L.L.C., BY SHIRLEY JARRELL WAGNER**

I, Shirley Jarrell Wagner, the duly elected and acting Secretary/Treasurer and Manager of BLD Services, L.L.C., a Louisiana limited liability company, pursuant to the authority granted to me by resolutions unanimously adopted by the Members and Managers of BLD Services, L.L.C., in a Unanimous Written Consent of the Members and Managers of BLD Services, L.L.C., dated June 15, 2018, which resolutions are in full force and effect as of the date hereof, do hereby take the following action:

I hereby authorize, empower and appoint Jacob Trapani, Vice President and Manager, to serve as authorized Agent and Attorney-in-Fact of BLD Services, L.L.C., to act on behalf of BLD Services, L.L.C., in connection with any and all negotiations, bids, concerns and transactions, including but not limited to the execution of any and all bids, papers, documents, affidavits, bonds, sureties, contracts and acts, and to receive and receipt thereof all purchase orders and notices issued pursuant to the provisions of any such bids or contracts; and further to take any and all actions necessary to carry to the purposes and intents of this action; and that the Members and Managers of BLD Services, L.L.C., therefore do therefore ratify, confirm and approve and accept each and every act performed by Jacob Trapani, Vice President and Manager, as said Agent and Attorney-in-Fact of BLD Services, L.L.C., in furtherance of this appointment.

January 23, 2025

DATE



A handwritten signature in blue ink that reads 'Shirley Jarrell Wagner'.

SHIRLEY JARRELL WAGNER
SECRETARY/TREASURER AND MANAGER

**UNANIMOUS WRITTEN CONSENT
OF THE MEMBERS AND MANAGERS OF BLD SERVICES, L.L.C.**

We, the undersigned, constituting all of the Members and Managers of BLD Services, L.L.C., a Louisiana limited liability company, do hereby unanimously approve the following resolutions, effective immediately:

RESOLVED, that the following persons are hereby elected and confirmed as the Officers and Managers of BLD Services, L.L.C.:

Dan Wagner – President and Manager

Shirley Jarrell Wagner – Secretary/Treasurer and Manager

Jacob Trapani – Vice President and Manager

RESOLVED FURTHER, that Shirley Jarrell Wagner be and is hereby authorized and empowered to submit bids for private or public contracts for or on behalf of BLD Services, L.L.C., whether such bids be inside or outside the State of Louisiana, with all of the rights, powers, and authority incumbent thereto.

FURTHER RESOLVED, that Shirley Jarrell Wagner be and she is further authorized and empowered to sign or otherwise execute any and all contracts for or on behalf of BLD Services, L.L.C., whether they be inside or outside the State of Louisiana, including but not limited to the execution of any and all bids, papers, documents, change orders, affidavits, bonds, sureties and acts, and to receive and receipt thereof all purchase orders and notices issued pursuant to the provisions of any such bids or contract, with all of the rights, powers, and authority incumbent thereto.

FURTHER RESOLVED, that Shirley Jarrell Wagner be and she is an authorized agent of BLD Services, L.L.C., for any and all purposes and with all of the rights, powers and authority incumbent thereto.

FURTHER RESOLVED, that Shirley Jarrell Wagner be and she is further authorized and empowered to appoint Daniel P. Wagner, III, Jacob Trapani, Brent D. Albert, Danny M. Albert and Dustin T. Richards to each serve as an authorized Agent and Attorney-in-Fact of BLD Services, L.L.C., to act on behalf of BLD Services, L.L.C., in connection with any and all negotiations, bids, concerns and transactions, including but not limited to the execution of any and all bids, change orders, papers, documents, affidavits, bonds, sureties, contracts and acts, and to receive and receipt thereof all purchase orders, notices issued pursuant to the provisions of any such bids or contracts; and further to take any and all actions necessary to carry to the purpose and intent of this resolution; and that the Members and Managers of BLD Services, L.L.C., therefore do ratify, confirm and approve and accept each and every act performed by Daniel P. Wagner, III, Jacob Trapani, Brent D. Albert, Danny M. Albert and Dustin T. Richards as an Agent and Attorney-in-Fact of BLD Services, L.L.C., in furtherance of this resolution.

Thus done and signed this 15th day of June, 2018.

Page 2 of 2 (Signature Page)
Unanimous Written Consent
of the Members and Managers
of BLD Services, LLC
June 15, 2018



BRAD LOUIS DUTRUCH, MEMBER

DANIEL MIREMONT, MEMBER

DANIEL WAGNER, MANAGER

SHIRLEY JARRELL WAGNER, MANAGER

JACOB TRAPANI, MANAGER



P.O. Box 397
Florence, MS 39073
1-800-746-4841

**MISSISSIPPI CERTIFICATE
OF RESPONSIBILITY 12019-MC**

JAN 23 2025

[Handwritten signature]
JAN 23 2025
[Handwritten signature]

9:42 AM

TO: City of Hattiesburg, MS
City Council Chambers, City Hall
200 Forrest Street
Hattiesburg, MS 39401

BID

Project Fountainbleau Apartments Area & Mississippi Hall Area Sewer Rehabilitation

JAN 23 2025

ADDENDUM No. 1
to the
CONTRACT DOCUMENTS and SPECIFICATIONS
for the
Fountainbleau Apartments Area and Mississippi Hall Sewer Rehabilitation
CITY of HATTIESBURG

The following attached modifications are to be made to the specifications and contract documents for the above captioned project:

CHANGE No. 1 - The bid opening date and time shall be changed for the project. The new date and time are January 23, 2025, at 10:00 A.M.

CHANGE No. 2 - Replace the Proposal Form in the Contract and Specification Documents with the Proposal Form attached to this addendum.

CHANGE No. 2 - Replace the Measurement and Payment Section in the Contract and Specification Documents with Measurement and Payment Section attached to this addendum.

CHANGE No. 3 - Sheets 5 and 6 of the Project Plans shall hereby be labeled as Additive Alternate 1 and correspond with the Additive Alternate 1 items in the aforementioned Proposal Form attached to this addendum.

SHOWS, DEARMAN & WAITS, INC.

by:



Shea E. McNease, P.E.

Dated this 14th day of January 14, 2025.

The receipt of this Addendum shall be indicated by signature on the line below.
A signed copy of the Addendum shall accompany the Bid Proposal.

Contractor: Suncoast Infrastructure, Inc.

Signature: 

Title: Stephen H. Rula, President

ADDENDUM No. 2
to the
CONTRACT DOCUMENTS and SPECIFICATIONS
for the
Fountainbleau Apartments Area and Mississippi Hall Sewer Rehabilitation
CITY of HATTIESBURG

The following attached modifications are to be made to the specifications and contract documents for the above captioned project:

CHANGE No. 1 - The contract time denoted in the Proposal Form of the Contract and Specification Documents should be changed as follows:

- Base Bid – 140 Days
- Additive Alternate No. 1 – 110 Days

CHANGE No. 2 - Replace Item G of the Measurement and Payment Section in the Contract and Specification Documents with the following:

G. ITEM Protruding Tap Removal

Payment for protruding tap removal shall include full removal of the protruding tap necessary to make a smooth transition. Item shall include materials, labor and equipment necessary to meet the plans and specifications. Payment shall be per each.

SHOWS, DEARMAN & WAITS, INC.

by:



Shea E. McNease, P.E.

Dated this 20th day of January, 2025.

The receipt of this Addendum shall be indicated by signature on the line below.
A signed copy of the Addendum shall accompany the Bid Proposal.

Contractor: Suncoast Infrastructure, Inc.

Signature: Stephen H. Rula

Title: Stephen H. Rula, President

PROPOSAL FORM

I (we) agree to begin work within (10) calendar days after the issuance of Notice to Proceed, and to complete the work within the following list of calendar days thereafter:

- Base Bid – 90 Days
- Additive Alternate No. 1 – 110 Days

It is understood that the quantities of work listed for unit prices bid are approximate and are intended to merely indicate the general scope of the various items entering into the complete work and for comparison of bids. It is further understood and agreed that the Owner may increase or decrease the quantities listed in the Proposal and that no change in the unit prices proposed shall be occasioned thereby.

The undersigned further agrees that the unit and lump sum prices quoted include all items of work required or necessary for the accomplishment of the projected work and that these items include all work indicated on the Plans and Specifications for which no specific pay items have been established.

The undersigned certifies that the bid prices contained herein have been carefully checked and are submitted as correct and final.

If within sixty (60) days the scheduled closing time for receipt of bids, this Proposal is accepted, the undersigned will execute a formal contract within ten (10) days after official notification thereof, will deliver a surety bond for the faithful performance of this contract, and will complete the work within the time specified from the date of execution of the contract.

Respectfully Submitted,

Suncoast Infrastructure, Inc.
Bidding Firm


Authorized by:
Stephen H. Rula, President
PO Box 397 (1858 Hwy 49 S)

Florence, MS 39073
ADDRESS

FOUNTAINBLEAU APARTMENTS AREA & MISSISSIPPI HALL AREA SEWER REHABILITATION

BASE BID					
Item	Description	Unit	Quantity	Unit Price	Extension
1	4" Sanitary Sewer Service Cleanout	EA	111	2,950.00	327,450.00
2	4" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All Depths)*	LF	1,110	120.00	133,200.00
3	6" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All Depths)	LF	1,500	145.00	217,500.00
4	Existing Sewer Service Investigation	EA	108	925.00	99,900.00
5	6" & Under - Service Lateral - Cleaning, CCTV & Cured-In-Place-Pipe	EA	111	4,500.00	499,500.00
6	6" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	520	44.00	22,880.00
7	8" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	7,720	46.00	355,120.00
8	10" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	2,440	51.00	124,440.00
9	12" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	1,100	62.00	68,200.00
10	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (0'-6' Depth) (incl necessary fittings & pavement repair)	EA	7	4,750.00	33,250.00
11	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (6'-8' Depth) (incl necessary fittings & pavement repair)	EA	3	6,700.00	20,100.00
12	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (10'-12' Depth) (incl necessary fittings & pavement repair)	EA	2	8,700.00	17,400.00
13	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (12'-14' Depth) (incl necessary fittings & pavement repair)	EA	1	12,000.00	12,000.00
14	8" Main Line - Point Repair using 8" SDR 26 PVC Sewer Pipe (16'-18' Depth) (incl necessary fittings & pavement repair)	EA	1	16,000.00	16,000.00
15	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (0'-6' Depth) (incl necessary fittings & pavement repair)	EA	1	5,000.00	5,000.00
16	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (8'-10' Depth) (incl necessary fittings & pavement repair)	EA	2	6,950.00	13,900.00
17	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (12'-14' Depth) (incl necessary fittings & pavement repair)	EA	1	12,000.00	12,000.00

18	Manhole Rehabilitation	Vert. Ft.	400	300.00	120,000.00
19	Adjustment of Manhole Top	EA	3	2,300.00	6,900.00
20	Water Tight Manhole Cover and Frame	EA	7	1,600.00	11,200.00
21	Protruding Tap Removal	EA	80	150.00	12,000.00
22	Solid Sod (Incl. Sod, Top Soil, Fertilizer, Watering, etc.)	SY	80	30.00	2,400.00
23	Landscape Restoration (Incl. Top Soil, Plants, Mulch, Watering, etc.)	SF	515	60.00	30,900.00
24	Clearing and Grubbing	Acre	0.5	10,000.00	5,000.00
25	Temporary Silt Fence**	LF	250	8.00	2,000.00
26	20"Ø Wattles**	LF	125	29.00	3,625.00
27	Maintenance of Traffic	LS	1	125,270.00	125,270.00
28	Mobilization	LS	1	251,860.00	251,860.00
BASE BID SUBTOTAL:					\$2,548,995.00

ADDITIVE ALTERNATE NO 1

Item	Description	Unit	Quantity	Unit Price	Extension
AA1	48" Precast Concrete Sewer Manhole (0' - 6'), Doghouse Type	EA	1	9,800.00	9,800.00
AA2	48" Precast Concrete Sewer Manhole (8' - 10'), Doghouse Type	EA	1	15,700.00	15,700.00
AA3	Demolition and Removal of Existing Manholes (All Types)	EA	1	2,500.00	2,500.00
AA4	4" Sanitary Sewer Service Cleanout	EA	9	2,900.00	26,100.00
AA5	6" SDR 26 PVC Pipe Sanitary Sewer Service (Incl Fittings) (All Depths)	LF	150	150.00	22,500.00
AA6	Existing Sewer Service Investigation	EA	12	925.00	11,100.00
AA7	6" & Under - Service Lateral - Cleaning, CCTV & Cured-In-Place-Pipe	EA	9	4,890.00	44,010.00
AA8	6" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	407	55.00	22,385.00
AA9	8" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	404	60.00	24,240.00
AA10	10" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	670	65.00	43,550.00

AA11	18" Main Line - Cleaning, CCTV & Cured-In-Place-Pipe	LF	156	175.00	27,300.00
AA12	10" Main Line - Point Repair using 10" SDR 26 PVC Sewer Pipe (8'-10' Depth) (incl necessary fittings & pavement repair)	EA	1	7,000.00	7,000.00
AA13	Manhole Rehabilitation	Vert. Ft.	79	285.00	22,515.00
AA14	Solid Sod (Incl. Sod, Top Soil, Fertilizer, Watering, etc.)	SY	5	29.00	145.00
AA15	Landscape Restoration (Incl. Top Soil, Plants, Mulch, Watering, etc.)	SF	10	58.00	580.00
ADDITIVE ALTERNATE NO 1 SUBTOTAL:					\$279,425.00
TOTAL BASE BID & ADDITIVE ALTERNATE NO 1:					\$2,828,420.00

Base Bid and Additive Alternate No 1 Respectfully Submitted, Name of Firm or Bidder:

Suncoast Infrastructure, Inc.

BID BOND

KNOW ALL MEN BY THESE PRESENTS: that we, the under signed, _____
Suncoast Infrastructure, Inc. _____ Principal, and _____
Federal Insurance Company _____ as Surety, are hereby held and firmly bound unto the City of Hattiesburg as Owner in the penal sum of 5% (Five Percent) for payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this 23 day of January, 2025.

The Condition of the above obligation is such that whereas the Principal has submitted to a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the following project:

**FOUNTAINBLEAU APARTMENTS AREA & MISSISSIPPI HALL AREA SEWER
REHABILITATION
HATTIESBURG, MISSISSIPPI**

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year set forth above.


PRINCIPAL Stephen H. Rula, President

Federal Insurance Company
SURETY

BY: 
Mary Anne Goodin, Attorney in Fact

IMPORTANT: Surety companies executing BONDS must appear on the Treasure Department's most current line (Circular 570 as amended) and be authorized to transact business in the State where the project is located.



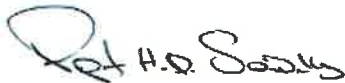
Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company
Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, **PACIFIC INDEMNITY COMPANY**, a Wisconsin corporation, **WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint **Ronald Lee Andrews, Mary Anne Goodin and Susan G. Johnston of Vicksburg, Mississippi**-----

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** have each executed and attested these presents and affixed their corporate seals on this **9th** day of **April 2024**.



Rupert HD Swindells, Assistant Secretary



Warren Eichhorn, Vice President



STATE OF NEW JERSEY
County of Hunterdon

SS.

On this **9th** day of **April, 2024** before me, a Notary Public of New Jersey, personally came **Rupert HD Swindells** and **Warren Eichhorn**, to me known to be Assistant Secretary and Vice President, respectively, of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY**, the companies which executed the foregoing Power of Attorney, and the said **Rupert HD Swindells** and **Warren Eichhorn**, being by me duly sworn, severally and each for himself did depose and say that they are Assistant Secretary and Vice President, respectively, of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal



Albert Contursi
NOTARY PUBLIC OF NEW JERSEY
No 50202369
Commission Expires August 22, 2027


Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY**, and **PACIFIC INDEMNITY COMPANY** on August 30, 2016; **WESTCHESTER FIRE INSURANCE COMPANY** on December 11, 2006; and **ACE AMERICAN INSURANCE COMPANY** on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, **Rupert HD Swindells**, Assistant Secretary of **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** (the "Companies") do hereby certify that

- (i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
- (ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this **January 23, 2025**




Rupert HD Swindells, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:
Telephone (908) 903- 3493 Fax (908) 903- 3656 e-mail: surety@chubb.com

State of Mississippi

BOARD OF CONTRACTORS

ACTIVE

SUNCOAST INFRASTRUCTURE, INC.

1858 HWY 49 S

FLORENCE, MS 39073

is duly registered and entitled to perform

1) INSTALLATION OF LININGS AND COATINGS 2) MUNICIPAL AND PUBLIC WORKS
CONSTRUCTION



We have herewith set our hand and caused the Seal of the Mississippi Board of Contractors to be affixed this 8 day of Oct., 2024

CERTIFICATE OF RESPONSIBILITY

No. 12019-MC

Expires Oct. 8, 2025

Joel A. Canell,

CHAIRMAN OF THE BOARD



P. O. Box 397
Florence, MS 39073

Phone: 601-420-9682
Fax: 601-420-9300

CORPORATE RESOLUTION

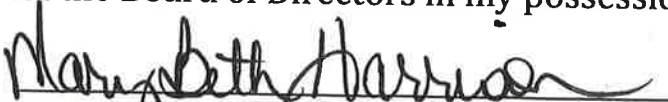
A meeting of the Board of Directors of Suncoast Infrastructure, Inc. a corporation organized under the laws of the State of Mississippi and domiciled in Rankin County was held this 23rd day of January, 2025, and as attended by a quorum of the members of the Board of Directors.

The following resolution was offered, duly seconded and, after discussion, was unanimously adopted by said quorum:

BE IT RESOLVED, that Stephen H. Rula is hereby authorized to submit bid proposals and execute agreements on behalf of this corporation with the City of Hattiesburg, Mississippi.

BE IT FURTHER RESOLVED that said authorization and appointment shall remain in full force and effect, unless revoked by resolution of this Board of Directors and that said revocation will not take effect until the City of Hattiesburg, Mississippi, is furnished a copy of said resolution, duly certified.

I, Mary Beth Harrison, hereby certify that I am the Secretary of Suncoast Infrastructure, Inc. a corporation created under the laws of the State of Mississippi domiciled in Rankin; that the foregoing is a true and exact copy of a resolution adopted by a quorum legally called and held on the 23rd day of January, 2025, as said resolution appears of record in the Official Minutes Of the Board of Directors in my possession this 23rd day of January, 2025.


Mary Beth Harrison, Secretary



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Marybeth Bergin, Director of Transportation and Engineering
cc:
Date: Tuesday, March 18, 2025
Re: Acknowledge receipt of closing documents for the Tatum Park Field 16 Lighting Project; Authorize publication of Notice of Final Settlement; Authorize final acceptance of the project and Authorize payment of final pay application to the contractor.
File Number: 2025-226
Minute Book #

Summary

Acknowledge receipt of closing documents for the Tatum Park Field 16 Lighting Project; Authorize publication of Notice of Final Settlement; Authorize final acceptance of the project and Authorize payment of final pay application to the contractor.

Recommendation Statement

I recommend approval of this item.

Please place this on the March 18, 2025 City Council meeting for consideration.



March 3, 2025
N-S Project No. 17433.001

Marybeth Bergin, P.E.
Director of Engineering
City of Hattiesburg
P.O. Box 1898
Hattiesburg, MS 39403-1898

REFERENCE: CONTRACTORS FINAL ESTIMATE
CITY OF HATTIESBURG
TATUM PARK – FIELDS 16 LIGHTING

Dear Mrs. Bergin:

Enclosed are four (4) originals of the Contractor's Final Estimate along with Final Close-Out Documents for the referenced project. I have reviewed the Contractor's Final Estimate and find the pay application to be in order. I, therefore, recommend payment to the contractor Mississippi Power Company, in the amount of \$482,900.00 for work completed.

Please call me at 545-1565 if you have any questions or need additional information.

Sincerely,

NEEL-SCHAFER, INC.

Geoffrey Crosby, P.E.

Enclosures

engineers | planners | surveyors | environmental scientists | landscape architects

P: 601.545.1565 | F: 601.545.2267

704 Hardy Street

Hattiesburg, MS 39401

www.neel-schaffer.com



APPLICATION AND CERTIFICATE FOR PAYMENT

PAGE ONE OF 2 PAGES

TO OWNER:
City of Hattiesburg
101 Parkway Blvd
Hattiesburg, MS

FROM CONTRACTOR:
Mississippi Power Company
2992 W. Beach BLVD
Gulfport, MS 39502-4079

PROJECT:
Tatum Park Field 16

VIA ARCHITECT:
Neel-Schaffer, Inc.
704 Hardy St
Hattiesburg, MS 39401

APPLICATION #:
PERIOD TO: 07/09/24
PROJECT NOS:

CONTRACT DATE: 03/08/24

Distribution to:

☐ Owner
☐ Const. Mgr
☐ Architect
☒ Contractor

CONTRACT FOR: Musco sports lighting including 4 poles, LED fixtures, color fixtures, musco vision, and underground conductors.

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
Continuation Sheet is attached.

1. ORIGINAL CONTRACT SUM-----\$ 482,900.00
2. Net change by Change Orders-----\$ 495,400.00
3. CONTRACT SUM TO DATE (Line 1 +/- 2) \$ 482,900.00
4. TOTAL COMPLETED & STORED TO DATE-\$ 482,900.00
(Column G on Continuation Sheet)
5. RETAINAGE:
a. _____ of Completed Work \$ _____
(Columns D+E on Continuation Sheet)
b. _____ of Stored Material \$ _____
(Column F on Continuation Sheet)
Total Retainage (Line 5a + 5b or
Total in Column I of Continuation Sheet-----\$ _____
6. TOTAL EARNED LESS RETAINAGE-----\$ 482,900.00
(Line 4 less Line 5 Total)
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT
(Line 6 from prior Certificate)-----\$ _____
8. CURRENT PAYMENT DUE-----\$ 482,900.00
9. BALANCE TO FINISH, INCLUDING RETAINAGE
(Line 3 less Line 6) \$ 497,900.00

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner		
Total approved this Month		
TOTALS		
NET CHANGES by Change Order		

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown therein is now due.

CONTRACTOR:

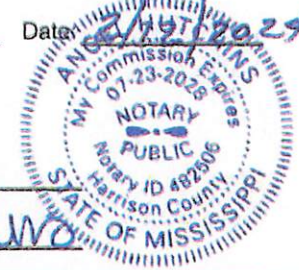
By: Lin H

Date: 2/15/2024

State of: Mississippi
County of: Harrison

Subscribed and sworn to before
me this 12 day of February

Notary Public: Cheryl Hatcher
My Commission expires: 7/23/2028



CERTIFICATE FOR PAYMENT

In accordance with Contract Documents, based on on-site observations and the data comprising application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED ----- \$ 482,900.00

(Attach explanation if amount certified differs from the amount applied for. Initial all figures on this application and on the Continuation Sheet that are changed to conform to the amount certified.)

ARCHITECT:

By: Jeffrey C. [Signature] Date: 3/3/2025

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner of Contractor under this Contract.

CONTINUATION SHEET

Page 2 of 2 Pages

ATTACHMENT TO PAY APPLICATION

APPLICATION NUMBER:

PROJECT:

APPLICATION DATE:

Tatum Park Field 16

PERIOD TO: 9-Jul-24

ARCHITECT'S PROJECT NO:

A Item No.	B Description of Work	C Scheduled Value	D Work Completed		F Materials Presently Stored (Not In D or E)	G		H Balance To Finish (C - G)	I Retainage (If Variable Rate)
			From Previous Application (D + E)	This Period		Total Completed And Stored To Date (D + E + F)	% (G/C)		
1	Complete install of Musco Lighting System	482,900.00	482,900.00			482,900.00	100%		
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
SUBTOTALS PAGE 2		482,900.00	482,900.00			482,900.00	100%		

Limited Warranty

For a period of one (1) year after the completion of the Services, MPC warrants that the Services performed by MPC hereunder, will be performed in a good, professional, workmanlike and competent manner, in conformity with all applicable professional standards. If Customer notifies MPC of any defective or non-conforming Services within one (1) year after the completion of the Services, then MPC shall correct or re-perform the defective or non-conforming Services; provided, however, that, MPC's sole obligation and Customer's exclusive remedy for defective or non-conforming Services is for MPC to correct or re-perform the defective or non-conforming Services within one (1) year after the completion of the Services, subject to the limitation of liability set-forth herein. MPC shall be entitled to rely on the accuracy and currency of information supplied by or at the direction of Customer, or available from generally acceptable reputable sources. MPC's WARRANTY EXPRESSED IN THIS PARAGRAPH IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CUSTOMER ASSUMES FULL RESPONSIBILITY FOR THE SELECTION OF THE PARTICULAR SERVICES TO BE PERFORMED HEREUNDER BY MPC TO ACHIEVE CUSTOMER'S PURPOSES.

Completion of Services Date: September 24, 2024

Project: Tatum Park Sports Lighting

Mississippi Power

By: 
Bryan Coley

Title: Director of Customer Solutions

Date: 02/07/2025



Musco Constant 25™

25-Year Product Assurance & Warranty Program

Project name: Tatum Park Fields 16 Project number: 214612
Owner: City of Hattiesburg City: Hattiesburg State: MS
Covered product(s): Light-Structure System™ with TLC for LED™ technology
Date issued: September 24, 2024 Expiration: September 24, 2049

Musco Sports Lighting, LLC will provide all materials and labor to maintain operation of your lighting system to original design criteria for 25 years. Musco products and services are guaranteed to perform on your project as detailed in this document.

Light Performance

Specified illumination levels will be maintained and are marked as guaranteed in the Musco Illumination Summary.

Individual luminaire outages that occur during the warranty and maintenance period are repaired when the usage of any field is materially impacted.

Spill Light Control

If specified, spill light levels at identified locations are guaranteed to be controlled to the maximum values provided in the Musco Illumination Summary.

Energy Consumption

Total average kW consumption for your lighting system is guaranteed to be not more than the total load shown in the Musco Illumination Summary.

Monitoring, Maintenance, and Control Services

Musco shall monitor the performance of your lighting system, including on/off status, hours of usage, and luminaire outages. If outages that affect playability are detected, Musco will contact you and proactively dispatch technicians.

On-off control of your lighting system is provided via an easy-to-use web site scheduling system, smartphone app, phone, email, or fax. Our trained Control-Link Central™ service center staff is available toll-free 24/7. Regular usage reports are always available on Control-Link Central's web site.

Structural Integrity

Your project has been designed to IBC, 2018, 140mph, Exposure C
Structural integrity of equipment manufactured by Musco is guaranteed.

Musco has a team of people to ensure fulfillment of our product and services warranty and maintains financial reserves dedicated to support our fulfillment of this warranty. Please keep this document as your signed contract guaranteeing comprehensive service for the 25 year period.

Musco Constant 25™

25-Year Product Assurance & Warranty Program

Terms and Conditions

5. Contract Limitations:

- EXCLUSIONS FROM COVERAGE: IN NO EVENT WILL MUSCO BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH INCLUDE, BUT ARE NOT LIMITED TO, ANY DELAY IN RENDERING SERVICE OR LOSS OF USE DURING THE REPAIR PERIOD OF THE COVERED PRODUCT(S) OR WHILE OTHERWISE AWAITING PARTS.

- Limitation of Liability: To the extent permitted by applicable law, the liability of Musco, if any, for any allegedly defective Covered Product(s) or components shall be limited to repair or replacement of the Covered Product(s) or components at Musco's option. THIS CONTRACT IS YOUR SOLE EXPRESS WARRANTY WITH RESPECT TO THE COVERED PRODUCT(S). ALL IMPLIED WARRANTIES WITH RESPECT TO THE COVERED PRODUCT(S) INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY EXCLUDED.

- For the purposes of and by your acceptance of this Contract you acknowledge and agree that if a surety bond ("Bond") is provided the warranty and/or maintenance guarantee provided for in this Contract and any corresponding liability on behalf of the issuing surety under the Bond is limited to the first twelve (12) months of said warranty and/or maintenance guarantee coverage period. Any warranty and/or guarantee coverage period in excess of said initial 12 month period does not fall within the scope of the Bond and shall be the sole responsibility of Musco.

- Musco requires reasonable access for a crane or man lift equipment to service the lighting system. Musco will not be responsible for damage from operating the vehicle on the property when the equipment is operated in the prescribed manner over the designated access route.
- Obsolescence or Environmental Restrictions: If during any maintenance or other work performed under this Warranty, any of the parts of the Covered Product(s) are found to be either obsolete, no longer available, or prohibited by any state or federal agency, Musco shall replace said parts with comparable parts and materials with equal operating characteristics solely at Musco's discretion. The cost of replacement of any obsolete cellular related technology shall be borne by you. Prior to completing any such work, Musco shall notify you of the cost (if any) you will incur in the replacement of such parts under this section.

- Transfer and Assignment:** Except to owners, you shall not have the right to assign or otherwise transfer your rights and obligations under this Contract except with the prior written consent of Musco; however, a successor in interest by merger, operation of law, assignment or purchase or otherwise of your entire business shall acquire all of your interests under this Contract.
- Governing Law:** Unless otherwise governed by applicable state law, the Contract shall be interpreted and enforced according to the laws of the State of Iowa.
- Subrogation:** In the event Musco repairs or replaces any Covered Product(s), parts or components due to any defect for which the manufacturer or its agents or suppliers may be legally responsible, you agree to assign your rights of recovery to Musco. You will be reimbursed for any reasonable costs and expenses you may incur in connection with the assignment of your rights. You will be made whole before Musco retains any amounts it may recover.

Signature:

Vice President of Sales

- Page 2 of 2 -

Additional Provisions

- Availability of Service:** Control-Link Central™ operators shall be available 24/7 via web site, phone, fax, or email. Maintenance service specialists shall be available 8AM to 5PM Central Time, and services shall be rendered during these same hours in your local time zone, Monday through Friday (with the exception of national holidays). Hours of operation are subject to change without notice to you. Musco will exercise all reasonable efforts to perform service under this Contract, but will not be responsible for delays or failure in performing such services caused by adverse weather conditions, acts of any government, failure of transportation, accidents, riots, war, labor actions or strikes or other causes beyond its control.
- Determination of Repairs:** Musco will utilize the field monitoring system and any information provided by the customer to determine when the usage of the field is materially impacted. From this information, Musco will determine needed repair and/or replacement of Covered Product(s) and parts. Repair will be with Product(s) of like kind and quality.
- Your Requirements Under this Contract:** You must meet all electrical and installation requirements as specified by the manufacturer. In addition, you promise and assure: full cooperation with Musco, Musco's technicians and authorized service during telephone diagnosis and repair of the Covered Product(s); reasonable accessibility of the Covered Product(s); a northwesterly and safe environment for service.

You agree to check fuses and to replace fuses as needed. Musco provides spare fuses in the lowest alpha-numeric numbered enclosure. Musco will replenish spare fuses used.

You agree to keep your control system online. This means keeping the required control voltage to the control system at all times. Any deviation from this practice must be discussed with Musco's Warranty Department.

- Service Limitations — This Contract does not cover:** Maintenance, repair, or replacement necessitated by loss or damage resulting from any external causes such as, but not limited to, theft, environmental conditions, negligence, misuse, abuse, improper electrical/power supply, unauthorized repairs by third parties, attachments, damage to cabinetry, equipment modifications, vandalism, animal or insect infestation, physical damage to Covered Product(s) parts or components, failure of existing structures, supporting electrical systems or any non-Musco equipment, or acts of God/nature (including, but not limited to: earthquake, flood, tornadoes, typhoons, hurricanes, or lightning).



This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8205020-016032

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Alisa B. Ferris; Anna Childress; Jeffrey M. Wilson; Mark W. Edwards II; Richard H. Mitchell; Robert R. Freck; Sam Audia; William M. Smith

all of the city of Birmingham state of AL each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 11th day of March, 2021.



Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey
David M. Carey, Assistant Secretary

State of PENNSYLVANIA ss
County of MONTGOMERY

On this 11th day of March, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written



Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS: Section 12 Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts: Section 5 Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 12th day of February, 2025



By: Renee C. Llewellyn
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSLR@libertymutual.com.

**TATUM PARK - FIELDS #16 & #18 LIGHTING PROJECT
CITY OF HATTIESBURG, MISSISSIPPI**

BASE BID

**Mississippi Power
2992 W. Beach Blvd
Gulfport, MS 39502**

Final

Pay Item	Description	Qty	Unit	Unit Price	Price Extension
1	Tatum Park – Fields 16 Lighting	1	LUMP SUM	\$442,690.00	\$442,690.00
2	Tatum Park – Fields 16 Custom Color Accent Lighting Control	1	LIN. FT.	\$15,310.00	\$15,310.00
3	Allowance – Electrical Service Connection ***	1	LIN. FT.	\$15,000.00	\$15,000.00
TOTAL BASE BID \$					\$473,000.00

\$442,690.00

\$15,310.00

\$2,500.00

ADDITIVE ALTERNATE #2

Pay Item	Description	Qty	Unit	Unit Price	Price Extension
6	Tatum Park – Fields 16 Video Streaming	1	Lump Sum	\$22,400.00	\$22,400.00
TOTAL ADD ALT #2 \$					\$22,400.00

\$22,400.00

\$482,900.00

Weaver Electric

PO Box 7176
Gulfport, MS 39506
228.265.7740 office
228.265.7742 fax

SOUTHERN ACCOUNTS PAYABLE-MPCO
PO Box 830727
Birmingham, AL 35283
VIA EMAIL: mississippipowerinvoices@southernco.com
CONTACT: Bryce Johnson

INVOICE DATE: 7/9/2024
Purchase Order MPC91740-0001
FACILITY: Tatum Park
CONTRACT #: 91740
WEAVER JOB#: MS24E041
WEAVER INVOICE#: 1

mbjohnso@southernco.com

Tatum Park Soccer Field #16 Hattiesburg, MS: Musco Lighting Upgrade

LABOR/EQUIPMENT				
DATE	NAME/CLASSIFICATION	HRS	RATE	AMOUNT
Per Attached Purchase Order MPC91740-0001 for contract 91740				
	Maximo PK # 91740			
	100% Billing			\$ 140,000.00

		LABOR & EQUIPMENT TOTAL
EQUIPMENT		HRS

EQUIPMENT TOTAL				
MATERIAL				
DATE	VENDOR	INVOICE	COST	AMOUNT
SUBTOTAL				15%
				MATERIAL TOTAL
RENTAL				
DATE	VENDOR	INVOICE	COST	AMOUNT
				10%
				RENTAL TOTAL
INVOICE TOTAL				\$ 140,000.00

Purchase Order #: MPC91740-0001

WAIVER AND RELEASE UPON PAYMENT

STATE OF MISSISSIPPI

COUNTY OF Harrison

THE UNDERSIGNED MECHANIC AND/OR MATERIALMAN HAS BEEN EMPLOYED BY

Weaver Electric, Inc. TO FURNISH
(NAME OF CONTRACTOR)

Provide Labor & Material to install (4) Musco poles & lights, meter point, vision pole, 3000' of underground conduit
(DESCRIBE MATERIALS AND/OR LABOR)

FOR THE CONSTRUCTION OF IMPROVEMENTS KNOWN AS

Tatum Park Soccer Field #16
(TITLE OF THE PROJECT OR BUILDING)

WHICH IS LOCATED IN THE CITY OF Hattiesburg, COUNTY OF

Forrest, AND IS OWNED BY City of Hattiesburg
(NAME OF OWNER)

AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

(DESCRIBE THE PROPERTY UPON WHICH THE IMPROVEMENTS WERE MADE BY USING EITHER
A METES AND BOUNDS DESCRIPTION, THE LAND LOT DISTRICT, BLOCK AND LOT NUMBER,
OR STREET ADDRESS OF THE PROJECT.)

101 Parkway Blvd Hattiesburg, MS

UPON THE RECEIPT OF THE SUM OF \$ 140,000.00, THE MECHANIC
AND/OR MATERIALMAN WAIVES AND RELEASES ANY AND ALL LIENS OR
CLAIMS OF LIENS IT HAS UPON THE FOREGOING DESCRIBED PROPERTY OR

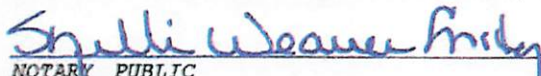
ANY RIGHTS AGAINST ANY LABOR AND/OR MATERIAL BOND ON ACCOUNT OF
LABOR OR MATERIALS, OR BOTH, FURNISHED BY THE UNDERSIGNED TO OR
ON ACCOUNT OF SAID CONTRACTOR FOR SAID PROPERTY.

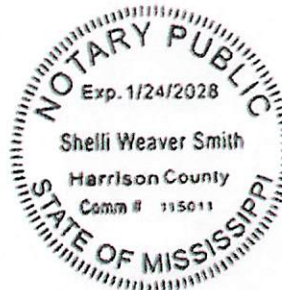

SIGNATURE

BY: Casey C. Weaver
(PRINT NAME)

ITS: President
(PRINT TITLE)

SWORN TO AND SUBSCRIBED BEFORE ME, THIS THE 9th DAY OF 20 ^{July} 24


NOTARY PUBLIC



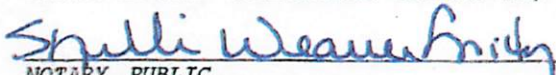
NOTICE: WHEN YOU EXECUTE AND SUBMIT THIS DOCUMENT, YOU SHALL BE CONCLUSIVELY
DEEMED TO HAVE BEEN PAID IN FULL THE AMOUNT STATED ABOVE, EVEN IF YOU HAVE NOT
ACTUALLY RECEIVED THE PAYMENT, SIXTY (60) DAYS AFTER THE DATE STATED ABOVE
UNLESS YOU FILE EITHER AN AFFIDAVIT OF NONPAYMENT OR A CLAIM OF LIEN BEFORE
THE EXPIRATION OF THE SIXTY-DAY PERIOD. THE FAILURE TO INCLUDE THIS NOTICE
LANGUAGE ON THE FACE OF THE FORM SHALL RENDER THE FORM UNENFORCEABLE AND
INVALID AS A WAIVER AND RELEASE UNDER SECTION 85-7-419, MISSISSIPPI CODE OF
1972.

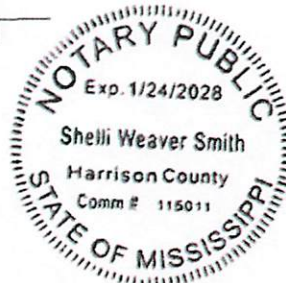

SIGNATURE

BY: Casey C. Weaver
(PRINT NAME)

ITS: President
(PRINT TITLE)

SWORN TO AND SUBSCRIBED BEFORE ME, THIS THE 9th DAY OF 20 ^{July} 24


NOTARY PUBLIC



Purchase Order

Mississippi Power
2992 W Beach Blvd
Gulfport, MS 39502



IF MATERIAL DATA SHEET IS AVAILABLE, PLEASE FORWARD WITH SUPPLIER

PO No: MPC91740-0001

PO Revision:

PO Date: 07/02/2024

Contract: 91740

Contract Revision: 0

Contract's Start Date:

Master Contract:

Master Contract Revision:

Contract's End Date:

Supplier:
WEAVER ELECTRIC INC
10194 LORRAINE RD, SUITE 1-B
GULFPORT MS 39503

Attn:
RACHEL SAWYER

Fax:
(228)-265-7742

Phone:
(228)-265-7740

Email:
RSAWYER@WEAVERELECTRIC.US

Pay To:

Mail Invoices To:
SOUTHERN ACCOUNTS PAYABLE-MPC
P.O. BOX 830727
BIRMINGHAM AL 35283

Email Invoices To:
mississippipowerinvoices@southernco.com

For invoice or payment inquiries:
Please email the Southern Accounts Payable Help Desk
scsaphelp@southernco.com
DO NOT send invoices to this email address.

Supplier's terms and conditions apply to this purchase order. The supplier agrees to indemnify and hold the purchaser harmless from all claims, damages, losses and expenses, including reasonable attorneys' fees, arising out of or from the performance or non-performance of the contract. The purchaser agrees to indemnify and hold the supplier harmless from all claims, damages, losses and expenses, including reasonable attorneys' fees, arising out of or from the performance or non-performance of the contract.

PO number, line number, item number and quantity are required on all shipping cartons.

Ship To: Mississippi Power
MISSISSIPPI POWER CO
200 INDUSTRIAL RD GATE 4
PASCAGOULA MS 39581

Buyer / Agent: MORGAN, JERRY
Phone: 205-257-1301
Email: JERRMORG@SOUTHERNCO.COM

Attn:
Phone:
Email:

Instructions:

Freight Terms:	SPFC	Ship Via:	Shipping Point:
Contract Retention:		Ship Method:	
Payment Terms:	NET 30	Documentation:	
		Payment Instructions:	

Line	Item	Description	UOM	Qty	Unit Cost	Line Cost	Promise Date
1		Weaver Labor Tatum Park	DOLLARS	140,000.00	1.00	140,000.00	10/15/2024
Procurement Class:		Radioactive?:	No	Serial No:	Equipment No:		
Project Name:		WO# 648754		Job Name:	WO No:		
Vendor Part No:				Requisition No:	374433	RFQ No:	
Manufacturer:		Manufacture Part No:					
PURCHASE ORDER TOTAL:						\$140,000.00	

under this Order such as all safety and health standards applicable to the work under this Order including those promulgated by the U.S. Occupational Safety and Health Act of 1970, as amended, including but not limited to OSHA General Industry Regulations 1910.269 and 1926 Subpart V, or the Nuclear Regulatory Commission including the employee protection provisions under 10 C.F.R. 50.7 which prohibit discrimination or retaliation against an employee for engaging in certain protected activities; (ii) the obtaining of licenses and permits; (iii) all labor laws and regulations including the use of U.S. citizens or properly documented alien workers under the Immigration Act of 1990 and the Immigration and Nationality Act of 1952, as amended; (iv) the Equal Opportunity Clause 41 CFR 60-1.4 and all employment discrimination laws and regulations such as Title VII of the Civil Rights Act and Executive Order 11246, as amended; (v) the U.S. Foreign Corrupt Practices Act; (vi) the environmental laws and regulations including the handling of hazardous waste or hazardous substances; (vii) all import and export laws and regulations; and (viii) Ag 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act involving disclosures relating to "Conflict Minerals" originating in the Democratic Republic of the Congo or an adjoining country ("Applicable Laws"). Supplier represents and warrants none of the products or materials provided to Purchaser under this Order contain any "Conflict Minerals" which originated from the Democratic Republic of the Congo or neighboring countries. Supplier will ensure that all operations incident to its obligations under this Order are performed with qualified personnel, properly licensed and trained in accordance with Applicable Laws.

Supplier covenants, represents and warrants that (i) neither it, nor its affiliate companies, are prohibited by any applicable law or regulation, from providing goods or services within the United States to Purchaser, including, without limitation, in Purchaser's capacity as a Federal contractor, telecommunications provider, and/or Nuclear Regulatory Commission licensee, and (ii) no goods, material, equipment or devices, including but not limited to wire and cable insulation or telecommunication and video surveillance devices, provided or distributed by or through Supplier have been banned prohibited or contain any components or substances that have been banned or otherwise prohibited by applicable law or regulation from distribution or use in commerce to Purchaser, including, without limitation, in Purchaser's capacity as a Federal contractor, telecommunications provider, and/or Nuclear Regulatory Commission licensee.

Supplier will notify Purchaser of any change in the above representation at least 30 days before such change goes into effect (or, if such 30 day prior notice period is not possible, as soon thereafter as possible). Purchaser may terminate the contract or any order under the contract if any of the foregoing representations change. In addition, Supplier will require compliance with this section with its suppliers.

Unless otherwise stated in the Order, taxes associated with this Order will be handled in accordance with Applicable Laws, based on the goods furnished and the jurisdiction in which they are furnished. Supplier will not make or authorize any direct or indirect contribution of any kind or nature whatsoever to any federal, state, or local government agency, any political candidate, public official, office holder, political party, committee or agency thereof on behalf of Company. In accordance with the U.S. Department of Labor's regulations implementing the Vietnam Era Veterans Readjustment Assistance Act (VEVRAA, as amended) at 41 CFR Part 60-300, Company and Supplier shall abide by the requirements of 41 CFR 60-300.5(a). This regulation prohibits discrimination against qualified protected veterans, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified protected veterans. In accordance with the U.S. Department of Labor's regulations implementing Section 503 of the Rehabilitation Act of 1973, as amended (Section 503) at 41 CFR Part 60-741, Company and Supplier shall abide by the requirements of 41 CFR 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

***** Representations. Supplier represents and warrants as follows: (1) neither it, nor any of its beneficial owners, is a Specially Designated National ("SDN") as defined by U.S. Department of the Treasury Office of Foreign Asset Control ("OFAC"); (2) neither it, nor any of its beneficial owners, is a citizen of a country subject to an OFAC Country Sanction; (3) it, and all of its beneficial owners, are in material compliance with any and all laws and regulations relating to the prevention of money laundering and the financing of terrorism to which they are expressly subject. Supplier will not intentionally offer, promise or give any undue pecuniary or other advantage, whether directly or through intermediaries, in connection with this Order to a Foreign Public Official, for that Official or for a third party, in order that the Official act or refrain from acting in relation to the performance of official duties, in order to obtain or retain business or other improper advantage for work related to this Order. The term "Foreign Public Official" and "Official" will mean any person holding a legislative, administrative or judicial office of a country, whether appointed or elected; any person exercising a public function for a country, including a public agency or a public enterprise; any official or agent of a public international organization; any political party, official of a political party or candidate for political office. The term "country," as used in this paragraph, will include all levels and subdivisions of a government from national to local.

***** Communication with Representatives. Supplier shall coordinate all safety and work rules and procedures with Company and all Supplier Representatives. Supplier represents and warrants that it has communicated and discussed with Company the characteristics of the work and the work site that are related to the safety of the work to be performed, including, as applicable to the work, (i) the nominal voltage of lines and equipment, (ii) the maximum switching-transient voltages, (iii) the presence of hazardous induced voltages, the presence and condition of protective grounds and equipment grounding conductor, (iv) the location of circuits and equipment, including electric supply lines and condition of poles, communication lines, and fire-protective signaling circuits, and (v) any environmental conditions relating to safety. Supplier further represents that it has instructed its Representatives of the above relevant information supplied by Company and agrees that it shall advise and notify Company and Suppliers' Representatives of any unique hazardous conditions presented by the work including any such conditions found or identified during the work. Supplier has communicated and instructed its Representatives on all applicable safety, health and legal requirements and job-related duties and hazards including, without limitation, (i) Applicable Laws and Occupational Safety and Health Administration ("OSHA") requirements and regulations; (ii) Suppliers' safety program; (iii) any project-specific safety plan; (iv) any information specific to the work performed under this Agreement; (v) any work site hazard; and (vi) obligations under this Agreement.

***** General Services Administration. Company and/or certain of its affiliates is/are a government contractor under an Areawide Public Utilities Contract with the General Services Administration of the United States Government. Supplier agrees that each of the clauses contained in the Federal Acquisition Regulations referred to below will be incorporated into and form a part of this Order as if set forth herein in full text, and Supplier will comply therewith, if the amount of this Order and the circumstances surrounding its performance require Company to include such clause in contracts between Company and others: (i) 52.203-3 Gratuities (APR 1984); (ii) 52.203-6 Restrictions on Subcontractor Sales to the Government (SEPT 2006); (iii) 52.203-7 Anti-Kickback Procedures (MAY 2014); (iv) 52.219-8 Utilization of Small Business Concerns (OCT 2014); (v) 52.219-9 Small Business Subcontracting Plan (OCT 2014); (vi) 52.222-21 Prohibition of Segregated Facilities (FEB 1999); (vii) 52.222-26 Equal Opportunity (MAR 2007); (viii) 52.222-37 Employment Reports on Veterans (JUN 2014); (ix) 52.222-40 Notification of Employee Rights under the National Labor Relations Act (DEC 2010); (x) 52.222-50 Combating Trafficking in Persons (FEB 2009); (xi) 52.222-54 Employment Eligibility Verification (AUG 2013); and (xii) 52.225-13 Restrictions on Certain Foreign Purchases (JUN 2008). Upon written request, Company will provide the full text of any of the above sections incorporated herein by reference. Supplier warrants and represents that neither it nor any of the Representatives is/are debarred, suspended or proposed for debarment as a contractor or subcontractor to any department, agency or other division of the United States Government. In the event that Supplier or any of the Representatives become debarred, suspended or proposed for debarment during the term of this Order, Supplier will immediately notify Company verbally and in writing. Supplier certifies that no Federal funds have been paid or will be paid to any person including any registered lobbyist for influencing or attempting to influence an officer or employee of any Federal agency in connection with this Order or subsequent amendments of this Order. If Supplier is subject to the requirements set forth in Federal Acquisition Regulation 52.219-9, Supplier will, (i) adopt a subcontracting plan ("Plan") that complies with the requirements of 52.219-9, (ii) provide a written copy of that Plan to Company, and (iii) if requested, provide timely periodic report(s) to Company that reflect the amount paid to subcontractors who are a small business concern, veteran-owned small business concern, service-disabled veteran-owned small business concern, HUBZone small business concern, small disadvantaged business concern, or women-owned small business concern. Supplier certifies that it does not use any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, regardless of whether that use is in performance of work under a Federal contract. For purposes of this Section, "covered telecommunications equipment" includes (1) telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities); (2) video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities); (3) telecommunications or video surveillance services provided by such entities or using such equipment; and (4) telecommunications or video surveillance equipment or services provided by an entity that the Secretary of Defense reasonably believes to be owned, controlled or connected to the government of a covered foreign country. Supplier certifies that it does not acquire, import, transfer, or install Bulk Power System Regulated Equipment, as such term is defined in the United States Department of Energy, Prohibition Order Securing Critical Defense Facilities effective January 16, 2021, that (i) has been manufactured or supplied by persons owned by, controlled by, or subject to the jurisdiction or direction of the People's Republic of China, and that (ii) could be used by Company as a component of its Defense Critical Electric Infrastructure serving a Critical Defense Facility ("CDF"), as those terms are defined in Section 215A Federal Power Act, at a service voltage level of 69 kV or higher, from the point of electrical interconnection (at a service voltage level of 69 kV or higher) with the CDF up to and including the next "upstream" transmission substation.

***** Termination for Convenience. Company may, by written notice to the Supplier, terminate this Order, in whole or in part, at any time for its convenience. Upon receipt of any such notice, the Supplier and its subcontractors and suppliers will immediately cease all work related to the goods that are the subject of this Order. Within thirty (30) days of receipt of a termination notice, Supplier will submit its claim, if any, for its costs of performance to the date of termination. Company will pay for all goods acceptably completed prior to the termination date, even if delivered thereafter, at the price set forth on this Order, adjusted accordingly for changes in quantities, and the parties will agree in good faith if any other reasonable amount will be paid to Supplier for other work performed prior to termination and the costs occasioned by such termination. Upon payment of the termination charges, title to all goods and any other things identifiable in the terminated goods for which Supplier has been paid will be vested in Company. Under no circumstances will Company be required to pay more than the total price otherwise payable pursuant to this Order, as reduced by payments made to Supplier prior to such termination.

***** Cancellation for Default. In the event of a breach, default, or threatened breach or default by Supplier, Company may cancel this Order and pursue all available remedies whether in contract, law, equity, or otherwise. If it is determined that Company has improperly canceled this Order for cause, Company's action will be deemed to have constituted a termination by Company for convenience pursuant to the "Termination for Convenience" clause.

***** Deferral or Suspension. Company may, at any time, defer or suspend the Supplier's work on, furnishing of, and/or shipment of all or part of the goods. Company will pay Supplier its actual additional cost incurred as a result of such deferral or suspension plus a reasonable percentage of such actual cost for overhead and profit.

***** Audit. Supplier authorizes Company, its auditor(s) or other authorized representative(s) to inspect the books, accounts and other records of Supplier, its parent, subsidiaries and affiliates that reflect, deal with or are related to the supply, pricing, delivery, warranties, or other aspects of the goods hereunder, and to make copies of or extracts from any or all of the same at any reasonable time during normal business hours.

***** Remedies and Liabilities. The rights and remedies of Company herein are cumulative and in addition to any and all rights and remedies provided by law, equity or otherwise.

***** Independent Contractor. Supplier and its Representatives are not and must not act as Company's employees, representatives, agents, partners, or joint venturers. Supplier and its Representatives are independent contractors. Supplier will be responsible and liable for all expenses, costs, liabilities, undertakings, assessments, taxes, insurance and other obligations incurred by Supplier or any of its Representatives as a result of performance under this Order.

***** No Waiver. No waiver by Company, either by act or failure to act, of any default by or obligation of Supplier in the performance of its obligations under this Order will be deemed or construed to be a waiver, whether prior or subsequent, of the same or any other default by or obligation of Supplier.

***** Supplier's Documents and Drawings. Supplier will furnish all necessary drawings, lists, manuals, training materials, schedules and other documentation (collectively, "Documents"), including necessary details for the design of proper supporting structures for use in the installation, testing and commissioning, operation, update, repair, replacement and maintenance of the goods. Upon request, the Documents must be submitted for approval by Company, but such approval will not relieve Supplier of any responsibility for furnishing goods that meet the requirements of this Order and that will operate satisfactorily under the specified conditions. Supplier must not arbitrarily mark Documents as proprietary or confidential. Company will have the right to copy, modify, photograph, use and disclose the Documents (even if Supplier marks them as proprietary and/or confidential) for any purposes related to installing, testing, commissioning, using, operating, maintaining, repairing, updating or replacing the goods (or equipment/ components related to or installed near the goods) or related to training individuals on the use of the goods.

***** Transportation and Charges. F.O.B. terms will be as set forth in this Order. Routing on this Order must be followed. No extra charge will be allowed for packing, crating or cartage unless so specified in this Order.

***** Billing and Payments. Supplier will render invoices per specific instructions in this Order. No freight charges are to be included on any invoice unless they are specifically stated on this Order, in which case they must be consistent with the terms of this Order. Payment terms will be as set forth in this Order. Payments must be made by voucher only. Company's Order number must appear on all invoices, packages, shipping cases, shipping documents and correspondence. Company will be entitled to withhold compensation to be paid Supplier for failure of Supplier to comply with contract deliverables including defective work, failure to make payments to subcontractors, or third party claims or notices of liens.

***** Governing Law. All disputes relating to the execution, interpretation, construction, performance or enforcement of this Order and the rights and obligations of the parties hereto will be governed by the laws of, and resolved in the State or Federal courts in, the state of the principal place of business of Company, and Supplier hereby consents to and waives any objection to venue and jurisdiction in such courts.

***** Survival. The terms and conditions of this Order that, by their sense, context, and nature survive the termination, cancellation, expiration and/or completion of this Order, will so survive. Should any provision, or part thereof, of this Order be held by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions and parts thereof shall remain in effect, provided that the deletion of the invalid or unenforceable provision or part thereof does not effect a material change to the remaining provisions.

***** Hazardous Substances or Materials. If applicable, Supplier agrees to submit to the appropriate Company personnel a Safety Data Sheet (SDS) as prescribed by local, state or federal standards for all hazardous substances or materials five (5) days before delivery of the material. Each SDS will have the Supplier's name and the Order number printed on the front page. This obligation applies to all material delivered under this Order that will involve exposure or potential exposure to hazardous substances or materials or items containing (or possibly containing) hazardous substances. Any material that can reasonably be called chemicals or that may generate hazardous waste under, but not limited to, any Applicable Law must be identified to the appropriate Company personnel as such and approved for use in writing. Supplier will be absolutely and entirely responsible for such waste and liable for the safety of Company, its personnel, and its property as well as Supplier and its Representatives. All accumulation or storage, transportation, removal from site and disposal of all wastes must be coordinated with and approved by appropriate Company personnel.

***** Services. The terms and conditions of this Order apply to Supplier's and its Representatives' performance of the services described in this Order ("Services"). Furthermore, the provisions of this Order that specifically refer to goods will apply to the Services to the same extent that they apply to goods, with all modifications, changes and/or additions to the text of those provisions that are necessary to effectuate such meaning. The following provisions also apply to the Services:

***** Persons Indemnified. To the extent applicable, for services furnished in connection with Plant Scherer, Plant Wansley, and/or any facility in the Georgia Integrated Transmission System, the following entities will also be Persons Indemnified: Georgia Transmission Corporation; Oglethorpe Power Corporation; Municipal Electric Authority of Georgia; City of Dalton, Georgia; Jacksonville Electric Authority; and Florida Power and Light Company.

***** Insurance. Supplier, at its expense, will procure and maintain policies of insurance providing sufficient coverage for the Services and all related activities to be furnished under this Order and of the type and in amounts normally carried by entities in Supplier's industry with insurance companies acceptable to Company. By accepting this Order, Supplier hereby waives, and will require its insured(s) to waive, all rights of subrogation against the Persons Indemnified with respect to any subsequent claim or loss payable or paid under each such policy and will name the Persons Indemnified as additional insureds under such policies.

***** Ownership of Work. The goods and Services and all related deliverables, other than installation and/or maintenance of machinery or equipment, provided or performed under this Order will be works for hire. Company will own all copyrights, trademarks, trade secrets, patents and any other intellectual property rights conceived, developed, created, modified or first reduced to practice by Supplier in connection with any deliverables and/or Services. Supplier, for itself, its employees, its agents, its successors and its assigns, assigns and releases to Company any and all such rights and agrees to execute any and all instruments necessary to the fulfillment of this provision.

***** Site Rules and Regulations. If Supplier or any of its Representatives enters upon any premises owned, leased, or controlled by Company, its parent or its affiliates, Supplier will ensure that it and the Representatives comply with all applicable site, safety, health, security, and fitness-for-duty rules and regulations for the premises. Among other things, Supplier will not permit any firearms, intoxicants or illegal drugs on any premises owned, leased, or controlled by Company, its parent or its affiliates.

***** Services Warranty. Supplier warrants for a period of one year after the date of acceptance by Company that the Services will be of the kind and quality specified herein, will be performed in accordance with all Applicable Laws and industry codes and standards, will be free from faults and defects in workmanship and material and will conform to requests, specifications and drawings provided by Company (if any). If Company gives Supplier written notice within the warranty period of any failure to meet these warranties, Supplier will, at its expense, repair or replace or re-perform such services necessary to remedy the failure, including making good any Services or material disturbed in fulfilling such warranties. Supplier will be liable for all expenses incurred in relation to the foregoing remedies. The rights and liabilities imposed under this paragraph are in addition to the rights and liabilities imposed in this Order and those available in law and equity. Nothing in this Order will diminish or limit the liability of Supplier under other sections of this Order. In addition to its warranty obligations set forth in this Order, Supplier will be liable to Company for the costs of repair or replacement of any property of Company and/or the Persons Indemnified that is damaged as a result of Supplier's services that are faulty, defective or otherwise fail to conform to the above warranties.



September 24, 2024
N-S Project No. 17433

SENT VIA EMAIL

Mississippi Power Company
2908 28th Street
Gulfport, Mississippi 39501

REFERENCE: CLOSEOUT DOCUMENTS
TATUM PARK-FIELD 16 LIGHTING
CITY OF HATTIESBURG

Dear Sir or Madam,

This letter is to notify you that our September 24, 2024, meeting of the referenced project revealed the work is complete. To close out this project, please submit the following documents:

- Four (4) Original - Final Contractor's Applications for Payment Request.
- Four (4) Originals - Certification that all subcontractors and project-related debts have been paid and that no liens have been filed against the project.
- Four (4) Originals - Consent of Surety for Final Payment and Release of Retainage.
- Four (4) Originals - Certificate of Warranty and Guarantee that the work will not be defective as required by the Contract. This project's one (1) year construction warranty period will begin on September 24, 2024 and end on September 24, 2025. The project's twenty-five (25) year warranty for equipment and maintenance will begin on September 24, 2024 and end on September 24, 2049.

Please call me if you have any questions or comments regarding this matter.

Sincerely,

NEEL-SCHAFER, INC.

Geoffrey Crosby, P.E.
Assistant Engineer Manager

CC: Betsy Mercier, City of Hattiesburg
Sid Gonsoulin, City of Hattiesburg

landscape architects
environmental scientists
surveyors
planners
engineers

P: 601.545.1565 | F: 601.545.2267

704 Hardy Street

Hattiesburg, MS 39401

www.neel-schaffer.com



Geoffrey Crosby

From: Ryan Tighe <Ryan.Tighe@musco.com>
Sent: Monday, March 3, 2025 3:39 PM
To: Gerry Logan
Cc: Geoffrey Crosby
Subject: RE: Tatum Park Field 16 Lighting - Musco Vision and Light Show

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Geoffrey,
The MuscoVision warranty is 5 years parts and labor.

Thanks,
Ryan



Ryan Tighe

Project Manager | Entertainment Division
Office: 641.673.2614 | **Mobile:** 641.660.6323
[Twitter](#) | [Facebook](#) | [LinkedIn](#) | [YouTube](#) | [Musco.com](#)

From: Gerry Logan <gerry.logan@musco.com>
Sent: Monday, March 3, 2025 3:34 PM
To: Ryan Tighe <Ryan.Tighe@musco.com>
Cc: geoffrey.crosby@neel-schaffer.com
Subject: FW: Tatum Park Field 16 Lighting - Musco Vision and Light Show

Geoffrey,

All light show components are included in the 25 year warranty.

I've forwarded this to Ryan regarding Muscovision.

Thanks,

Gerry Logan, Jr.
Field Sales Representative – Mississippi
Musco Sports Lighting
C: 662-402-1080
Facebook – “Musco Sports Lighting – Mississippi”
Twitter – “GLogan_Musco”

From: Geoffrey Crosby <geoffrey.crosby@neel-schaffer.com>
Sent: Monday, March 3, 2025 3:30 PM

To: Gerry Logan <gerry.logan@musco.com>

Subject: Tatum Park Field 16 Lighting - Musco Vision and Light Show

Gerry,

We received the close out documents from MS Power for the above project. I have 2 follow-up questions.

1. Does the light show components fall in the 25 year warranty?
2. What is the standard warranty period for the Muscovision system?

Thanks,



GEOFFREY CROSBY, P.E., AEC PM

Neel-Schaffer, Inc.

P.O. Box 1487 (39403-1487)

704 Hardy St, Hattiesburg, MS 39401

O: 601.545.1565 | D: 601.475.4005 | M: 601.408.3354

www.neel-schaffer.com



Neel-Schaffer, Inc. Confidentiality Note:

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SECTION 01740

WARRANTIES AND BONDS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds, as in Articles 5 and 13 of the General Conditions.
- B. Co-execute submittals when so specified.
- C. Review submittals to verify compliance with Contract Documents.
- D. Submit to the Owner for review.

1.02 SUBMITTAL REQUIREMENTS

- A. Assemble and include warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, couplers, and subcontractors including effective dates.
- B. Number of original signed copies required. Two (2) each.
- C. Table of Contents. Neatly typed in orderly sequence. Provide complete information for each item.
 - 1. Product or work item.
 - 2. Firm, with name of principal, address and telephone number.
 - 3. Scope.
 - 4. Date of beginning warranty, and bond.
 - 5. Duration of warranty.
 - 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances which might affect the validity of warranty or bond.
 - 7. Contractor, name of responsible principal, address and telephone number.

1.04 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
 - 1. Size 8-1/2-inches x 11-inches, punch sheets for standard 3-post binder.
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS." List:
 - a. Title of Project.
 - b. Name of Contractor.
- C. Binders: Commercial quality, three-post binder, with durable and cleanable plastic covers and maximum post width of 2-inches, "D" ring.

1.05 WARRANTY REQUIREMENTS

- A. For all components of the work, unless stated otherwise in these specifications for each individual item of equipment, submit a written warranty from the manufacturer to replace promptly any component thereof which, in the sole opinion of the Engineer, has defects in design, workmanship, materials, or performance within a one (1) year period following the date of acceptance for operation (Substantial Completion) by the Owner. The manufacturer's warranty period shall be concurrent with the Contractor for one (1) year, unless otherwise specified, commencing at the time of acceptance for operation (beneficial use) by the Owner and shall be read in conjunction with the Contractor's warranty which shall operate together to provide for replacement of defective components and restoration of proper operation. The Contractor shall be solely responsible for both warranties and the warranty below.
- B. 25-Year Warranty applicable to all lighting equipment including poles, luminaires, drivers, cross arms, contactors, and control panel(s): Each manufacturer shall supply a signed warranty covering the system's components for 25 years from the date of shipment. Warranty shall guarantee specified light levels. Manufacturer shall maintain specifically-funded financial reserves to insure fulfillment of the warranty for the full term. Warranty may exclude damage caused by weather events such as lightning or hail damage, improper installation, vandalism or abuse, unauthorized repairs or alterations, or product made by other manufacturers.
- C. Maintenance: Manufacturer shall monitor the performance of the lighting system (maintain 50 foot candles during warranty period), including on/off status, hours of usage and luminaire outage for 25 years from the date of equipment shipment. Parts and labor shall be covered such that individual luminaire outages will be repaired when the usage of any field is materially impacted. Manufacturer is responsible for removal and replacement of failed luminaires, including all parts, labor, shipping, and equipment rental associated with maintenance. Owner shall be responsible to check fuses in the event of a luminaire outage.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION(NOT USED)

*** * END OF SECTION * ***

NOTICE OF FINAL SETTLEMENT

NOTICE is hereby given that the contract between the City of Hattiesburg, Mississippi, as Owner and Mississippi Power Company dated March 8, 2024, for the Tatum Park Field 16 Lighting project, as per approved plans and specification on file in the City Clerk's Office, has been fully and completely performed and exercised, and that final settlement thereof and thereunder will be made.

THIS NOTICE is given pursuant to and under the terms and provisions of Section 31-5-53, Mississippi Code of 1972, annotated as amended and pursuant to the authority conferred by Order of the Mayor and City Council of Hattiesburg, Mississippi, appearing for record upon and as part of the official minutes of said City of Hattiesburg.

WITNESS my signature and the official seal of said City, on this the 18th day of March, 2025,
A.D.

CITY OF HATTIESBURG, MISSISSIPPI

BY: _____
CITY CLERK

(S E A L)

Publish (1) Sunday, March 23, 2025
Return PROOF to City Clerk's Office
P O Box 1898
Hattiesburg, MS 39403



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Wiley Quinn, Urban Development Director
cc: Ann Jones, Chief Administrative Officer
Date: Tuesday, March 18, 2025
Re: Take from the Table: Accept the Planning Commission's recommendation to approve a request for a preliminary plat for a major subdivision made by Legacy Park Residential, LLC, Property Owner/Applicant, for an R-1B zoned property located on Beverly Hills Road (PPIN 26210, Ward 1, Forrest County).
File Number: 2025-157
Minute Book #

Summary

Recommendation Statement

The Planning Commission recommended to approve.

Please place this on the March 18, 2025 City Council meeting for consideration.

February 2025 HPC Item: A

Legacy Park Residential, LLC, Property Owner/Applicant, John Anglin, Engineer, Dennis Poulsen, Representative, and Vive Legacy Park LLC, by Timothy Vest, Manager, Property Owner,
Request for: **Major Subdivision**



**URBAN
DEVELOPMENT
PLANNING DIVISION**

**Planning Commission
Case Fact Sheet**

Names of Petitioner: Legacy Park Residential, LLC, Property Owner/Applicant, John Anglin, Engineer, Dennis Poulsen, Representative, and Vive Legacy Park LLC, by Timothy Vest, Manager, Property Owner,

Address of Property:
Beverly Hills Road

Tax Parcels
2-028D-06-039.00

PPIN:
26210

Ward:
1

Request: Major Subdivision

Purpose of Request: Legacy Park Residential, LLC, Property Owner/Applicant, John Anglin, Engineer, Dennis Poulsen, Representative, and Vive Legacy Park LLC, by Timothy Vest, Manager, Property Owner, request approval for a preliminary plat for a major subdivision for a R-1B property located on Beverly Hills Road (PPIN 26210, Ward 1, Forrest County).

History / Background: The applicant met with staff in a pre-application meeting to discuss establishing the Beverly Hills Homes as a formal subdivision. Currently, all of the homes are located on a single parcel and are considered legally non-conforming with the current R-1B zoning district.

The Hattiesburg City Council approved the subdivision of the property on July 19, 2006, under the previous land development code. The property was also approved by the Site Plan Design and Review Committee for subdivision on June 8, 2007, before the adoption of the current Land Development Code. However, it appears that the subdivision did not complete the final required steps with both the City of Hattiesburg and Forrest County. Despite this, the property was constructed and has been used as a multi-family housing complex since its

February 2025 HPC Item: A

Legacy Park Residential, LLC, Property Owner/Applicant, John Anglin, Engineer, Dennis Poulsen, Representative, and Vive Legacy Park LLC, by Timothy Vest, Manager, Property Owner,
Request for: **Major Subdivision**

completion. The current owner purchased the property in 2024 with the intention of selling each house/parcel individually.

Since the plat was never properly finalized and the Land Development Code has since been updated, the property must now adhere to the current requirements for establishing a major subdivision. All proposed lots will need to meet the minimum dimensional requirements for the R-1B zoning district.

The proposed subdivision involves creating new publicly owned streets and other infrastructure. Any infrastructure that will be dedicated to the City must be upgraded or repaired to meet current City standards before the plat can be filed. If the subdivision is approved, the infrastructure and plat requirements will follow the updated subdivision regulations in the Land Development Code and be reviewed by the Site Plan Design and Review Committee.

Applicant Summary: * See Attached *

Applicable Regulations:

SECTION 4

Zoning Districts Established

4.5.10 R-1B Single-Family Residential District: The purpose of the R-1B District is to permit single-family residential uses with related recreational, religious and educational facilities. This district is consistent with the Neighborhood Conservation 1 and 2 districts in the Comprehensive Plan. This zoning district encourages protected lower-density residential neighborhoods with only compatible supporting institutional uses and open space.

February 2025 HPC Item: A
 Legacy Park Residential, LLC, Property Owner/Applicant, John Anglin, Engineer, Dennis Poulsen, Representative, and Vive Legacy Park LLC, by Timothy Vest, Manager, Property Owner,
 Request for: **Major Subdivision**

SECTION 4 Zoning Districts Established

Table 6.1 Dimensional Standards										
District	Minimum Lot Size in SF/ Width at Setback	Max. Dwelling Units	Max. Floor Area Ratio	Setbacks in feet				Max. Height*	Max. Impervious Surface Lot Coverage	Buffer in Feet
				Min. Front	Max. Front	Min. Side	Min. Rear			
R-1A	10,000/ 50	1 per lot	-	30	-	10	25	35 feet or 3 stories	50%	-
R-1B	7,500/ 50	1 per lot	-	25	-	10	25	35 feet or 3 stories	50%	-
R-1C	5,000/ 50	1 per lot	-	20	-	10	25	35 feet or 3 stories	50%	-
R-2	4,000/ 40	2 per lot	-	20	-	10	20	35 feet or 3 stories	50%	-
R-3	7,500/ 40	17 per acre	-	20	-	5	20	35 feet or 3 stories	50%	-

SECTION 11 Administration and Enforcement

11.10.1.8 Subdivision Violations. The owner of a subdivision shall not transfer title to any lot in such subdivision until such time as the final plat has been approved by the appropriate authority as outlined in this Code and duly recorded in the office of the Chancery Clerk of Forrest County or Lamar County, Mississippi. Transfers prior to such approval and recording shall be deemed a violation of this Code and shall be subject to any and all remedies available to the City.

11.10.1.9 Recording Violations.

The Chancery Clerks of Forrest County and Lamar County, Mississippi shall not receive, file or record a plat of a subdivision within the jurisdiction of this Land Development Code without prior approval of the appropriate authority as outlined in this Code. Plats recorded prior to such approval shall be deemed unlawful and invalid

SECTION 12 Process and Procedures

Categories of Development Approvals

12.3.2 Preliminary Plat Approval for Major Subdivisions

12.3.2.1 Approval Criteria.

- Conformance with the Hattiesburg Comprehensive Plan.
- Conformance with the standards of the zoning district.

iii. Conformance with other standards and requirements of this Code and other City policies and regulations.

iv. Determination that adequate public facilities and services will be available concurrent with the impacts of the subdivision.

v. Determination that the project will have little or no adverse or negative impacts upon the natural environment.

12.3.2.4 Final Plat.

i. No Significant Change. Final plats of major subdivisions that are substantially the same as the approved preliminary plat, as determined by the Site and Design Review Committee, shall be approved administratively.

ii. Significant Change. Final plats that exhibit any significant deviation from the approved preliminary plat, as determined by the Site Plan Review Committee, shall require approval by the Planning Commission.

12.3.2.5 Recording.

In order to be an official and legal plat, the final approved plat must be recorded along with all applicable covenants, deed restrictions and property owners' association documents with the Chancery Clerk of Forrest or Lamar County, as appropriate. The City Engineer shall ensure that the City records this information in a timely fashion.

Present Zoning: The property is currently zoned R-1B (Single-Family Residential).

Present Use: Single-Family Residential.

Future Land Use: Neighborhood Conservation District 2

Surrounding Zoning and Land Use:
North: R-1B Single-Family Residential
South: R-1B Single-Family Residential
East: R-3 Multi-Family Residential
West: R-1B Single-Family Residential

Letters or Concerns stated: As of finalizing this report, the Planning Division Office had

February 2025 HPC Item: A
Legacy Park Residential, LLC, Property Owner/Applicant, John Anglin, Engineer, Dennis Poulsen, Representative, and Vive Legacy Park LLC, by Timothy Vest, Manager, Property Owner,
Request for: **Major Subdivision**

received no calls or letters of concern.

Option: Recommend **Approval** or **Denial** of a preliminary plat for a major subdivision for a R-1B property located on Beverly Hills Road (PPIN 26210, Ward 1, Forrest County).

Basis for approval: **Approve or deny** a preliminary plat for a major subdivision in the City of Hattiesburg.

Planning Commission must deem that all of the following approval criteria must be met before granting approval for the Preliminary Plat for a Major Subdivision:

12.3.2 Preliminary Plat Approval for Major Subdivisions

12.3.2.1 Approval Criteria.

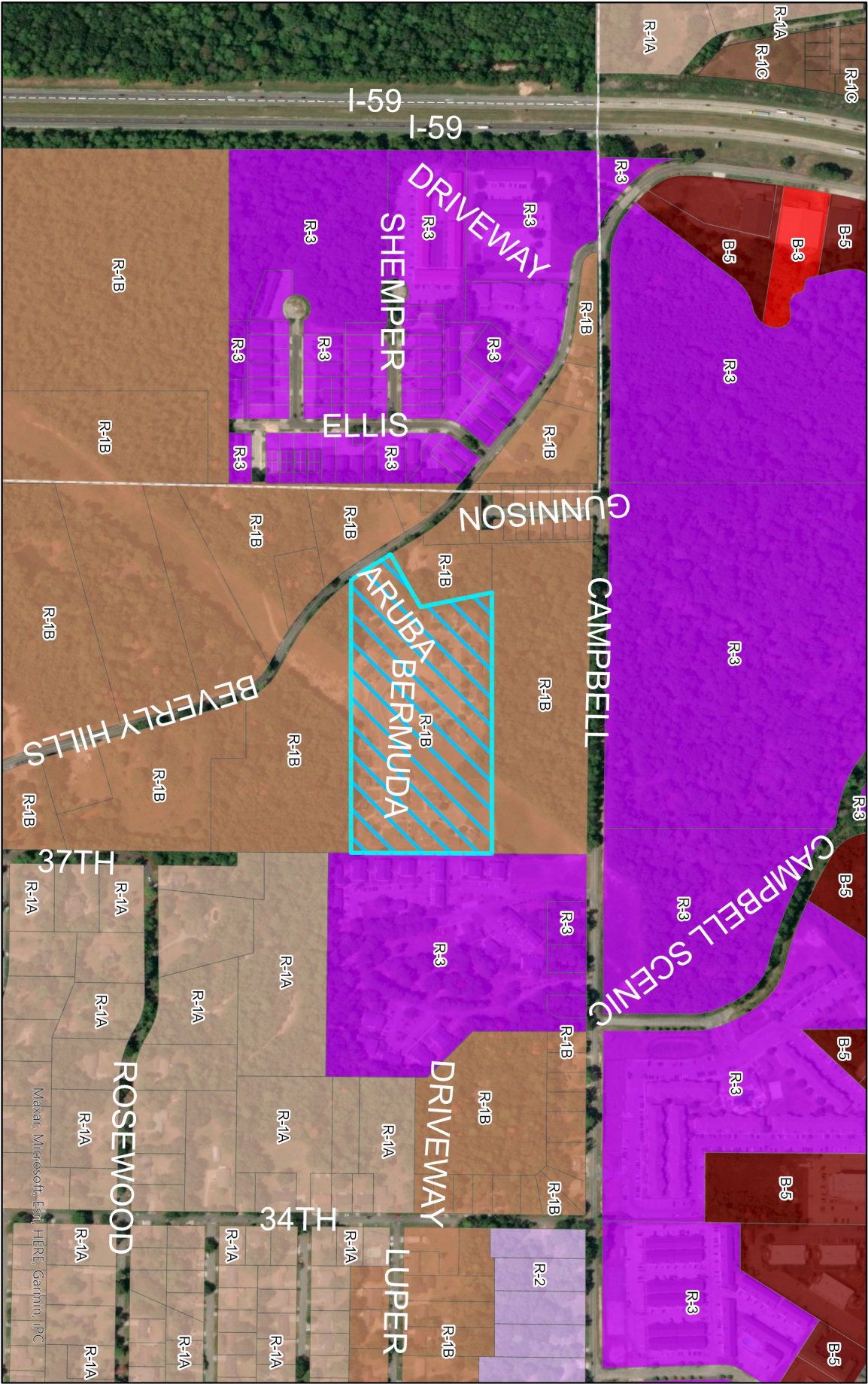
- i. Conformance with the Hattiesburg Comprehensive Plan.
- ii. Conformance with the standards of the zoning district.
- iii. Conformance with other standards and requirements of this Code and other City policies and regulations.
- iv. Determination that adequate public facilities and services will be available concurrent with the impacts of the subdivision.
- v. Determination that the project will have little or no adverse or negative impacts upon the natural environment.

SUBJECT PARCEL

Beverly Hills Road— Major Subdivision Request

Legacy Park Residential, LLC, Property Owner/Applicant, John Anglin, Engineer, Dennis Poulsen, Representative, and Vive Legacy Park LLC, by Timothy Vest, Manager, Property Owner, request approval for a preliminary plat for a major subdivision for a R-1B property located on Beverly Hills Road (PPIN 26210, Ward 1, Forrest County).





Zoning Map

 Subject Property  R-2

 R-1A  R-3

 R-1B  B-3

 R-1C  B-5

Request for Major Subdivision
Beverly Hills Homes
8 Aruba Drive
PPIN: 26210
Flood Zone: X
Ward 1, Forrest County

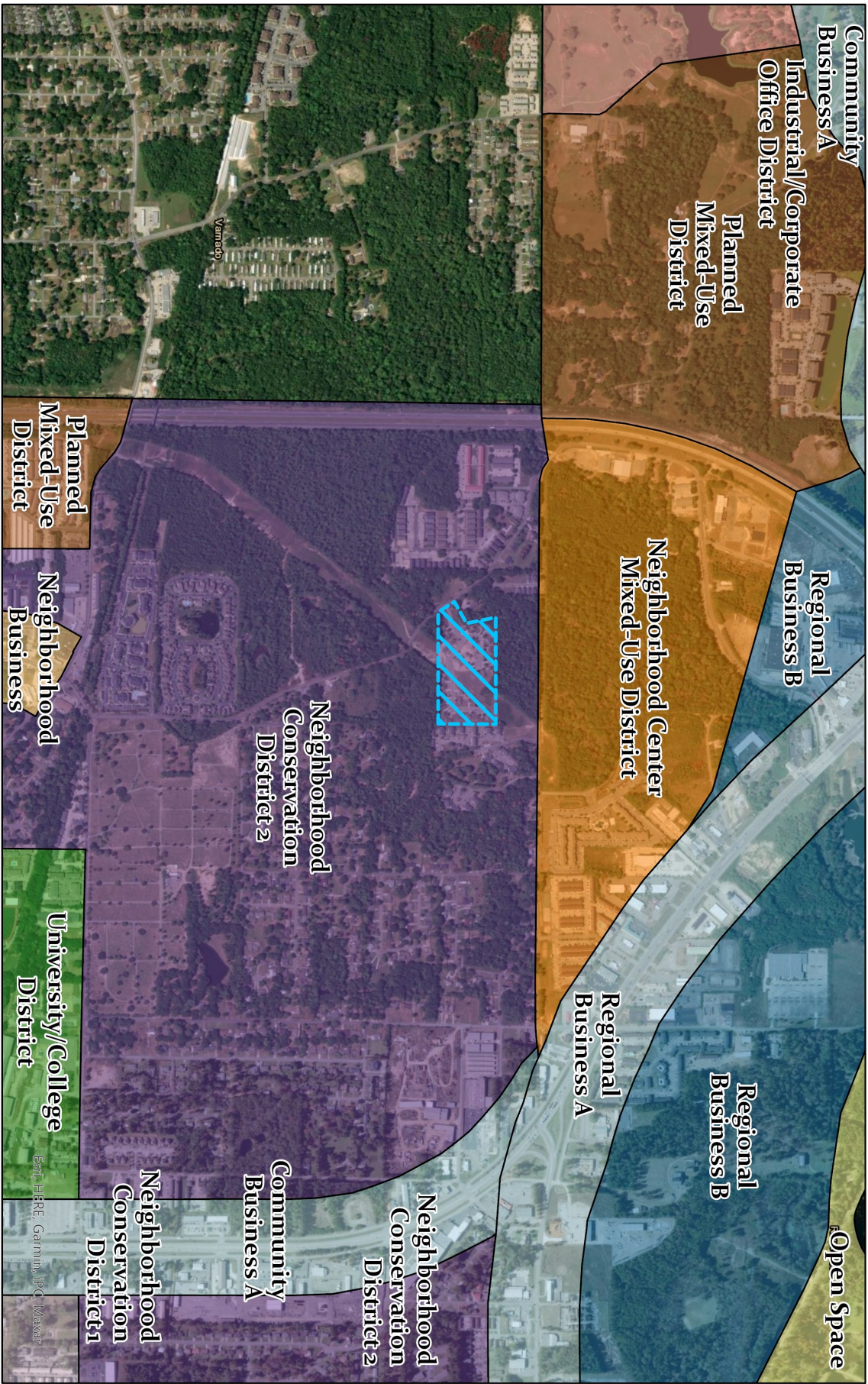
DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data.
This information CANNOT be used as a substitute for legal, business, tax or other professional advice.
Map Exported on: 1/13/2025 2:00 PM

01,000
Feet



URBAN DEVELOPMENT
PLANNING DIVISION

Center: 89°20'44"W 31°20'42"N



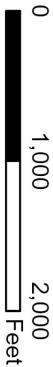
Future Land Use Map

- Subject Property
- Community Business A
- Industrial/Corporate Office District
- Neighborhood Business
- Neighborhood Center Mixed-Use District 1
- Neighborhood Conservation District 1
- Neighborhood Conservation District 2
- Open Space
- Planned Mixed-Use District
- Regional Business A
- Regional Business B
- University/College District

DISCLAIMER: This map is ONLY FOR REFERENCE. There is NO WARRANTY of the accuracy of data. This information CANNOT be used as a substitute for legal, business, tax or other professional advice. Map Exported on: 1/13/2025 2:33 PM

Request for Major Subdivision

Beverly Hills Homes
8 Aruba Drive
PPIN: 26210
Flood Zone: X
Ward 1, Forrest County



URBAN DEVELOPMENT
PLANNING DIVISION

Center: 89°20'40"W 31°20'39"N

Site Aerial

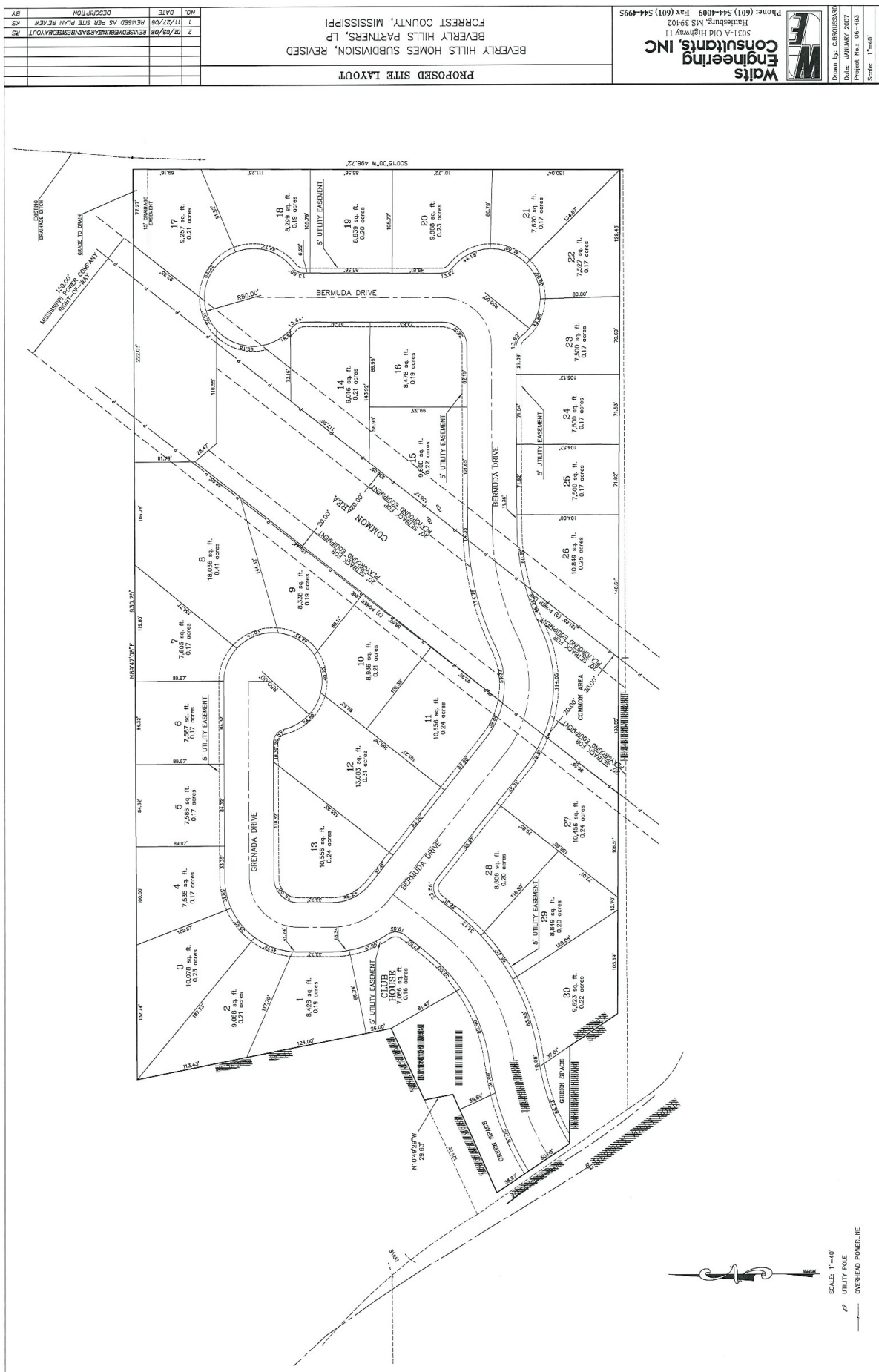


Property



Surrounding Area







URBAN DEVELOPMENT PLANNING DIVISION

Public Hearing Application

P.O. BOX 1898 (200 Forrest Street/39401)
Hattiesburg, MS 39403-1898

Department of Urban Development
(601) 545-4599 or FAX (601) 545-1962

APPLICANT:

Applicant Name: Legacy Park Residential, LLC

Project Name: Beverly Hills Homes

Proposed Use(s): Subdivision

Project Street Address: Beverly Hills Rd, Hattiesburg, MS 39402

PPIN Number(s) (if unknown, can be found on tax receipt): 26210

Application for (check all appropriate types):

- | | |
|--|--|
| ☐ Variance (see below) | ☐ Conditional Use (see below) |
| ☒ Subdividing of Lot, Parcel, or Tract (see p. 12) | ☐ Re-Zoning (see below) |
| ☐ Street or Alley Renaming (see pp. 13-14) | ☐ Overlay District |
| ☐ Vacating Street or Alley (see pp. 13-14) | ☐ Planned Mixed-Use District |

For Variance Only (check all appropriate variance types), see pp. 7 & 8:

- | | | |
|---------------------------------------|---|---|
| ☐ Sign | ☐ Setback (front, side, or rear _____) | ☐ Off-Site Parking |
| ☐ Lot Width | ☐ Lot Coverage Area | ☐ Buffer |
| ☐ Other: _____ | ☐ Open Space | |

For Conditional Use Permit Only (check applicable type), see pp. 9 & 10:

- | | |
|---|---|
| ☐ Automotive Filling Station | ☐ Telecommunications |
| ☐ Digital Billboard, New | ☐ Digital Billboard, Replacement |
| ☐ Restaurant | ☐ Solar Farm |
| ☐ Other: _____ | |

For Re-Zoning Only, see p. 11:

Existing Zoning: _____

Proposed Zoning: _____

PLEASE BE SURE TO FILL OUT PP. 1-5 AND SEE FEES ON P. 6

STAFF USE ONLY – Do Not Complete:

Pre-Application Date: _____ Planner: _____

Parcel Number(s): _____ Historic District(s): _____

Flood Zone(s): _____ Zoning District(s): _____

Project No.: _____

Code Sections:

LDC Section No. _____

Section No. _____

Section No. _____

Section No. _____

Section No. _____

RECEIVED DATE & INITIALS:

OWNER AFFIDAVIT PAGE

THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE OWNER(S) OF THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the **OWNER(s)** of the subject property located at
BEVERLY HILLS RD HATTIESBURG MS
Street Address City State
on this the 19th day of DECEMBER, 2024.

In the matter of this request, the property owner further authorizes the following named person(s) to represent them at the public hearing on this petition.

DENNIS POULSEN
on this the 19th day of DECEMBER, 2024.

TIMOTHY VEST
Property Owner (print)

[Signature]
Property Owner (signature)

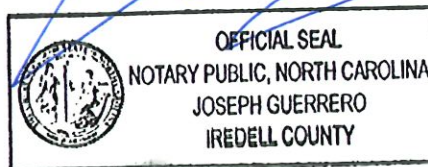
STATE OF NORTH CAROLINA
COUNTY OF MECKLENBURG

Personally came and appeared before me, the within named

TIMOTHY VEST
who signed and delivered the above and foregoing instrument as and for their free act and deed on the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 19 day of December, 2024.

[Signature]
NOTARY PUBLIC



My Commission Expires:

10/01/2026

APPLICANT AFFIDAVIT PAGE

THIS PAGE MUST BE SIGNED IN FRONT OF A NOTARY, BY THE **APPLICANT** OF THIS PETITION, ONLY IF DIFFERENT FROM THE OWNER(S) OF THE SUBJECT PROPERTY

WITNESS THE SIGNATURES of the **APPLICANT(s)** of the subject property located
at BEVERLY HILLS RD HATTIESBURG MS
Street Address City State

on this the 19th day of DECEMBER, 2024

TIMOTHY VEST
Applicant (print)

[Signature]
Applicant (signature)

STATE OF NORTH CAROLINA

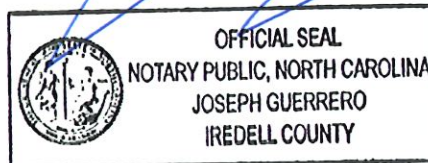
COUNTY OF McKENNENBURG

Personally came and appeared before me, the within named

TIMOTHY VEST,
who signed and delivered the above and foregoing instrument as and for their free act and deed on the day and year therein mentioned, and who acknowledge to me that they are the owner(s) of the subject property as described in this Public Hearing Application.

GIVEN UNDER MY HAND AND OFFICIAL SEAL OF OFFICE, this the 19 day of December, 2024.

[Signature]
NOTARY PUBLIC



My Commission Expires:

10/01/2026

PLANNING COMMISSION & BOARD OF ADJUSTMENT – PETITIONER
REQUIRED SUBMITTAL INFORMATION

Deadline for applicant to file petition: _____ 5:00pm (End of business day)
Hattiesburg Planning Commission Meeting Date: _____ Time: 1:00pm
Hattiesburg Board of Adjustment Meeting Date: _____ Time: 3:30pm

There is a 10-day appeal period, required by State Law, between the Planning Commission Meeting and/or Board of Adjustment Meeting and the City Council Meeting – appeals must be filed within this 10-day period.

City Council Agenda Review Date – (you or your representative should attend): _____ Time: 4:00pm
City Council Meeting (Vote) Date – (you or your representative may attend): _____ Time: 5:00pm

There is an additional 10-day appeal period, required by State Law, after City Council Meeting, for all Variances and Conditional Use Permit which ends _____ and a 30-day wait period for Zoning or Street closing/re-naming, PMUs, PRDs, PUDs which ends _____. So, if approved by the City, no final site plan review approvals or building permits could be issued prior to these dates.

****Dates and times are subject to change****

If an appeal is filed or the petition is tabled for any reason at any stage, the above listed dates would need to be revised.

The following paperwork **MUST** be attached to this application:

- ___ Site Diagram (11" x 17" preferred size): Drawing to scale prepared by professional engineer/surveyor showing lot dimensions, existing/proposed building, signs, parking areas, etc. (Different standard may be accepted only per approval from staff)
- ___ Site & Design Review Committee, if needed.
- ___ Copy of entire Warranty Deed (filed and recorded at courthouse) with legal description granting title to current owner. (If the Warranty Deed covers a larger piece of property than the current project, a legal description for this project site only may also be required)
- ___ Electronic/Digital copy of legal description **REQUIRED** for all public notices, saved as Word or text document OR emailed to planning@hattiesburgms.com
- ___ An affidavit (pages 3 & 4) attesting that the applicant or representing party (if other than the owner) is acting on behalf of the owner(s) of record. The affidavit must be sworn to before a notary public or other appropriate official. (Included in owners signature page, or may be a separate document)
- ___ **Variance application only:** A letter of approval/denial from all adjoining property owners must be obtained and submitted with application.
- ___ Other documents needed (per Planning Division):
 - ___ Maps of digital billboard removal sites ___ Maps of digital billboard replacement sites
 - ___ Documentation on measurements ___ Other: _____
- ___ Payment to the City of Hattiesburg for filing application in the amount of \$_____.

**You may be responsible for posting a sign (prepared by Planning Division staff)
a minimum of fifteen (15) days prior to the hearing date.**

You will be responsible for maintaining the sign for the duration of the public hearing process.

Required Fees

All fees adopted by Ordinance No. 2977, adopted January 22, 2008, as amended. This is an excerpt from that ordinance:

Public Hearing Fees:

Variance (includes Concept Site Plan Review) ----- and one Variance request; plus \$50.00 for each additional variance request within same application	\$175.00 per application
Street/Alley Naming or Re-Naming----- plus \$100.00 per required street name sign if approved* (*Fees for replacement street signs shall be paid after City Council approval, but prior to effective date.)	\$300.00 per application,
Street/Alley Closing -----	\$300.00 per application
(Conditional) Use Permit -----	\$200.00 per application
Zoning Change ----- (*see PUD or PRD & zoning package rate)	\$400.00 per application*
Planned Unit Development (PUD) or Planned Residential Development (PRD), & (Planned Mixed-Use District PMU) ----- (*see PUD or PRD zoning package rate) or (**see PUD or PRD & Subdivision of Land package rate)	\$400.00 per application
Planned Unit Development (PUD) or Planned Residential Development (PRD) with zoning change package ----- application	\$600.00 per package
Subdivision of Land (Preliminary Plats) ----- plus \$10.00 for each created lot (** see PUD or PRD & Subdivision of Land package rate) Note: Final Plats should be submitted to the governing body for approval within 12 months of approval of preliminary plats.	\$225.00 per application,
Planned Unit Development (PUD) or Planned Residential Development with Subdivision of Land Package** ----- plus \$10.00 for each created lot (**see PUD or PRD & Subdivision of Land package rate)	\$500.00 per application,
Change in Land Development Code Text -----	\$200.00 per application
Appeal Fees for Proponent or Opponent appeals to City Council ----- Exempt from fees – Established Neighborhood Associations	\$50.00 per appeal
Cancellation/Re-notification fee on any public hearing process (Planning Commission or City Council) that is tabled or cancelled at the owner/developer's Request ----- mailing labels)	\$50.00 (per each 100

OTHER PROCESSES MAY HAVE ADDITIONAL FEES

Make all checks payable to the City of Hattiesburg

Subdividing of Lot, Parcel or Tract Information

1. Property data:
- Parent Parcel / Existing** lot/parcel/tract contains 10.5 Square-Footage/Acres
- Lot Area Requirement: 7500 sq ft
- Lot Frontage Requirement: 50 ft at setback
- Existing use of lot/parcel/tract Undeveloped
- To be subdivided into 30 lots/parcels (including parent parcel) – outlined below.

Use extra copies of this form if needed for additional lots.

Newly subdivided Parcels	New lot size in square footage (sf) or acres (A)	New lot has public road frontage (yes / no)	New lot has private road frontage (yes / no)	Indicate name of public or private road(s)	Staff - Lot area & frontage requirements comply?	
					Yes	No
1.		SEE ATTACHED PLAT				
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
Be sure to include information on the remainder of “existing” lot after splits made – identified as “Parent Parcel”						
Parent Parcel						
		Total square footage of new lots (verify total matches existing parcel prior to splits)				

2. Infrastructure required:
- Water/Sewer _____ Gas _____ Electric _____ Telephone _____ Cable _____ Streets _____



DEED
BK:1413 PAGE:696-702
RCD:2/1/2023 @ 11:02:25 AM
Forrest County, MS
Lance C. Reid Chancery Clerk

Prepared By:

Joseph Klein
Klein Law Firm
9201 Wilshire Boulevard, Suite 104
Beverly Hills, California 90210
Telephone: (310) 907-5200

Return To:

Legacy Park Residential, LLC
12132 Captains Landing
North Palm Beach, Florida 33408
Attn: Joseph F. Biggins
Telephone: (561) 291-0112

Indexing Instructions:

A part and parcel of the Northwest 1/4 of the Northwest 1/4
Section 6, Township 4 North, Range 13 West, Forrest
County, Mississippi

STATE OF MISSISSIPPI

COUNTY OF FORREST

SPECIAL WARRANTY DEED

THAT FOR AND IN CONSIDERATION of the sum of Ten and no/100 Dollars (\$10.00),
cash in hand paid, and other good and valuable consideration, the receipt and sufficiency of all of
which is hereby acknowledged,

Beverly Hills Partners LP, a Mississippi limited partnership
Attn: Legal Department
777 S. Figueroa Street, 16th Floor
Los Angeles, California 90017-5800

(213) 533-3700

does hereby grant, bargain, sell, convey and warrant specially, unto

Legacy Park Residential, L.L.C, a Florida limited liability company
Attn. Joseph F. Biggins
12132 Captains Landing
North Palm Beach, Florida 33408
(501) 291-0112

the following described property, together with the improvements, hereditaments and appurtenances thereunto situated and located in the County of Forrest, State of Mississippi, and more particularly described as follows, to-wit:

See Exhibit A

The Property is conveyed subject to those matters described on Exhibit B attached hereto (the "Permitted Exceptions"), all of which are excepted from the special warranty of title contained herein but none of which are intended to be imposed or reimposed upon the property by virtue hereof.

Estimated county ad valorem taxes have been prorated between the parties as a part of the consideration for this conveyance. In the event the estimates upon which such proration is based prove to be inaccurate for any reason, the Grantee agrees to refund any excess, and the Grantor agrees to pay any deficiency, upon receipt of a copy of the tax statement for the current year and a computation of the true amount due, based on a 365 day year.

Except for the special warranty of title set forth herein, the property is being conveyed in an "AS IS, WHERE IS, AND WITH ALL FAULTS" condition as more specifically provided in the Purchase and Sale Agreement between Seller/Grantor and Buyer/Grantee.

TO HAVE AND TO HOLD the property, together with all rights and appurtenances pertaining thereto, unto Grantee and Grantee's successors, heirs, and assigns forever, and Grantor

does hereby bind itself and its successors and assigns to warrant and forever defend the said property unto Grantee and Grantee's successors, heirs, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof by, through, or under Grantor, but not otherwise, subject, however, to the Permitted Exceptions.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK.

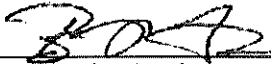
ALL SIGNATURES ARE ON THE FOLLOWING PAGE.

WITNESS THE SIGNATURE of the Grantor on this the 26th day of January, 2023.

Beverly Hills Partners LP, a Mississippi limited partnership

By: MBS GP 159, L.L.C., a Delaware limited liability company, its general partner

By: Aztec OP GP Owner LLC, a Delaware limited liability company, its Sole Member

By: 
Name: Benjamin Finley
Title: Authorized Signatory

ACKNOWLEDGEMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

On January 26, 2023, before me, Rebecca Monzon, Notary Public
personally appeared Benjamin Finley,
who proved to me on the basis of satisfactory evidence to be the person(s) whose
name(s) is/are subscribed to the within instrument and acknowledged to me that
he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

(Seal)

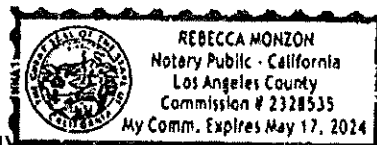


EXHIBIT "A" TO SPECIAL WARRANTY DEED
LEGAL DESCRIPTION OF PROPERTY

The Land referred to herein below is situated in the County of Forrest, State of Mississippi, and is described as follows:

A part and parcel of the Northwest quarter of the Northwest quarter of Section 6, Township 4 North, Range 13 West, Forrest County, Mississippi more particularly described as follows:

Commence at the Northwest corner of the Northwest quarter of the Northwest quarter of said Section 6, Township 4 North, Range 13 West, Forrest County, Mississippi and run East 210 feet; thence South 390 feet to the Northwest corner of a certain 13-Acre tract as described in Deed Book 967, Page 125 in the Office of the Chancery Clerk at Forrest County, Mississippi; thence continue South 182 feet; thence South 51 degrees East 115 feet; thence South 15 degrees West 116 feet to a point on the Northerly line of Beverly Hills Road (a local Public Road); thence South 34 degrees East along said road 89 feet; thence leaving said road run East 100 feet; thence South 34 degrees 30 minutes East 58.7 feet; thence East 862.54 feet to the East line of the Northwest quarter of the Northwest quarter of said Section 6; thence North 495.72 feet; thence South 89 degrees 33 minutes 37 seconds West 929.93 feet; thence South 11 degrees 29 minutes 28 seconds West 263.44 feet; thence South 65 degrees 06 minutes 49 seconds West 81.0 feet; thence South 11 degrees 03 minutes East 29.61 feet; thence South 65 degrees 47 minutes West 110.0 feet to the Point of Beginning, containing 10.5 Acres, more or less.

Above and foregoing description per survey prepared by T. E. McDonald, Inc., Thomas E. McDonald, RLS# 1661, State of Mississippi, dated November 15, 2006.

EXHIBIT "B" TO SPECIAL WARRANTY DEED
PERMITTED EXCEPTIONS

1. Declaration of Land Use Restrictive Covenants for Housing Tax Credits in Accordance with Section 42 of the internal Revenue Code by and between Beverly Hills Partners L.P. and the Mississippi Home Corporation, recorded October 13, 2008 in Book 1048, Page 729, aforesaid records, as affected by First Amendment to Declaration of Land Use Restrictive Covenants for Housing Tax Credits in Accordance with Section 42 of the internal Revenue Code, recorded January 22, 2019 in Book 1303, Page 341, aforesaid records,

CERTIFICATE OF DECLARATION OF OWNER AND SURVEYOR

STATE OF MISSISSIPPI, COUNTY OF FORREST, CITY OF HATTIESBURG

RECORD LEGAL DESCRIPTION

The undersigned Owner and Registered Land Surveyor do hereby declare and certify that this plat, designated as Beverly Hills Homes Subdivision, embraces and covers the following described land by metes and bounds.

A part and parcel of the Northwest quarter of the Northwest quarter of Section 6, Township 4 North, Range 13 West, Forrest County, Mississippi more particularly described as follows:

Commence at the Northwest corner of the Northwest quarter of the Northwest quarter of said Section 6, Township 4 North, Range 13 West, Forrest County, Mississippi and run East 210 feet; thence South 390 feet to the Northwest corner of a certain 13-Acre tract as described in Deed Book 967, Page 125 in the Office of the Chancery Clerk at Forrest County, Mississippi; thence continue South 182 feet; thence South 51 degrees East 115 feet; thence South 15 degrees West 116 feet to a point on the Northerly line of Beverly Hills Road (a local Public Road); thence South 34 degrees East along said road 89 feet; thence leaving said road run East 100 feet; thence South 34 degrees 30 minutes East 58.7 feet; thence East 862.54 feet to the East line of the Northwest quarter of the Northwest quarter of said Section 6; thence North 495.72 feet; thence South 89 degrees 33 minutes 37 seconds West 929.93 feet; thence South 11 degrees 29 minutes 28 seconds East 263.44 feet; thence South 65 degrees 06 minutes 49 seconds West 81.0 feet; thence South 11 degrees 03 minutes East 29.61 feet; thence South 65 degrees 47 minutes West 110.0 feet to the Point of Beginning, containing 10.5 Acres, more or less.



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Kermas Eaton, City Clerk
cc:
Date: Tuesday, March 18, 2025
Re: Ratification of a professional services agreement with Butler Snow LLP, in connection with the Mississippi 2024 Continuing Disclosure filing.
File Number: 2025-235
Minute Book #

Summary

Ratification of a professional services agreement with Butler Snow LLP, in connection with the Mississippi 2024 Continuing Disclosure filing.

Recommendation Statement

I recommend the ratification of this item.

Please place this on the March 18, 2025 City Council meeting for consideration.

BUTLER | SNOW

January 2, 2025

VIA E-MAIL AT KEATON@HATTIESBURGMS.COM

City of Hattiesburg, Mississippi
Attn: Kermas Eaton, City Clerk
P.O. Box 1898
Hattiesburg, MS 39403-1898

Re: City of Hattiesburg, Mississippi Fiscal Year 2024 Continuing Disclosure

Dear Mr. Eaton:

We are pleased to confirm our engagement as dissemination agent (the "Dissemination Agent") to The City of Hattiesburg, Mississippi (the "City") in connection with its annual continuing disclosure undertaking. We appreciate your confidence in us and will do our best to continue to merit it. This letter sets forth the role we propose to serve and the responsibilities we propose to assume as Dissemination Agent in connection with the Annual Filing for fiscal year ended September 30, 2024.

We understand that pursuant to Securities and Exchange Commission Rule 15c2-12, as amended from time to time (the "Rule"), the City is required to provide on an annual basis certain financial information and operating data to the Municipal Securities Rulemaking Board (the "MSRB") through the MSRB's Electronic Municipal Market Access system at www.emma.msrb.org ("EMMA"), in the electronic format then prescribed by the Securities and Exchange Commission (the "SEC") (the "Required Electronic Format") pursuant to the Rule.

We also understand that pursuant to the City's Policies and Procedures for Continuing Disclosure/SEC Rule 15c2-12 Compliance (the "Policy"), a staff designee of the City is required to appoint or engage a dissemination agent to assist in carrying out its obligations under the Policy and the Rule, and the City is hereby appointing us to serve as Dissemination Agent in connection with the Annual Filing for fiscal year 2024 to be filed on or before March 28, 2025.

SCOPE OF ENGAGEMENT

As Dissemination Agent we will examine the City's continuing disclosure responsibility, consult with parties to the City; compile the Annual Filing (with the assistance of the City) and file an Annual Filing for and on behalf of the City. We will rely upon information provided to us without undertaking to verify the same by independent investigation. During the course of this engagement, we will rely on you to provide us with complete and timely information on all developments pertaining to any aspect of the Annual Filing. We understand that you will direct members of your staff and other employees of the City to cooperate with us in this regard.

Our duties in this engagement are limited to those expressly set forth above.

ATTORNEY-CLIENT RELATIONSHIP

Upon execution of this engagement letter, the City will be our client and an attorney-client relationship will exist between us. We further assume that all other parties understand that in this transaction we represent only the City, we are not counsel to any other party, and we are not acting as an intermediary among the parties. Our services as Dissemination Agent are limited to those contracted for in this letter, and the City's execution of this engagement letter will constitute an acknowledgment of those limitations.

Our representation of the City and the attorney-client relationship created by this engagement letter will be concluded upon the filing of the Annual Filing.

PROSPECTIVE CONSENT

As you are aware, Butler Snow represents many political subdivisions, companies and individuals. It is possible that during the time that we are representing the City, one or more of our present or future clients will have transactions, litigation, or other matters with the City. We do not believe that such representation, if it occurs, will adversely affect our ability to represent you as provided in this engagement letter, either because such matters will be sufficiently different from the filing of the Annual Filing so as to make such representations not adverse to our representation of you, or because the potential for such adversity is remote or minor and outweighed by the consideration that it is unlikely that advice given to the other client will be relevant to any aspect of the issuance filing of the Annual Filing. The City's local counsel is hereby authorized to discuss and/or review with Butler Snow any such matters described in this paragraph (including any form of potential conflict waiver, if applicable). Execution of this engagement letter will signify the City's consent to our representation of others consistent with the circumstances described in this paragraph.

FEE STRUCTURE

Based upon: (i) our current understanding of the terms, structure, size and schedule of the Annual Filing, (ii) the duties we will undertake pursuant to this letter, (iii) the time we anticipate devoting to the Annual Filing, and (iv) the responsibilities we assume, our fee for this engagement will be \$3,000.00. Such fee may vary: (i) if material changes in the structure of the financing occur or (ii) if unusual or unforeseen circumstances arise which require a significant increase in our time or our responsibilities. If, at any time, we believe that circumstances require an adjustment of our original fee estimate, we will consult with you.

In addition, this letter authorizes us to incur expenses and make disbursements on behalf of the City, which we will include in our invoice. Disbursement expenses will include such items as travel costs, photocopying, deliveries and other out-of-pocket costs.

PUBLICITY CONCERNING THIS MATTER

Often projects and matters such as this are of interest to the public. Also, many clients desire favorable publicity. Therefore, you agree that we may respond to inquiries from the news media and we may initiate and publish information to the public on this matter (including but not

limited to our firm website) unless you instruct us not to do so. In any event, we will not divulge any non-public information regarding this matter.

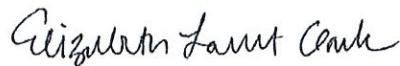
RECORDS

At your request, papers and property furnished by you will be returned promptly upon receipt of payment for outstanding fees and client charges. Our own files, including lawyer work product, pertaining to the transaction will be retained by us. For various reasons, including the minimization of unnecessary storage expenses, we reserve the right to dispose of any documents or other material retain by us after the termination of this engagement.

If the foregoing terms are acceptable to you, please so indicate by (1) returning the enclosed copy of this engagement letter dated and signed by an authorized officer; and (2) returning the material event notice certification dated and signed by an authorized officer, attached hereto as **Exhibit A**. Please retain a copy of the original engagement letter and material event notice certification for your files.

We look forward to working with you again on your Annual Filing.

BUTLER SNOW LLP



By: _____
Elizabeth Lambert Clark

Accepted and Approved:

THE CITY OF HATTIESBURG, MISSISSIPPI

BY:  _____
Mayor

Dated: 3/12/25

cc: Connie Everett, Chief Financial Officer, City of Hattiesburg, Mississippi (ceverett@hattiesburgms.com)
Randy Pope, Esq., City Attorney (randypope@popelaw.com)

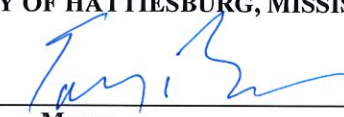
EXHIBIT A

Event Notice

The City certifies that none of the events have occurred with respect to the Bonds during fiscal year 2024:

1. Principal and interest payment delinquencies
2. Non-Payment related defaults, if material
3. Unscheduled draws on debt service reserves, if any, reflecting financial difficulties
4. Unscheduled draws on credit enhancements reflecting financial difficulties
5. Substitution of credit or liquidity providers, or their failure to perform
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (ITS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the bonds, or other material events affecting the tax status of the Bonds
7. Modifications to rights of Bondholders, if material
8. Bond calls, if material, and tender offers
9. Defeasances
10. Release, substitution, or sale of property, if any, securing repayment of the securities
11. Rating changes
12. Bankruptcy, insolvency, receivership or other similar event¹
13. The consummation of a merger, consolidation or acquisition involving the State or the sale of all or substantially all of the assets of the State, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material
15. Incurrence of a financial obligation² of the obligated person, *if material*, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the Issuer, any of which affect security holders, *if material*.
16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation² of the obligated person, any of which reflect financial difficulties.

CITY OF HATTIESBURG, MISSISSIPPI

BY: 

Mayor

Dated: 3-12-25

¹ For the purposes of the event identified in subparagraph (b)(5)(i)(C)(12) of the Rule, the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governing body and official or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

² For purposes of the events identified in subparagraphs (b)(5)(i)(C)(15) and (16) of the Rule, the term "financial obligation" is defined to mean a (A) debt obligation; (B) derivative instrument entered into in connection with or pledged as security or a source of payment for, an existing or planned debt obligation; or (C) a guarantee of (A) or (B). The term "financial obligation" does not include municipal securities as to which a final official statement has been otherwise provided to the MSRB consistent with the Rule. Numerous other terms contained in these subsections and/or in the definition of "financial obligation" are not defined in the Rule; SEC Release No. 34-83885 contains a discussion of the current SEC interpretation of those terms. For example, in the Release, the SEC provides guidance that the term "debt obligation" generally should be considered to include only lease arrangements that operate as vehicles to borrow money.



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Kermas Eaton, City Clerk
cc: System Admin
Date: Tuesday, March 18, 2025
Re: Acknowledge receipt of the monthly budget report for the month ending February 28, 2025.
File Number: 2025-232
Minute Book #

Summary

Monthly budget report for the month of February 2025.

Recommendation Statement

i recommend approval of this item.

Please place this on the March 18, 2025 City Council meeting for consideration.

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001 General Fund							
001003 CITY COUNCIL							
40 PERSONAL SERVICES							
001003 400000 REGULAR WAGES	270,000	270,000	114,240.37	20,778.87	.00	155,759.63	42.3%
001003 460000 STATE RETIREMENT	48,700	48,700	20,448.84	3,719.41	.00	28,251.16	42.0%
001003 470000 F.I.C.A. TAXES	21,200	21,200	8,282.66	1,498.21	.00	12,917.34	39.1%
001003 480000 HOSPITALIZATION INS.	58,800	58,800	23,074.00	8,614.80	.00	35,726.00	39.2%
TOTAL PERSONAL SERVICES	398,700	398,700	166,045.87	34,611.29	.00	232,654.13	41.6%
50 SUPPLIES & EXPENSES							
001003 501000 OTHER EXPENDABLE OFF	1,300	1,300	625.51	126.23	75.47	599.02	53.9%
001003 507000 BOOKS	400	400	.00	.00	25.66	374.34	6.4%
TOTAL SUPPLIES & EXPENSES	1,700	1,700	625.51	126.23	101.13	973.36	42.7%
60 PROFESSIONAL SERVICE							
001003 601000 AUDITING AND ACCOUNT	200,000	200,000	111,610.00	.00	.00	88,390.00	55.8%
001003 606000 TELEPHONE AND TELEGR	4,000	4,000	1,005.75	241.38	.00	2,994.25	25.1%
001003 611001 TRAVEL EXP-WARD 1	3,000	3,000	641.84	37.40	.00	2,358.16	21.4%
001003 611002 TRAVEL EXP-WARD 2	3,000	3,475	2,212.23	1,038.34	1,141.30	121.47	96.5%
001003 611005 TRAVEL EXP-WARD 5	3,000	3,000	583.98	318.00	.00	2,416.02	19.5%
001003 641000 OFFICE EQUIPMENT REN	1,800	1,800	125.24	125.24	.00	1,674.76	7.0%
001003 684501 REG FEE/TUITION-WARD	1,000	1,000	150.00	.00	.00	850.00	15.0%
001003 684502 REG FEE/TUITION-WARD	1,000	525	.00	.00	325.00	200.00	61.9%
001003 684505 REG FEE/TUITION-WARD	1,000	1,000	150.00	.00	.00	850.00	15.0%
001003 6845CL REG FEE/TUITION-CLER	2,000	2,000	.00	.00	70.00	1,930.00	3.5%
001003 6845DC REG FEE/TUITION-DEPC	2,000	2,000	.00	.00	70.00	1,930.00	3.5%
TOTAL PROFESSIONAL SERVICE	221,800	221,800	116,479.04	1,760.36	1,606.30	103,714.66	53.2%
TOTAL CITY COUNCIL	622,200	622,200	283,150.42	36,497.88	1,707.43	337,342.15	45.8%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001015 CITY COURT							
40 PERSONAL SERVICES							
001015 400000 REGULAR WAGES	887,000	887,000	373,832.65	69,168.60	.00	513,167.35	42.1%
001015 430000 OVERTIME	18,000	18,000	12,457.70	1,484.08	.00	5,542.30	69.2%
001015 460000 STATE RETIREMENT	163,200	163,200	68,052.53	12,339.65	.00	95,147.47	41.7%
001015 470000 F.I.C.A. TAXES	69,300	69,300	29,018.62	5,298.36	.00	40,281.38	41.9%
001015 480000 HOSPITALIZATION INS.	151,200	151,200	66,077.80	22,811.74	.00	85,122.20	43.7%
TOTAL PERSONAL SERVICES	1,288,700	1,288,700	549,439.30	111,102.43	.00	739,260.70	42.6%
50 SUPPLIES & EXPENSES							
001015 500300 PAPER	1,500	1,500	508.90	.00	199.00	792.10	47.2%
001015 501000 OTHER EXPENDABLE OFF	6,000	6,000	1,165.06	348.80	849.22	3,985.72	33.6%
001015 502000 MINOR OFFICE EQUIP/F	3,000	3,000	.00	.00	1,448.40	1,551.60	48.3%
001015 510000 CLEANING/JANITORIAL	5,000	5,000	1,301.28	.00	578.52	3,120.20	37.6%
001015 5594MC OTHER OPER - VICTIM	40,547	40,547	4,179.00	.00	.00	36,368.00	10.3%
TOTAL SUPPLIES & EXPENSES	56,047	56,047	7,154.24	348.80	3,075.14	45,817.62	18.3%
60 PROFESSIONAL SERVICE							
001015 604800 OTHER PROF.-SAMSA GR	141,828	141,828	120,326.58	45,225.36	.00	21,501.42	84.8%
001015 604900 OTHER PROFESSIONAL S	80,000	76,949	56,152.00	11,400.50	.00	20,797.00	73.0%
001015 604901 OTHER PROF-TECHNOLOG	95,000	95,000	75,013.10	71,214.66	3,813.48	16,173.42	83.0%
001015 606000 TELEPHONE AND TELEGR	6,000	6,000	2,374.52	504.35	.00	3,625.48	39.6%
001015 611800 TRVL-HHS SAMHSA GRAN	1,657	4,708	1,657.40	.00	1,670.00	1,380.60	70.7%
001015 620000 PRINTING	2,500	2,500	1,034.00	.00	.00	1,466.00	41.4%
001015 630000 GAS	1,000	1,000	80.00	20.00	.00	920.00	8.0%
001015 630500 ELECTRICITY	4,000	4,000	1,686.69	250.14	.00	2,313.31	42.2%
001015 635000 BUILDING R&M	3,000	3,000	2,328.65	2,328.65	.00	671.35	77.6%
001015 699900 SERVICES NOT SPECIFI	2,500	2,500	1,500.00	.00	.00	1,000.00	60.0%
TOTAL PROFESSIONAL SERVICE	337,485	337,485	262,152.94	130,943.66	5,483.48	69,848.58	79.3%
TOTAL CITY COURT	1,682,232	1,682,232	818,746.48	242,394.89	8,558.62	854,926.90	49.2%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001020 MAYOR/ADMIN.							
40 PERSONAL SERVICES							
001020 400000 REGULAR WAGES	650,500	650,500	283,607.55	52,370.34	.00	366,892.45	43.6%
001020 430000 OVERTIME	0	0	569.70	137.01	.00	-569.70	100.0%
001020 460000 STATE RETIREMENT	115,000	115,000	50,400.51	9,285.37	.00	64,599.49	43.8%
001020 470000 F.I.C.A. TAXES	50,000	50,000	21,363.35	3,941.61	.00	28,636.65	42.7%
001020 480000 HOSPITALIZATION INS.	67,200	67,200	28,860.20	8,412.60	.00	38,339.80	42.9%
TOTAL PERSONAL SERVICES	882,700	882,700	384,801.31	74,146.93	.00	497,898.69	43.6%
50 SUPPLIES & EXPENSES							
001020 501000 OTHER EXPENDABLE OFF	4,000	4,000	2,121.39	.00	546.89	1,331.72	66.7%
001020 502000 MINOR OFFICE EQUIP/F	1,000	1,000	469.99	.00	.00	530.01	47.0%
001020 505000 SUBSCRIPTIONS,MAGS,M	750	2,250	1,163.02	1,024.99	.00	1,086.98	51.7%
001020 511500 FOOD	1,900	1,900	1,776.82	146.25	.00	123.18	93.5%
001020 525000 GAS AND OIL	3,000	3,000	1,177.37	343.50	.00	1,822.63	39.2%
001020 5460PR MINOR EQUIPMENT PUB	7,000	7,000	248.97	.00	.00	6,751.03	3.6%
001020 570000 MTR VEHICLE REP. PTS	2,000	2,000	236.00	47.20	.00	1,764.00	11.8%
TOTAL SUPPLIES & EXPENSES	19,650	21,150	7,193.56	1,561.94	546.89	13,409.55	36.6%
60 PROFESSIONAL SERVICE							
001020 604900 OTHER PROFESSIONAL S	17,200	17,200	839.48	.00	.00	16,360.52	4.9%
001020 606000 TELEPHONE AND TELEGR	5,000	5,000	1,460.57	337.15	.00	3,539.43	29.2%
001020 611000 TRAVEL EXPENSE	30,000	30,000	8,665.57	3,204.37	.00	21,334.43	28.9%
001020 615000 ADVERTISING	73,300	64,900	24,800.00	5,000.00	.00	40,100.00	38.2%
001020 6150PR ADVERTISING-PUBLIC R	3,000	3,000	210.00	.00	.00	2,790.00	7.0%
001020 615200 ADVERTISING-SPEC. EV	4,000	6,000	4,200.00	.00	.00	1,800.00	70.0%
001020 615300 ADVERTISING-MAYOR'S	10,000	10,000	3,491.07	.00	159.00	6,349.93	36.5%
001020 615600 ADVERTISING-USM-ISP	35,000	41,400	41,367.00	.00	.00	33.00	99.9%
001020 615700 ADVERTISING-WILLIAM	7,000	10,000	10,000.00	.00	.00	.00	100.0%
001020 620000 PRINTING	1,500	1,500	270.00	.00	.00	1,230.00	18.0%
001020 638400 MOTOR VEHICLE EQ. R&	2,250	2,250	1,799.11	1,799.11	.00	450.89	80.0%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001020 641000 OFFICE EQUIPMENT REN	5,000	5,000	1,821.36	.00	.00	3,178.64	36.4%
001020 644900 OTHER RENT	0	1,500	748.00	.00	.00	752.00	49.9%
001020 684000 DUES AND MEMBERSHIPS	15,000	15,000	250.00	.00	.00	14,750.00	1.7%
001020 684500 REGISTRATION FEE/TUI	4,900	4,900	4,243.07	1,300.00	.00	656.93	86.6%
TOTAL PROFESSIONAL SERVICE	213,150	217,650	104,165.23	11,640.63	159.00	113,325.77	47.9%
70 CAPITAL OUTLAY							
001020 739900 OTHER EQUIPMENT	2,500	4,500	4,152.45	.00	.00	347.55	92.3%
TOTAL CAPITAL OUTLAY	2,500	4,500	4,152.45	.00	.00	347.55	92.3%
TOTAL MAYOR/ADMIN.	1,118,000	1,126,000	500,312.55	87,349.50	705.89	624,981.56	44.5%
001030 ELECTIONS							
40 PERSONAL SERVICES							
001030 400000 REGULAR WAGES	31,200	31,200	795.00	795.00	.00	30,405.00	2.5%
001030 470000 F.I.C.A. TAXES	2,400	2,400	60.82	60.82	.00	2,339.18	2.5%
TOTAL PERSONAL SERVICES	33,600	33,600	855.82	855.82	.00	32,744.18	2.5%
50 SUPPLIES & EXPENSES							
001030 500300 PAPER	600	600	.00	.00	57.70	542.30	9.6%
TOTAL SUPPLIES & EXPENSES	600	600	.00	.00	57.70	542.30	9.6%
60 PROFESSIONAL SERVICE							
001030 612000 FREIGHT	250	250	121.92	121.92	.00	128.08	48.8%
001030 620000 PRINTING	10,000	10,000	5,157.72	5,157.72	905.64	3,936.64	60.6%
TOTAL PROFESSIONAL SERVICE	10,250	10,250	5,279.64	5,279.64	905.64	4,064.72	60.3%
TOTAL ELECTIONS	44,450	44,450	6,135.46	6,135.46	963.34	37,351.20	16.0%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001040 MUNICIPAL CLERK							
40 PERSONAL SERVICES							
001040 400000 REGULAR WAGES	140,700	140,700	42,216.81	8,076.93	.00	98,483.19	30.0%
001040 460000 STATE RETIREMENT	25,600	25,600	7,556.79	1,445.77	.00	18,043.21	29.5%
001040 470000 F.I.C.A. TAXES	10,900	10,900	3,176.16	607.19	.00	7,723.84	29.1%
001040 480000 HOSPITALIZATION INS.	33,600	33,600	12,021.00	4,804.20	.00	21,579.00	35.8%
TOTAL PERSONAL SERVICES	210,800	210,800	64,970.76	14,934.09	.00	145,829.24	30.8%
50 SUPPLIES & EXPENSES							
001040 501000 OTHER EXPENDABLE OFF	2,000	2,000	569.61	61.82	.00	1,430.39	28.5%
TOTAL SUPPLIES & EXPENSES	2,000	2,000	569.61	61.82	.00	1,430.39	28.5%
60 PROFESSIONAL SERVICE							
001040 606000 TELEPHONE AND TELEGR	350	350	311.58	81.46	.00	38.42	89.0%
001040 615000 ADVERTISING	22,000	22,000	9,770.81	206.76	.00	12,229.19	44.4%
001040 620000 PRINTING	1,200	1,200	223.99	.00	.00	976.01	18.7%
001040 636500 OFFICE EQUIPMENT R&M	2,300	2,300	231.98	170.63	.00	2,068.02	10.1%
001040 684000 DUES AND MEMBERSHIPS	300	300	150.00	.00	.00	150.00	50.0%
001040 684500 REGISTRATION FEE/TUI	1,500	1,500	200.00	.00	.00	1,300.00	13.3%
TOTAL PROFESSIONAL SERVICE	27,650	27,650	10,888.36	458.85	.00	16,761.64	39.4%
TOTAL MUNICIPAL CLERK	240,450	240,450	76,428.73	15,454.76	.00	164,021.27	31.8%
001042 ACCOUNTING DIV.							
40 PERSONAL SERVICES							
001042 400000 REGULAR WAGES	328,600	328,600	116,666.77	21,199.54	.00	211,933.23	35.5%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001042 460000 STATE RETIREMENT	59,300	59,300	20,883.36	3,794.74	.00	38,416.64	35.2%
001042 470000 F.I.C.A. TAXES	25,200	25,200	8,721.95	1,580.62	.00	16,478.05	34.6%
001042 480000 HOSPITALIZATION INS.	50,400	50,400	20,035.00	8,007.00	.00	30,365.00	39.8%
TOTAL PERSONAL SERVICES	463,500	463,500	166,307.08	34,581.90	.00	297,192.92	35.9%
50 SUPPLIES & EXPENSES							
001042 500500 PRINTED FORMS	1,000	1,000	562.00	.00	.00	438.00	56.2%
001042 501000 OTHER EXPENDABLE OFF	2,500	2,500	194.39	.00	300.00	2,005.61	19.8%
001042 502000 MINOR OFFICE EQUIP/F	1,000	1,000	310.92	.00	.00	689.08	31.1%
001042 510000 CLEANING/JANITORIAL	700	700	507.22	454.04	309.04	-116.26	116.6%
TOTAL SUPPLIES & EXPENSES	5,200	5,200	1,574.53	454.04	609.04	3,016.43	42.0%
60 PROFESSIONAL SERVICE							
001042 604900 OTHER PROFESSIONAL S	1,000	1,000	.00	.00	549.00	451.00	54.9%
001042 611000 TRAVEL EXPENSE	3,000	3,000	2,237.44	596.36	.00	762.56	74.6%
TOTAL PROFESSIONAL SERVICE	4,000	4,000	2,237.44	596.36	549.00	1,213.56	69.7%
TOTAL ACCOUNTING DIV.	472,700	472,700	170,119.05	35,632.30	1,158.04	301,422.91	36.2%
001045 PURCHASING DIV.							
40 PERSONAL SERVICES							
001045 400000 REGULAR WAGES	107,000	107,000	45,257.84	8,230.75	.00	61,742.16	42.3%
001045 460000 STATE RETIREMENT	19,300	19,300	8,101.19	1,473.31	.00	11,198.81	42.0%
001045 470000 F.I.C.A. TAXES	8,200	8,200	3,185.52	574.30	.00	5,014.48	38.8%
001045 480000 HOSPITALIZATION INS.	16,800	16,800	6,014.00	1,202.80	.00	10,786.00	35.8%
TOTAL PERSONAL SERVICES	151,300	151,300	62,558.55	11,481.16	.00	88,741.45	41.3%
50 SUPPLIES & EXPENSES							
001045 500300 PAPER	1,100	1,100	275.00	.00	.00	825.00	25.0%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001045 501000 OTHER EXPENDABLE OFF	1,650	1,650	108.75	.00	.00	1,541.25	6.6%
TOTAL SUPPLIES & EXPENSES	2,750	2,750	383.75	.00	.00	2,366.25	14.0%
60 PROFESSIONAL SERVICE							
001045 636500 OFFICE EQUIPMENT R&M	1,605	1,605	843.48	162.81	.00	761.52	52.6%
001045 684500 REGISTRATION FEE/TUI	0	0	70.00	.00	.00	-70.00	100.0%
TOTAL PROFESSIONAL SERVICE	1,605	1,605	913.48	162.81	.00	691.52	56.9%
TOTAL PURCHASING DIV.	155,655	155,655	63,855.78	11,643.97	.00	91,799.22	41.0%
001060 CITY ATTORNEY							
40 PERSONAL SERVICES							
001060 400000 REGULAR WAGES	70,000	70,000	29,615.41	5,384.62	.00	40,384.59	42.3%
001060 460000 STATE RETIREMENT	12,650	12,650	5,301.12	963.84	.00	7,348.88	41.9%
001060 470000 F.I.C.A. TAXES	5,360	5,360	2,265.57	411.91	.00	3,094.43	42.3%
001060 480000 HOSPITALIZATION INS.	8,400	8,400	3,032.00	3,006.40	.00	5,368.00	36.1%
TOTAL PERSONAL SERVICES	96,410	96,410	40,214.10	9,766.77	.00	56,195.90	41.7%
TOTAL CITY ATTORNEY	96,410	96,410	40,214.10	9,766.77	.00	56,195.90	41.7%
001080 HUMAN RESOURCES							
40 PERSONAL SERVICES							
001080 400000 REGULAR WAGES	228,600	228,600	77,673.77	14,967.33	.00	150,926.23	34.0%
001080 460000 STATE RETIREMENT	41,300	41,300	12,966.36	2,486.58	.00	28,333.64	31.4%
001080 470000 F.I.C.A. TAXES	17,500	17,500	5,641.34	1,084.86	.00	11,858.66	32.2%
001080 480000 HOSPITALIZATION INS.	33,600	33,600	12,053.00	4,810.60	.00	21,547.00	35.9%
TOTAL PERSONAL SERVICES	321,000	321,000	108,334.47	23,349.37	.00	212,665.53	33.7%
50 SUPPLIES & EXPENSES							

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001080 500300 PAPER	2,500	2,500	641.42	641.42	.00	1,858.58	25.7%
001080 500500 PRINTED FORMS	1,000	1,000	720.00	720.00	720.00	-440.00	144.0%
001080 501000 OTHER EXPENDABLE OFF	1,500	1,500	987.34	98.14	556.04	-43.38	102.9%
TOTAL SUPPLIES & EXPENSES	5,000	5,000	2,348.76	1,459.56	1,276.04	1,375.20	72.5%
60 PROFESSIONAL SERVICE							
001080 606000 TELEPHONE AND TELEGR	1,000	1,000	965.00	.00	.00	35.00	96.5%
001080 636500 OFFICE EQUIPMENT R&M	6,835	6,835	955.86	276.71	.00	5,879.14	14.0%
TOTAL PROFESSIONAL SERVICE	7,835	7,835	1,920.86	276.71	.00	5,914.14	24.5%
TOTAL HUMAN RESOURCES	333,835	333,835	112,604.09	25,085.64	1,276.04	219,954.87	34.1%
001081 LOSS CONTROL							
40 PERSONAL SERVICES							
001081 400000 REGULAR WAGES	50,000	50,000	21,153.88	3,846.16	.00	28,846.12	42.3%
001081 460000 STATE RETIREMENT	9,100	9,100	3,786.53	688.46	.00	5,313.47	41.6%
001081 470000 F.I.C.A. TAXES	3,850	3,850	1,607.25	292.02	.00	2,242.75	41.7%
001081 480000 HOSPITALIZATION INS.	8,400	8,400	3,007.00	601.40	.00	5,393.00	35.8%
TOTAL PERSONAL SERVICES	71,350	71,350	29,554.66	5,428.04	.00	41,795.34	41.4%
50 SUPPLIES & EXPENSES							
001081 525000 GAS AND OIL	2,000	2,000	150.77	43.81	.00	1,849.23	7.5%
001081 570000 MTR VEHICLE REP. PTS	1,000	1,000	.00	.00	71.70	928.30	7.2%
TOTAL SUPPLIES & EXPENSES	3,000	3,000	150.77	43.81	71.70	2,777.53	7.4%
TOTAL LOSS CONTROL	74,350	74,350	29,705.43	5,471.85	71.70	44,572.87	40.0%
001090 URBAN DEVELOPMT							
40 PERSONAL SERVICES							

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001090 400000 REGULAR WAGES	409,500	409,500	171,618.76	31,830.51	.00	237,881.24	41.9%
001090 460000 STATE RETIREMENT	73,100	73,100	30,588.72	5,566.62	.00	42,511.28	41.8%
001090 470000 F.I.C.A. TAXES	31,400	31,400	12,554.53	2,320.17	.00	18,845.47	40.0%
001090 480000 HOSPITALIZATION INS.	67,200	67,200	29,056.00	9,811.20	.00	38,144.00	43.2%
TOTAL PERSONAL SERVICES	581,200	581,200	243,818.01	49,528.50	.00	337,381.99	42.0%
50 SUPPLIES & EXPENSES							
001090 500300 PAPER	945	945	192.36	.00	40.00	712.64	24.6%
001090 501000 OTHER EXPENDABLE OFF	2,770	2,520	834.89	458.41	347.96	1,337.15	46.9%
001090 501100 N.I.P. SUPPLIES	11,080	11,080	4,210.22	.00	.00	6,869.78	38.0%
001090 502000 MINOR OFFICE EQUIP/F	1,335	1,330	663.05	.00	350.00	316.95	76.2%
001090 505000 SUBSCRIPTIONS,MAGS,M	360	360	60.00	5.00	50.00	250.00	30.6%
001090 508000 COMPUTER SUPPLIES	2,000	2,000	457.96	.00	549.99	992.05	50.4%
001090 511500 FOOD	130	130	21.40	.00	.00	108.60	16.5%
001090 525000 GAS AND OIL	1,500	1,500	167.18	54.09	200.00	1,132.82	24.5%
001090 535500 WEARING APPAREL	270	525	519.82	.00	.00	5.18	99.0%
001090 559000 OTHER OPERATING MATL	300	300	15.00	.00	.00	285.00	5.0%
TOTAL SUPPLIES & EXPENSES	20,690	20,690	7,141.88	517.50	1,537.95	12,010.17	42.0%
60 PROFESSIONAL SERVICE							
001090 602000 CONSULTANT SERV/SURV	4,000	4,000	2,056.74	.00	1,343.75	599.51	85.0%
001090 604900 OTHER PROFESSIONAL S	102,600	102,600	99,724.84	57.28	.00	2,875.16	97.2%
001090 606000 TELEPHONE AND TELEGR	3,200	3,200	298.90	59.84	.00	2,901.10	9.3%
001090 611000 TRAVEL EXPENSE	6,000	6,200	5,098.88	913.81	1,074.06	27.06	99.6%
001090 615000 ADVERTISING	0	500	305.88	63.00	.00	194.12	61.2%
001090 641000 OFFICE EQUIPMENT REN	5,100	5,100	1,381.64	.00	.00	3,718.36	27.1%
001090 650000 EXHIBITIONS & PROMOT	0	0	804.55	.00	.00	-804.55	100.0%
001090 684000 DUES AND MEMBERSHIPS	2,400	2,400	1,648.49	.00	.00	751.51	68.7%
001090 684500 REGISTRATION FEE/TUI	4,200	4,000	883.91	.00	1,603.85	1,512.24	62.2%
TOTAL PROFESSIONAL SERVICE	127,500	128,000	112,203.83	1,093.93	4,021.66	11,774.51	90.8%
TOTAL URBAN DEVELOPMT	729,390	729,890	363,163.72	51,139.93	5,559.61	361,166.67	50.5%

001091 INFO TECHNOLOGY

40 PERSONAL SERVICES

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001091 400000 REGULAR WAGES	222,500	222,500	81,621.75	14,797.13	.00	140,878.25	36.7%
001091 430000 OVERTIME	16,000	16,000	5,334.00	984.00	.00	10,666.00	33.3%
001091 460000 STATE RETIREMENT	43,000	43,000	15,565.06	2,824.83	.00	27,434.94	36.2%
001091 470000 F.I.C.A. TAXES	18,300	18,300	6,473.30	1,171.49	.00	11,826.70	35.4%
001091 480000 HOSPITALIZATION INS.	25,200	25,200	10,021.00	2,804.20	.00	15,179.00	39.8%
TOTAL PERSONAL SERVICES	325,000	325,000	119,015.11	22,581.65	.00	205,984.89	36.6%
50 SUPPLIES & EXPENSES							
001091 500300 PAPER	1,200	1,200	587.44	587.44	.00	612.56	49.0%
001091 501000 OTHER EXPENDABLE OFF	500	500	216.54	.00	30.92	252.54	49.5%
001091 508000 COMPUTER SUPPLIES	35,000	35,000	11,233.45	2,757.21	5,055.15	18,711.40	46.5%
001091 525000 GAS AND OIL	500	500	93.27	36.91	.00	406.73	18.7%
001091 570000 MTR VEHICLE REP. PTS	200	650	559.95	.00	.00	90.05	86.1%
TOTAL SUPPLIES & EXPENSES	37,400	37,850	12,690.65	3,381.56	5,086.07	20,073.28	47.0%
60 PROFESSIONAL SERVICE							
001091 603500 DATA PROCESSING	30,000	143,000	3,385.70	1,503.84	118,758.19	20,856.11	85.4%
001091 604900 OTHER PROFESSIONAL S	347,500	392,100	343,260.87	263,868.58	11,000.00	37,839.13	90.3%
001091 606000 TELEPHONE AND TELEGR	2,500	2,500	1,191.24	265.76	.00	1,308.76	47.6%
001091 606800 NETWORK	205,000	205,000	66,667.87	12,948.51	.00	138,332.13	32.5%
001091 611000 TRAVEL EXPENSE	0	2,400	596.36	596.36	.00	1,803.64	24.8%
001091 636500 OFFICE EQUIPMENT R&M	230,000	277,200	76,310.07	11,310.91	49,789.69	151,100.24	45.5%
TOTAL PROFESSIONAL SERVICE	815,000	1,022,200	491,412.11	290,493.96	179,547.88	351,240.01	65.6%
70 CAPITAL OUTLAY							
001091 732700 DATA PROCESSING EQUI	40,000	40,000	15,966.00	2,259.00	.00	24,034.00	39.9%
TOTAL CAPITAL OUTLAY	40,000	40,000	15,966.00	2,259.00	.00	24,034.00	39.9%
TOTAL INFO TECHNOLOGY	1,217,400	1,425,050	639,083.87	318,716.17	184,633.95	601,332.18	57.8%

001092 GEN.GOV'T.BLDG

50 SUPPLIES & EXPENSES

EXPENDITURE REPORT

FOR 2025 05

			ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001092 510000	CLEANING/JANITORIAL		2,500	2,000	470.91	.00	389.95	1,139.14	43.0%
001092 513000	CHEMICALS		8,000	8,000	3,750.00	.00	.00	4,250.00	46.9%
001092 546000	MINOR EQUIPMENT		2,000	2,500	2,295.51	.00	.00	204.49	91.8%
001092 560500	ELECTRICAL SUPPLIES		1,500	1,500	66.00	.00	.00	1,434.00	4.4%
001092 561000	PLUMBING SUPPLIES		1,000	1,688	1,628.73	.00	.00	59.17	96.5%
TOTAL SUPPLIES & EXPENSES			15,000	15,688	8,211.15	.00	389.95	7,086.80	54.8%
60 PROFESSIONAL SERVICE									
001092 602100	BUILDING SECURITY		1,500	1,500	540.00	.00	.00	960.00	36.0%
001092 604900	OTHER PROFESSIONAL S		8,000	8,000	1,799.90	389.00	.00	6,200.10	22.5%
001092 630000	GAS		15,000	15,000	6,296.63	2,498.73	.00	8,703.37	42.0%
001092 630500	ELECTRICITY		75,000	75,000	32,784.53	5,926.47	.00	42,215.47	43.7%
001092 635000	BUILDING R&M		300,000	310,220	157.50	.00	10,390.71	299,671.79	3.4%
001092 638000	FIXED EQUIPMENT R&M		5,000	5,000	907.18	.00	.00	4,092.82	18.1%
001092 639400	DISINFECT./EXTERMINA		1,200	1,200	226.00	65.00	.00	974.00	18.8%
001092 639900	OTHER REPAIRS AND MA		0	0	.00	.00	8,167.00	-8,167.00	100.0%
001092 644900	OTHER RENT		13,000	13,000	7,730.00	1,419.00	90.00	5,180.00	60.2%
TOTAL PROFESSIONAL SERVICE			418,700	428,920	50,441.74	10,298.20	18,647.71	359,830.55	16.1%
TOTAL GEN.GOV'T.BLDG			433,700	444,608	58,652.89	10,298.20	19,037.66	366,917.35	17.5%
001093 INTERMODAL FAC O&M									
50 SUPPLIES & EXPENSES									
001093 510000	CLEANING/JANITORIAL		3,200	3,200	246.00	.00	1,906.91	1,047.09	67.3%
001093 546000	MINOR EQUIPMENT		1,000	1,750	664.90	50.00	1,000.00	85.10	95.1%
TOTAL SUPPLIES & EXPENSES			4,200	4,950	910.90	50.00	2,906.91	1,132.19	77.1%
60 PROFESSIONAL SERVICE									
001093 630500	ELECTRICITY		37,000	37,000	16,498.57	3,890.18	.00	20,501.43	44.6%

EXPENDITURE REPORT

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001093 635000 BUILDING R&M	35,000	35,000	28,155.81	1,656.50	5,018.48	1,825.71	94.8%
001093 639400 DISINFECT./EXTERMINA	1,000	1,000	1,170.00	.00	.00	-170.00	117.0%
001093 639900 OTHER REPAIRS AND MA	8,000	8,000	1,335.00	1,160.00	.00	6,665.00	16.7%
001093 699900 SERVICES NOT SPECIFI	0	289,070	90,770.60	57,401.66	198,297.40	2.00	100.0%
TOTAL PROFESSIONAL SERVICE	81,000	370,070	137,929.98	64,108.34	203,315.88	28,824.14	92.2%
TOTAL INTERMODAL FAC O&M	85,200	375,020	138,840.88	64,158.34	206,222.79	29,956.33	92.0%
001094 METRPLTN PLANG.							
40 PERSONAL SERVICES							
001094 400000 REGULAR WAGES	140,000	140,000	36,423.83	7,140.78	.00	103,576.17	26.0%
001094 460000 STATE RETIREMENT	25,300	25,300	6,519.93	1,278.21	.00	18,780.07	25.8%
001094 470000 F.I.C.A. TAXES	10,750	10,750	2,772.83	543.54	.00	7,977.17	25.8%
001094 480000 HOSPITALIZATION INS.	25,200	25,200	11,014.00	6,202.80	.00	14,186.00	43.7%
TOTAL PERSONAL SERVICES	201,250	201,250	56,730.59	15,165.33	.00	144,519.41	28.2%
60 PROFESSIONAL SERVICE							
001094 636500 OFFICE EQUIPMENT R&M	5,000	5,000	542.40	.00	.00	4,457.60	10.8%
001094 684000 DUES AND MEMBERSHIPS	1,700	1,700	.00	.00	255.00	1,445.00	15.0%
TOTAL PROFESSIONAL SERVICE	6,700	6,700	542.40	.00	255.00	5,902.60	11.9%
TOTAL METRPLTN PLANG.	207,950	207,950	57,272.99	15,165.33	255.00	150,422.01	27.7%
001095 G/G INS.OTH SER							
60 PROFESSIONAL SERVICE							
001095 602500 LEGAL	500,000	500,000	173,235.14	29,461.85	.00	326,764.86	34.6%
001095 602700 MEDICAL	20,000	20,000	7,140.00	1,785.00	.00	12,860.00	35.7%
001095 602701 MEDICAL ANALYSIS-EMP	386,000	386,000	156,895.79	30,683.35	2,936.92	226,167.29	41.4%

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FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001095 604900 OTHER PROFESSIONAL S	350,000	328,188	196,183.75	34,550.20	43,191.76	88,811.99	72.9%
001095 606000 TELEPHONE AND TELEGR	130,000	130,000	82,406.10	13,573.81	.00	47,593.90	63.4%
001095 607000 POSTAGE	35,000	35,000	21,161.24	.00	.00	13,838.76	60.5%
001095 615500 UNALLOCATED ADVERTIS	40,000	40,000	26,700.00	.00	.00	13,300.00	66.8%
001095 625500 PUBLIC LIAB/PROPERTY	520,000	520,000	488,372.52	.00	.00	31,627.48	93.9%
001095 627000 SURETY AND FORGERY B	15,000	15,000	9,819.50	250.00	.00	5,180.50	65.5%
001095 645000 RENT/LEASE 16TH SECT	0	9,613	9,612.50	.00	.00	.00	100.0%
001095 683000 PROP.TAX COLL. FEES	95,000	95,000	38,209.09	7,879.87	.00	56,790.91	40.2%
001095 683100 PROP.TAX COLL. FEES.	130,000	130,000	102,571.54	67,855.87	.00	27,428.46	78.9%
001095 683200 BANK SERV/TRF FEE	5,000	5,000	2,608.56	451.95	.00	2,391.44	52.2%
001095 699900 SERVICES NOT SPECIFI	22,000	34,200	34,200.00	34,200.00	.00	.00	100.0%
TOTAL PROFESSIONAL SERVICE	2,248,000	2,248,000	1,349,115.73	220,691.90	46,128.68	852,755.59	62.1%
TOTAL G/G INS.OTH SER	2,248,000	2,248,000	1,349,115.73	220,691.90	46,128.68	852,755.59	62.1%
001096 FED PROG ADMIN							
40 PERSONAL SERVICES							
001096 400000 REGULAR WAGES	74,840	74,840	25,546.22	4,630.89	.00	49,293.78	34.1%
001096 460000 STATE RETIREMENT	13,500	13,500	4,572.77	828.93	.00	8,927.23	33.9%
001096 470000 F.I.C.A. TAXES	5,750	5,750	1,925.11	348.60	.00	3,824.89	33.5%
001096 480000 HOSPITALIZATION INS.	16,800	16,800	5,893.75	1,958.26	.00	10,906.25	35.1%
TOTAL PERSONAL SERVICES	110,890	110,890	37,937.85	7,766.68	.00	72,952.15	34.2%
50 SUPPLIES & EXPENSES							
001096 501001 HEALTHY HOMES SUPPLI	2,000	2,000	.00	.00	500.00	1,500.00	25.0%
001096 502000 MINOR OFFICE EQUIP/F	1,000	1,000	253.52	.00	.00	746.48	25.4%
TOTAL SUPPLIES & EXPENSES	3,000	3,000	253.52	.00	500.00	2,246.48	25.1%
60 PROFESSIONAL SERVICE							
001096 602007 HEALTHY HOMES ENV AS	26,250	26,250	14,690.00	14,690.00	.00	11,560.00	56.0%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001096 6032LT CONTRC SERV LEAD TES	43,800	43,800	4,671.52	2,271.52	989.02	38,139.46	12.9%
001096 611000 TRAVEL EXPENSE	2,500	2,500	26.44	.00	.00	2,473.56	1.1%
001096 684500 REGISTRATION FEE/TUI	2,600	2,600	575.00	.00	.00	2,025.00	22.1%
TOTAL PROFESSIONAL SERVICE	75,150	75,150	19,962.96	16,961.52	989.02	54,198.02	27.9%
TOTAL FED PROG ADMIN	189,040	189,040	58,154.33	24,728.20	1,489.02	129,396.65	31.6%
001100 POLICE/PUB.SFTY							
40 PERSONAL SERVICES							
001100 400000 REGULAR WAGES	8,641,500	8,641,500	3,486,662.46	659,672.99	.00	5,154,837.54	40.3%
001100 430000 OVERTIME	740,000	740,000	502,453.80	113,620.36	.00	237,546.20	67.9%
001100 460000 STATE RETIREMENT	1,615,000	1,615,000	706,766.62	136,775.84	.00	908,233.38	43.8%
001100 470000 F.I.C.A. TAXES	717,700	717,700	298,122.36	57,756.32	.00	419,577.64	41.5%
001100 480000 HOSPITALIZATION INS.	1,430,400	1,430,400	552,873.07	228,558.71	.00	877,526.93	38.7%
TOTAL PERSONAL SERVICES	13,144,600	13,144,600	5,546,878.31	1,196,384.22	.00	7,597,721.69	42.2%
50 SUPPLIES & EXPENSES							
001100 500300 PAPER	3,700	3,700	787.32	787.32	.00	2,912.68	21.3%
001100 501000 OTHER EXPENDABLE OFF	11,820	11,820	5,748.43	355.45	1,071.46	5,000.11	57.7%
001100 502000 MINOR OFFICE EQUIP/F	2,700	2,700	3,245.00	.00	.00	-545.00	120.2%
001100 508000 COMPUTER SUPPLIES	11,800	11,800	569.86	.00	8,697.00	2,533.14	78.5%
001100 510000 CLEANING/JANITORIAL	8,500	8,500	7,263.53	4,733.73	.00	1,236.47	85.5%
001100 525000 GAS AND OIL	325,000	325,000	81,730.27	23,435.40	.00	243,269.73	25.1%
001100 525700 DIESEL FUEL	2,000	2,000	219.70	.00	.00	1,780.30	11.0%
001100 535000 UNIFORMS, BADGES, ET	42,000	42,000	22,192.74	1,076.28	10,684.19	9,123.07	78.3%
001100 535500 WEARING APPAREL	49,000	49,000	9,246.34	1,359.35	5,044.32	34,709.34	29.2%
001100 546000 MINOR EQUIPMENT	50,000	50,000	12,581.20	898.86	9,652.38	27,766.42	44.5%
001100 559000 OTHER OPERATING MATL	28,650	28,650	14,892.93	198.00	2,576.47	11,180.60	61.0%
001100 559400 OTHER OPER-VICTIM AD	1,200	1,200	283.49	283.49	.00	916.51	23.6%
001100 570000 MTR VEHICLE REP. PTS	170,000	170,000	96,529.20	21,173.50	20,653.55	52,817.25	68.9%
001100 599000 OTHER REPAIR/MAINT.	3,000	3,000	129.00	.00	.00	2,871.00	4.3%
TOTAL SUPPLIES & EXPENSES	709,370	709,370	255,419.01	54,301.38	58,379.37	395,571.62	44.2%
60 PROFESSIONAL SERVICE							
001100 602700 MEDICAL	10,000	10,000	5,556.00	.00	.00	4,444.00	55.6%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001100 603000 VETERINARIAN	5,000	5,000	4,877.00	.00	.00	123.00	97.5%
001100 604900 OTHER PROFESSIONAL S	110,000	110,000	58,626.05	5,502.34	24,127.54	27,246.41	75.2%
001100 604921 NOLA EXPENSE	68,000	68,000	14,293.00	8,900.00	8,562.20	45,144.80	33.6%
001100 606000 TELEPHONE AND TELEGR	124,500	124,500	51,280.00	10,636.98	.00	73,220.00	41.2%
001100 611000 TRAVEL EXPENSE	30,000	30,000	10,242.83	1,043.00	2,867.28	16,889.89	43.7%
001100 612000 FREIGHT	3,000	3,000	674.81	21.00	373.14	1,952.05	34.9%
001100 620000 PRINTING	450	450	51.50	.00	.00	398.50	11.4%
001100 630000 GAS	14,500	14,500	20,055.47	9,366.33	.00	-5,555.47	138.3%
001100 630500 ELECTRICITY	194,000	194,000	78,136.37	13,586.82	.00	115,863.63	40.3%
001100 635000 BUILDING R&M	100,000	100,000	27,647.90	1,108.63	7,029.28	65,322.82	34.7%
001100 635500 ELECTRICAL R&M	4,000	4,000	1,110.00	.00	.00	2,890.00	27.8%
001100 636500 OFFICE EQUIPMENT R&M	30,000	30,000	9,395.35	938.63	135.00	20,469.65	31.8%
001100 638400 MOTOR VEHICLE EQ. R&	146,000	146,000	69,086.54	1,557.77	32,321.88	44,591.58	69.5%
001100 639400 DISINFECT./EXTERMINA	2,500	2,500	426.00	.00	.00	2,074.00	17.0%
001100 639800 TOW IN CHARGES	8,000	8,000	3,025.00	140.00	.00	4,975.00	37.8%
001100 641000 OFFICE EQUIPMENT REN	11,500	11,500	3,827.28	.00	.00	7,672.72	33.3%
001100 641700 MOTORCYCLE RENT	260,000	260,000	88,558.89	10,923.36	.00	171,441.11	34.1%
001100 684000 DUES AND MEMBERSHIPS	2,000	2,000	300.00	.00	175.00	1,525.00	23.8%
001100 684500 REGISTRATION FEE/TUI	15,000	15,000	6,200.65	.00	2,568.00	6,231.35	58.5%
001100 684700 CONTINUING EDUCATION	0	4,000	1,191.00	.00	.00	2,809.00	29.8%
001100 699900 SERVICES NOT SPECIFI	18,500	14,500	4,790.00	4,670.00	.00	9,710.00	33.0%
TOTAL PROFESSIONAL SERVICE	1,156,950	1,156,950	459,351.64	68,394.86	78,159.32	619,439.04	46.5%
70 CAPITAL OUTLAY							
001100 739900 OTHER EQUIPMENT	0	564,260	12,521.40	-80,178.00	496,735.88	55,002.72	90.3%
001100 740000 AUTOMOBILES	0	167,230	80,178.00	80,178.00	52,226.00	34,826.00	79.2%
TOTAL CAPITAL OUTLAY	0	731,490	92,699.40	.00	548,961.88	89,828.72	87.7%
TOTAL POLICE/PUB.SFTY	15,010,920	15,742,410	6,354,348.36	1,319,080.46	685,500.57	8,702,561.07	44.7%
001131 JOINT P&F TRNG.							
40 PERSONAL SERVICES							
001131 400000 REGULAR WAGES	35,400	35,400	14,917.50	2,677.50	.00	20,482.50	42.1%
001131 430000 OVERTIME	1,000	1,000	473.89	174.25	.00	526.11	47.4%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001131 460000 STATE RETIREMENT	6,650	6,650	2,755.05	510.46	.00	3,894.95	41.4%
001131 470000 F.I.C.A. TAXES	2,850	2,850	1,177.43	218.15	.00	1,672.57	41.3%
001131 480000 HOSPITALIZATION INS.	8,400	8,400	3,007.00	601.40	.00	5,393.00	35.8%
TOTAL PERSONAL SERVICES	54,300	54,300	22,330.87	4,181.76	.00	31,969.13	41.1%
50 SUPPLIES & EXPENSES							
001131 500300 PAPER	875	875	38.16	.00	42.81	794.03	9.3%
001131 501000 OTHER EXPENDABLE OFF	5,000	5,000	1,050.26	201.81	935.25	3,014.49	39.7%
001131 507000 BOOKS	1,000	1,000	325.00	.00	.00	675.00	32.5%
001131 507100 BOOKS-FIRE	2,000	2,000	1,000.70	.00	.00	999.30	50.0%
001131 508000 COMPUTER SUPPLIES	7,500	7,500	1,257.25	.00	.00	6,242.75	16.8%
001131 510000 CLEANING/JANITORIAL	2,800	2,800	755.37	524.81	805.62	1,239.01	55.7%
001131 511500 FOOD	1,200	1,200	155.25	.00	144.75	900.00	25.0%
001131 512000 MEDICAL SUPPLIES	500	500	.00	.00	62.50	437.50	12.5%
001131 535500 WEARING APPAREL	3,000	3,000	393.78	.00	.00	2,606.22	13.1%
001131 535600 WEARING APPAREL-FIRE	3,000	3,000	1,196.00	.00	826.91	977.09	67.4%
001131 5460NS MINOR EQUIP-NORFOLK	0	9,983	.00	.00	9,300.00	683.00	93.2%
001131 546600 HAZ.MAT SUPPLIES	8,000	8,000	.00	.00	2,122.00	5,878.00	26.5%
001131 559000 OTHER OPERATING MATL	10,000	16,079	15,103.80	4,120.00	975.23	.43	100.0%
001131 559100 OTHER OPER.MATLS-FUL	5,000	3,186	268.00	.00	.00	2,918.00	8.4%
001131 560000 BUILDING MATERIALS &	6,000	6,000	140.26	.00	.00	5,859.74	2.3%
001131 561000 PLUMBING SUPPLIES	2,000	2,000	1,355.00	.00	.00	645.00	67.8%
001131 570000 MTR VEHICLE REP. PTS	1,200	1,200	.00	.00	285.53	914.47	23.8%
001131 599000 OTHER REPAIR/MAINT.	2,500	2,500	780.44	325.84	64.95	1,654.61	33.8%
TOTAL SUPPLIES & EXPENSES	61,575	75,823	23,819.27	5,172.46	15,565.55	36,438.64	51.9%
60 PROFESSIONAL SERVICE							
001131 6110FR MINOR EQUIPMENT-FIRE	7,500	7,500	5,236.00	2,176.00	.00	2,264.00	69.8%
001131 612000 FREIGHT	700	700	129.64	.00	100.00	470.36	32.8%
001131 615000 ADVERTISING	2,000	2,000	1,832.20	.00	.00	167.80	91.6%
001131 630000 GAS	3,700	3,700	2,495.62	1,332.80	.00	1,204.38	67.4%
001131 630500 ELECTRICITY	16,000	16,000	6,608.56	1,120.10	.00	9,391.44	41.3%
001131 635000 BUILDING R&M	4,000	9,000	42.95	.00	8,000.00	957.05	89.4%
001131 638400 MOTOR VEHICLE EQ. R&	500	500	297.00	.00	153.84	49.16	90.2%
001131 639400 DISINFECT./EXTERMINA	1,000	1,000	150.00	.00	.00	850.00	15.0%
001131 644900 OTHER RENT	2,000	1,500	996.40	.00	.00	503.60	66.4%

EXPENDITURE REPORT

FOR 2025 05

		ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001131 684000	DUES AND MEMBERSHIPS	650	650	.00	.00	270.00	380.00	41.5%
001131 6845FR	REGISTRATION-FIRE	15,000	14,000	5,770.74	136.99	180.00	8,049.26	42.5%
	TOTAL PROFESSIONAL SERVICE	53,050	56,550	23,559.11	4,765.89	8,703.84	24,287.05	57.1%
	TOTAL JOINT P&F TRNG.	168,925	186,673	69,709.25	14,120.11	24,269.39	92,694.82	50.3%
001160 FIRE DIVISION								
40 PERSONAL SERVICES								
001160 400000	REGULAR WAGES	6,940,400	6,940,400	2,684,138.26	501,892.52	.00	4,256,261.74	38.7%
001160 430000	OVERTIME	590,000	590,000	314,400.66	60,238.05	.00	275,599.34	53.3%
001160 460000	STATE RETIREMENT	1,470,000	1,470,000	536,738.44	100,621.39	.00	933,261.56	36.5%
001160 470000	F.I.C.A. TAXES	576,100	576,100	219,614.53	41,002.94	.00	356,485.47	38.1%
001160 480000	HOSPITALIZATION INS.	1,176,000	1,176,000	463,896.60	155,979.80	.00	712,103.40	39.4%
	TOTAL PERSONAL SERVICES	10,752,500	10,752,500	4,218,788.49	859,734.70	.00	6,533,711.51	39.2%
50 SUPPLIES & EXPENSES								
001160 501000	OTHER EXPENDABLE OFF	3,500	3,500	366.98	147.33	583.52	2,549.50	27.2%
001160 510000	CLEANING/JANITORIAL	13,000	13,000	6,037.61	1,953.33	957.44	6,004.95	53.8%
001160 511000	HOUSEHOLD SUPPLIES	2,500	2,500	57.98	57.98	912.96	1,529.06	38.8%
001160 512000	MEDICAL SUPPLIES	5,000	5,000	.00	.00	2,408.40	2,591.60	48.2%
001160 525000	GAS AND OIL	30,000	30,000	4,369.91	1,515.36	.00	25,630.09	14.6%
001160 525700	DIESEL FUEL	60,000	60,000	13,218.24	3,762.29	.00	46,781.76	22.0%
001160 535000	UNIFORMS, BADGES, ET	43,200	43,200	13,015.99	8,194.26	9,764.87	20,419.14	52.7%
001160 535500	WEARING APPAREL	20,000	20,000	19,993.06	7,854.64	.00	6.94	100.0%
001160 546000	MINOR EQUIPMENT	8,000	8,000	3,686.65	.00	1,219.95	3,093.40	61.3%
001160 546200	MINOR FIRE FIGHTING	10,000	10,000	2,564.38	.00	6,513.12	922.50	90.8%
001160 547000	FIRE HOSE	5,000	5,000	1,728.00	.00	.00	3,272.00	34.6%
001160 553500	SFTY/FIRE P/MATL CON	5,110	5,110	5,030.79	3,830.79	.00	79.21	98.4%
001160 559000	OTHER OPERATING MATL	1,690	1,690	933.01	371.89	.00	756.99	55.2%
001160 560000	BUILDING MATERIALS &	6,000	6,000	6,000.00	6,000.00	.00	.00	100.0%
001160 560500	ELECTRICAL SUPPLIES	2,500	2,500	17.60	17.60	428.40	2,054.00	17.8%
001160 561000	PLUMBING SUPPLIES	500	500	337.25	246.95	78.70	84.05	83.2%
001160 565000	PAINT AND PAINTING S	2,600	2,600	.00	.00	84.40	2,515.60	3.2%
001160 570000	MTR VEHICLE REP. PTS	60,000	60,000	24,464.44	4,351.69	5,529.11	30,006.45	50.0%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001160 575000 COMMUNICATION REPAIR	1,500	1,500	237.25	237.25	1,000.00	262.75	82.5%
001160 575600 SCBA REPAIR PTS/SPL	5,000	5,000	975.00	.00	.00	4,025.00	19.5%
001160 599000 OTHER REPAIR/MAINT.	4,500	4,500	791.73	364.80	.00	3,708.27	17.6%
TOTAL SUPPLIES & EXPENSES	289,600	289,600	103,825.87	38,906.16	29,480.87	156,293.26	46.0%
60 PROFESSIONAL SERVICE							
001160 604900 OTHER PROFESSIONAL S	15,400	28,969	25,720.00	.00	.00	3,249.00	88.8%
001160 606000 TELEPHONE AND TELEGR	18,000	18,000	6,473.80	1,615.58	.00	11,526.20	36.0%
001160 611000 TRAVEL EXPENSE	8,000	8,000	977.25	977.25	977.91	6,044.84	24.4%
001160 612000 FREIGHT	4,300	4,300	2,483.82	416.03	211.76	1,604.42	62.7%
001160 630000 GAS	28,000	28,000	10,288.00	6,724.60	.00	17,712.00	36.7%
001160 630500 ELECTRICITY	75,000	75,000	33,792.97	6,265.35	.00	41,207.03	45.1%
001160 631500 WATER	1,000	1,000	367.00	102.54	.00	633.00	36.7%
001160 635000 BUILDING R&M	35,000	37,000	32,003.04	7,169.91	4,296.61	700.35	98.1%
001160 637000 HOUSEHOLD EQUIPMENT	3,000	3,000	1,044.96	672.60	314.00	1,641.04	45.3%
001160 638000 FIXED EQUIPMENT R&M	6,025	6,025	4,232.83	1,125.91	1,261.82	530.35	91.2%
001160 638400 MOTOR VEHICLE EQ. R&	50,000	50,000	34,305.06	5,803.20	4,824.82	10,870.12	78.3%
001160 638900 SCBA EQUIP. R&M	10,550	10,550	2,925.00	.00	99.36	7,525.64	28.7%
001160 639000 COMMUNICATION EQ. R&	10,000	10,000	1,616.50	848.00	.00	8,383.50	16.2%
001160 639400 DISINFECT./EXTERMINA	6,000	751	751.00	146.00	.00	.00	100.0%
001160 639800 TOW IN CHARGES	2,000	2,000	800.00	400.00	.00	1,200.00	40.0%
001160 639900 OTHER REPAIRS AND MA	1,000	1,000	839.90	699.90	1.95	158.15	84.2%
001160 641000 OFFICE EQUIPMENT REN	5,000	5,000	1,202.29	263.71	.00	3,797.71	24.0%
001160 642500 CYLINDER RENT	3,000	3,000	766.10	56.16	.00	2,233.90	25.5%
001160 643500 MOP-MAT-RAG RENT	1,000	1,000	371.23	57.52	.00	628.77	37.1%
001160 644900 OTHER RENT	0	5,723	5,723.13	.00	.00	.00	100.0%
001160 684000 DUES AND MEMBERSHIPS	1,330	1,330	90.00	.00	128.00	1,112.00	16.4%
001160 684500 REGISTRATION FEE/TUI	2,590	2,590	2,500.00	.00	.00	90.00	96.5%
001160 684700 CONTINUING EDUCATION	15,000	15,000	1,691.00	.00	3,695.00	9,614.00	35.9%
001160 699900 SERVICES NOT SPECIFI	500	500	453.00	250.00	.00	47.00	90.6%
TOTAL PROFESSIONAL SERVICE	301,695	317,738	171,417.88	33,594.26	15,811.23	130,509.02	58.9%
TOTAL FIRE DIVISION	11,343,795	11,359,838	4,494,032.24	932,235.12	45,292.10	6,820,513.79	40.0%

001180 LAND DEVEL.ADM.**40 PERSONAL SERVICES**

001180 400000 REGULAR WAGES	542,000	542,000	199,874.02	37,623.55	.00	342,125.98	36.9%
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FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001180 430000 OVERTIME	10,000	10,000	2,642.55	823.00	.00	7,357.45	26.4%
001180 460000 STATE RETIREMENT	94,000	94,000	36,250.36	6,881.91	.00	57,749.64	38.6%
001180 470000 F.I.C.A. TAXES	42,300	42,300	14,814.72	2,808.36	.00	27,485.28	35.0%
001180 480000 HOSPITALIZATION INS.	109,200	109,200	42,587.50	12,216.80	.00	66,612.50	39.0%
TOTAL PERSONAL SERVICES	797,500	797,500	296,169.15	60,353.62	.00	501,330.85	37.1%
50 SUPPLIES & EXPENSES							
001180 500300 PAPER	1,575	1,575	768.04	478.65	.00	806.96	48.8%
001180 500500 PRINTED FORMS	270	270	.00	.00	34.81	235.19	12.9%
001180 501000 OTHER EXPENDABLE OFF	2,300	2,300	2,091.22	1,083.43	.00	208.78	90.9%
001180 502000 MINOR OFFICE EQUIP/F	2,000	324	205.99	205.99	.00	118.01	63.6%
001180 505000 SUBSCRIPTIONS,MAGS,M	900	2,050	2,255.71	210.38	.00	-205.71	110.0%
001180 507000 BOOKS	900	1,426	1,425.64	1,280.00	.00	.36	100.0%
001180 508000 COMPUTER SUPPLIES	450	450	79.98	79.98	.00	370.02	17.8%
001180 511100 SUPPLIES - COVID 19	200	200	97.39	97.39	.00	102.61	48.7%
001180 525000 GAS AND OIL	11,500	11,500	2,842.43	782.30	.00	8,657.57	24.7%
001180 535500 WEARING APPAREL	3,000	3,000	1,603.16	254.99	94.29	1,302.55	56.6%
001180 546000 MINOR EQUIPMENT	660	640	443.79	13.43	.00	196.21	69.3%
001180 565000 PAINT AND PAINTING S	0	20	14.46	.00	.00	5.54	72.3%
001180 570000 MTR VEHICLE REP. PTS	8,000	8,000	6,048.74	429.94	3.00	1,948.26	75.6%
TOTAL SUPPLIES & EXPENSES	31,755	31,755	17,876.55	4,916.48	132.10	13,746.35	56.7%
60 PROFESSIONAL SERVICE							
001180 601300 DEMOLITION	100,000	92,660	83,464.66	7,569.84	.00	9,195.34	90.1%
001180 601600 TITLE OPINIONS	9,600	7,836	4,750.00	500.00	.00	3,086.00	60.6%
001180 601800 LOT CLEARING	70,000	46,080	41,406.28	.00	.00	4,673.72	89.9%
001180 602300 ABSTRACTING & RECORD	3,000	3,025	3,025.00	599.00	.00	.00	100.0%
001180 604900 OTHER PROFESSIONAL S	9,000	43,350	43,122.03	.00	.00	227.97	99.5%
001180 606000 TELEPHONE AND TELEGR	10,000	10,000	6,577.99	1,671.48	.00	3,422.01	65.8%
001180 611000 TRAVEL EXPENSE	5,000	5,885	3,237.27	1,511.91	1,047.00	1,600.73	72.8%
001180 612000 FREIGHT	0	71	70.40	70.40	.00	.60	99.2%
001180 620000 PRINTING	3,000	3,000	1,057.51	164.99	.00	1,942.49	35.3%
001180 638400 MOTOR VEHICLE EQ. R&	5,000	5,000	847.63	46.95	.00	4,152.37	17.0%
001180 639800 TOW IN CHARGES	1,000	1,000	125.00	125.00	.00	875.00	12.5%
001180 684000 DUES AND MEMBERSHIPS	2,500	2,500	500.00	.00	.00	2,000.00	20.0%
001180 684500 REGISTRATION FEE/TUI	3,000	3,764	2,564.00	69.00	1,199.00	1.00	100.0%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL PROFESSIONAL SERVICE	221,100	224,171	190,747.77	12,328.57	2,246.00	31,177.23	86.1%
70 CAPITAL OUTLAY							
001180 740000 AUTOMOBILES	0	98,000	98,000.00	.00	.00	.00	100.0%
TOTAL CAPITAL OUTLAY	0	98,000	98,000.00	.00	.00	.00	100.0%
TOTAL LAND DEVEL.ADM.	1,050,355	1,151,426	602,793.47	77,598.67	2,378.10	546,254.43	52.6%
001190 P/S CONTRAC.SER							
40 PERSONAL SERVICES							
001190 430000 OVERTIME	175,000	175,000	205,303.18	27,769.42	.00	-30,303.18	117.3%
001190 460000 STATE RETIREMENT	31,500	31,500	36,749.37	4,970.75	.00	-5,249.37	116.7%
001190 470000 F.I.C.A. TAXES	13,390	13,390	15,332.67	2,058.43	.00	-1,942.67	114.5%
001190 480000 HOSPITALIZATION INS.	14,000	14,000	14,204.53	2,144.75	.00	-204.53	101.5%
TOTAL PERSONAL SERVICES	233,890	233,890	271,589.75	36,943.35	.00	-37,699.75	116.1%
60 PROFESSIONAL SERVICE							
001190 602700 MEDICAL	40,000	40,000	30,215.50	1,051.74	.00	9,784.50	75.5%
001190 686500 EMERGENCY MGMT.CONTR	155,000	155,000	77,500.00	.00	.00	77,500.00	50.0%
TOTAL PROFESSIONAL SERVICE	195,000	195,000	107,715.50	1,051.74	.00	87,284.50	55.2%
TOTAL P/S CONTRAC.SER	428,890	428,890	379,305.25	37,995.09	.00	49,584.75	88.4%
001191 TRAFFIC MAINT.							
40 PERSONAL SERVICES							
001191 400000 REGULAR WAGES	232,500	232,500	68,336.11	13,667.95	.00	164,163.89	29.4%

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FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001191 430000 OVERTIME	8,500	8,500	12,574.16	2,486.36	.00	-4,074.16	147.9%
001191 460000 STATE RETIREMENT	40,500	40,500	14,482.97	2,891.62	.00	26,017.03	35.8%
001191 470000 F.I.C.A. TAXES	18,500	18,500	5,879.93	1,160.74	.00	12,620.07	31.8%
001191 480000 HOSPITALIZATION INS.	50,400	50,400	20,230.80	10,007.00	.00	30,169.20	40.1%
TOTAL PERSONAL SERVICES	350,400	350,400	121,503.97	30,213.67	.00	228,896.03	34.7%
50 SUPPLIES & EXPENSES							
001191 501000 OTHER EXPENDABLE OFF	1,200	1,200	267.37	.00	.00	932.63	22.3%
001191 511000 HOUSEHOLD SUPPLIES	1,000	1,000	115.96	.00	120.00	764.04	23.6%
001191 525000 GAS AND OIL	15,000	15,000	3,300.75	1,076.07	.00	11,699.25	22.0%
001191 525700 DIESEL FUEL	1,500	1,500	211.31	.00	.00	1,288.69	14.1%
001191 545000 HAND TOOLS	1,500	1,500	1,031.32	.00	206.00	262.68	82.5%
001191 554000 TRAFFIC CONTROL EQ.	55,000	55,000	16,641.93	.00	16,530.43	21,827.64	60.3%
001191 554500 TRAFFIC SIGNS	27,000	27,000	6,184.70	602.00	5,998.25	14,817.05	45.1%
001191 555000 STREET MARKING SUPPL	6,000	6,000	196.00	.00	.00	5,804.00	3.3%
001191 559000 OTHER OPERATING MATL	3,900	3,900	3,631.53	.00	202.30	66.17	98.3%
001191 570000 MTR VEHICLE REP. PTS	21,000	21,000	4,371.82	386.20	.00	16,628.18	20.8%
001191 575000 COMMUNICATION REPAIR	1,700	1,700	79.99	.00	.00	1,620.01	4.7%
TOTAL SUPPLIES & EXPENSES	134,800	134,800	36,032.68	2,064.27	23,056.98	75,710.34	43.8%
60 PROFESSIONAL SERVICE							
001191 606000 TELEPHONE AND TELEGR	1,500	1,500	851.70	170.52	.00	648.30	56.8%
001191 630000 GAS	2,000	2,000	1,005.60	605.10	.00	994.40	50.3%
001191 630500 ELECTRICITY	16,500	16,500	5,967.70	1,027.93	.00	10,532.30	36.2%
001191 638400 MOTOR VEHICLE EQ. R&	7,500	7,500	4,799.50	.00	971.08	1,729.42	76.9%
001191 639400 DISINFECT./EXTERMINA	600	600	90.00	.00	.00	510.00	15.0%
001191 643000 UNIFORM RENT	1,500	1,500	575.85	109.78	.00	924.15	38.4%
001191 643500 MOP-MAT-RAG RENT	600	600	196.20	34.24	.00	403.80	32.7%
001191 687000 CUSTODIAL SERVICE	5,000	5,000	1,907.80	325.00	3,074.00	18.20	99.6%
TOTAL PROFESSIONAL SERVICE	35,200	35,200	15,394.35	2,272.57	4,045.08	15,760.57	55.2%
TOTAL TRAFFIC MAINT.	520,400	520,400	172,931.00	34,550.51	27,102.06	320,366.94	38.4%

001201 STREET DIV.

40 PERSONAL SERVICES

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001201 400000 REGULAR WAGES	687,100	687,100	238,300.88	49,974.38	.00	448,799.12	34.7%
001201 430000 OVERTIME	12,500	12,500	6,205.14	1,077.76	.00	6,294.86	49.6%
001201 460000 STATE RETIREMENT	126,200	126,200	43,821.14	9,148.28	.00	82,378.86	34.7%
001201 470000 F.I.C.A. TAXES	53,600	53,600	18,389.46	3,840.08	.00	35,210.54	34.3%
001201 480000 HOSPITALIZATION INS.	151,200	151,200	58,790.30	27,216.80	.00	92,409.70	38.9%
TOTAL PERSONAL SERVICES	1,030,600	1,030,600	365,506.92	91,257.30	.00	665,093.08	35.5%
50 SUPPLIES & EXPENSES							
001201 501000 OTHER EXPENDABLE OFF	500	500	238.41	.00	.00	261.59	47.7%
001201 502000 MINOR OFFICE EQUIP/F	2,500	2,500	399.00	.00	.00	2,101.00	16.0%
001201 525000 GAS AND OIL	21,000	21,000	6,269.86	1,432.85	.00	14,730.14	29.9%
001201 525700 DIESEL FUEL	35,000	35,000	4,783.41	1,594.36	.00	30,216.59	13.7%
001201 535500 WEARING APPAREL	3,800	3,800	504.00	504.00	611.98	2,684.02	29.4%
001201 540000 ASPHALT & ASPHALT PR	45,000	45,000	19,512.87	4,737.93	6,234.01	19,253.12	57.2%
001201 540500 CONCRETE, CEMENT, ET	20,000	20,000	7,801.53	4,081.53	5,256.47	6,942.00	65.3%
001201 541000 BRICK, STONE, MORTAR, E	20,000	20,000	4,639.84	.00	.00	15,360.16	23.2%
001201 541500 SAND, CLAY, GRVL, FILL	7,000	7,000	.00	.00	1,440.00	5,560.00	20.6%
001201 542000 DRAINAGE PIPE & CULV	8,000	8,000	1,295.00	.00	.00	6,705.00	16.2%
001201 546000 MINOR EQUIPMENT	5,000	5,000	147.98	.00	.00	4,852.02	3.0%
001201 559000 OTHER OPERATING MATL	20,000	20,000	17,326.19	4,282.07	443.95	2,229.86	88.9%
001201 560000 BUILDING MATERIALS &	3,000	3,000	213.13	.00	.00	2,786.87	7.1%
001201 561000 PLUMBING SUPPLIES	400	400	26.90	.00	.00	373.10	6.7%
001201 570000 MTR VEHICLE REP. PTS	80,000	80,000	10,153.14	1,298.55	1,567.14	68,279.72	14.7%
001201 575000 COMMUNICATION REPAIR	1,000	1,000	411.48	.00	.00	588.52	41.1%
001201 575500 AGRICLTRL REPAIR PTS	15,000	15,000	6,186.92	1,615.56	.00	8,813.08	41.2%
TOTAL SUPPLIES & EXPENSES	287,200	287,200	79,909.66	19,546.85	15,553.55	191,736.79	33.2%
60 PROFESSIONAL SERVICE							
001201 604900 OTHER PROFESSIONAL S	361,000	361,000	143,739.00	26,494.00	75,499.00	141,762.00	60.7%
001201 612000 FREIGHT	3,000	3,000	487.15	62.15	.00	2,512.85	16.2%
001201 636099 LONG RANGE PAVING PL	1,150,000	1,150,000	881,386.61	71,475.10	251,114.15	17,499.24	98.5%
001201 638400 MOTOR VEHICLE EQ. R&	30,000	28,000	11,214.43	134.85	10,922.77	5,862.80	79.1%
001201 638700 AGRICULTURAL EQ. R&M	20,000	22,000	19,708.54	5,219.37	1,531.88	759.58	96.5%
001201 639800 TOW IN CHARGES	1,500	1,500	850.00	.00	.00	650.00	56.7%
001201 639900 OTHER REPAIRS AND MA	8,000	8,000	880.00	.00	.00	7,120.00	11.0%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001201 643000 UNIFORM RENT	15,000	15,000	7,167.83	1,323.72	.00	7,832.17	47.8%
001201 699900 SERVICES NOT SPECIFI	6,000	6,000	1,415.00	.00	.00	4,585.00	23.6%
TOTAL PROFESSIONAL SERVICE	1,594,500	1,594,500	1,066,848.56	104,709.19	339,067.80	188,583.64	88.2%
70 CAPITAL OUTLAY							
001201 742000 PICK UP TRUCKS	0	39,228	39,228.00	39,228.00	.00	.00	100.0%
TOTAL CAPITAL OUTLAY	0	39,228	39,228.00	39,228.00	.00	.00	100.0%
TOTAL STREET DIV.	2,912,300	2,951,528	1,551,493.14	254,741.34	354,621.35	1,045,413.51	64.6%
001202 STREET LIGHTS							
60 PROFESSIONAL SERVICE							
001202 630500 ELECTRICITY	1,400,000	1,400,000	592,393.95	120,894.20	.00	807,606.05	42.3%
TOTAL PROFESSIONAL SERVICE	1,400,000	1,400,000	592,393.95	120,894.20	.00	807,606.05	42.3%
TOTAL STREET LIGHTS	1,400,000	1,400,000	592,393.95	120,894.20	.00	807,606.05	42.3%
001203 ENGR/PUBLIC SER							
40 PERSONAL SERVICES							
001203 400000 REGULAR WAGES	445,000	445,000	172,370.76	31,339.49	.00	272,629.24	38.7%
001203 430000 OVERTIME	1,000	1,000	436.28	176.68	.00	563.72	43.6%
001203 460000 STATE RETIREMENT	80,400	80,400	30,932.54	5,641.41	.00	49,467.46	38.5%
001203 470000 F.I.C.A. TAXES	34,200	34,200	12,502.51	2,267.54	.00	21,697.49	36.6%
001203 480000 HOSPITALIZATION INS.	58,800	58,800	22,042.00	7,608.40	.00	36,758.00	37.5%
TOTAL PERSONAL SERVICES	619,400	619,400	238,284.09	47,033.52	.00	381,115.91	38.5%
50 SUPPLIES & EXPENSES							
001203 500300 PAPER	1,000	1,000	166.89	.00	.00	833.11	16.7%

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FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001203 501000 OTHER EXPENDABLE OFF	2,700	2,700	1,304.85	228.44	309.07	1,086.08	59.8%
001203 502000 MINOR OFFICE EQUIP/F	3,000	3,000	2,680.65	585.52	42.79	276.56	90.8%
001203 505000 SUBSCRIPTIONS,MAGS,M	450	450	33.81	33.81	.00	416.19	7.5%
001203 508000 COMPUTER SUPPLIES	5,000	5,000	.00	.00	65.98	4,934.02	1.3%
001203 525000 GAS AND OIL	2,200	2,200	221.81	72.86	.00	1,978.19	10.1%
001203 546000 MINOR EQUIPMENT	250	250	74.20	.00	.00	175.80	29.7%
001203 560000 BUILDING MATERIALS &	300	300	.00	.00	19.90	280.10	6.6%
001203 570000 MTR VEHICLE REP. PTS	1,000	1,000	826.00	165.20	.00	174.00	82.6%
TOTAL SUPPLIES & EXPENSES	15,900	15,900	5,308.21	1,085.83	437.74	10,154.05	36.1%
60 PROFESSIONAL SERVICE							
001203 601500 ENGINEERING	177,412	177,162	73,183.01	17,982.00	4,226.11	99,752.88	43.7%
001203 602000 CONSULTANT SERV/SURV	10,000	10,000	1,430.00	1,430.00	.00	8,570.00	14.3%
001203 604900 OTHER PROFESSIONAL S	86,500	86,500	34,000.00	11,500.00	.00	52,500.00	39.3%
001203 606000 TELEPHONE AND TELEGR	3,300	3,300	1,761.44	422.36	.00	1,538.56	53.4%
001203 607000 POSTAGE	1,250	1,250	.00	.00	188.08	1,061.92	15.0%
001203 611000 TRAVEL EXPENSE	3,000	3,000	2,339.03	1,055.31	635.86	25.11	99.2%
001203 613000 MESSENGER/EXPRESS SE	400	400	228.44	39.21	.00	171.56	57.1%
001203 620000 PRINTING	300	550	550.00	550.00	.00	.00	100.0%
001203 630000 GAS	1,500	1,500	1,104.05	703.43	.00	395.95	73.6%
001203 630500 ELECTRICITY	6,000	6,000	3,243.80	457.00	.00	2,756.20	54.1%
001203 638400 MOTOR VEHICLE EQ. R&	1,000	1,000	224.95	224.95	.00	775.05	22.5%
001203 639400 DISINFECT./EXTERMINA	750	750	110.00	.00	.00	640.00	14.7%
001203 641000 OFFICE EQUIPMENT REN	4,000	4,000	1,613.12	69.38	.00	2,386.88	40.3%
001203 684000 DUES AND MEMBERSHIPS	400	460	460.00	.00	.00	.00	100.0%
001203 684500 REGISTRATION FEE/TUI	2,450	2,390	660.00	100.00	.00	1,730.00	27.6%
001203 687000 CUSTODIAL SERVICE	5,940	5,940	1,907.80	325.00	3,074.00	958.20	83.9%
001203 699900 SERVICES NOT SPECIFI	50,000	50,000	34,093.50	.00	.00	15,906.50	68.2%
TOTAL PROFESSIONAL SERVICE	354,202	354,202	156,909.14	34,858.64	8,124.05	189,168.81	46.6%
TOTAL ENGR/PUBLIC SER	989,502	989,502	400,501.44	82,977.99	8,561.79	580,438.77	41.3%
001204 SHOP DIVISION							
40 PERSONAL SERVICES							
001204 400000 REGULAR WAGES	321,600	321,600	70,469.21	10,467.57	.00	251,130.79	21.9%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001204 430000 OVERTIME	12,000	12,000	2,169.10	161.84	.00	9,830.90	18.1%
001204 460000 STATE RETIREMENT	60,200	60,200	13,056.77	1,912.58	.00	47,143.23	21.7%
001204 470000 F.I.C.A. TAXES	25,600	25,600	5,459.63	793.29	.00	20,140.37	21.3%
001204 480000 HOSPITALIZATION INS.	67,200	67,200	24,027.40	16,804.20	.00	43,172.60	35.8%
TOTAL PERSONAL SERVICES	486,600	486,600	115,182.11	30,139.48	.00	371,417.89	23.7%
50 SUPPLIES & EXPENSES							
001204 512000 MEDICAL SUPPLIES	350	350	69.28	.00	.00	280.72	19.8%
001204 513000 CHEMICALS	5,000	5,000	48.75	.00	.00	4,951.25	1.0%
001204 525000 GAS AND OIL	2,000	2,000	416.80	215.72	.00	1,583.20	20.8%
001204 525500 LUBRICANTS	3,500	3,500	2,863.88	.00	.00	636.12	81.8%
001204 545000 HAND TOOLS	750	750	261.51	94.52	378.26	110.23	85.3%
001204 559000 OTHER OPERATING MATL	4,300	3,700	1,027.08	.00	611.12	2,061.80	44.3%
001204 560500 ELECTRICAL SUPPLIES	800	1,400	957.74	.00	.00	442.26	68.4%
001204 570000 MTR VEHICLE REP. PTS	3,500	3,500	1,597.39	108.48	.00	1,902.61	45.6%
TOTAL SUPPLIES & EXPENSES	20,200	20,200	7,242.43	418.72	989.38	11,968.19	40.8%
60 PROFESSIONAL SERVICE							
001204 630000 GAS	16,500	16,500	2,700.14	2,368.90	.00	13,799.86	16.4%
001204 630500 ELECTRICITY	26,000	26,000	13,627.41	3,474.55	.00	12,372.59	52.4%
001204 639400 DISINFECT./EXTERMINA	3,000	3,000	138.00	.00	.00	2,862.00	4.6%
001204 642500 CYLINDER RENT	5,000	5,000	3,878.19	691.34	.00	1,121.81	77.6%
001204 643000 UNIFORM RENT	5,000	5,000	1,296.65	218.48	.00	3,703.35	25.9%
TOTAL PROFESSIONAL SERVICE	55,500	55,500	21,640.39	6,753.27	.00	33,859.61	39.0%
TOTAL SHOP DIVISION	562,300	562,300	144,064.93	37,311.47	989.38	417,245.69	25.8%
001205 G O & F S DIV.							
50 SUPPLIES & EXPENSES							
001205 525000 GAS AND OIL	0	0	92.65	.00	.00	-92.65	100.0%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL SUPPLIES & EXPENSES	0	0	92.65	.00	.00	-92.65	100.0%
60 PROFESSIONAL SERVICE							
001205 604900 OTHER PROFESSIONAL S	8,500	8,500	2,814.89	889.89	700.00	4,985.11	41.4%
001205 630500 ELECTRICITY	1,000	1,000	378.65	75.73	.00	621.35	37.9%
001205 639400 DISINFECT./EXTERMINA	1,500	1,500	250.00	.00	.00	1,250.00	16.7%
TOTAL PROFESSIONAL SERVICE	11,000	11,000	3,443.54	965.62	700.00	6,856.46	37.7%
TOTAL G O & F S DIV.	11,000	11,000	3,536.19	965.62	700.00	6,763.81	38.5%
001206 DRAINAGE DIV.							
50 SUPPLIES & EXPENSES							
001206 525000 GAS AND OIL	8,000	8,000	725.07	.00	.00	7,274.93	9.1%
TOTAL SUPPLIES & EXPENSES	8,000	8,000	725.07	.00	.00	7,274.93	9.1%
60 PROFESSIONAL SERVICE							
001206 606000 TELEPHONE AND TELEGR	8,000	8,000	2,132.25	542.46	.00	5,867.75	26.7%
001206 636000 STREETS & STRUCTURES	60,000	60,000	6,300.00	.00	8,330.00	45,370.00	24.4%
TOTAL PROFESSIONAL SERVICE	68,000	68,000	8,432.25	542.46	8,330.00	51,237.75	24.7%
70 CAPITAL OUTLAY							
001206 721501 FACILITIES IMPROVEME	150,000	150,000	5,250.00	.00	.00	144,750.00	3.5%
001206 721504 GORDONS CRK SHEET PI	0	568,860	559,621.69	13,607.50	.00	9,238.31	98.4%
001206 729500 OTHER IMPROVEMENTS	378,000	369,140	264,752.76	.00	14,490.00	89,897.24	75.6%
TOTAL CAPITAL OUTLAY	528,000	1,088,000	829,624.45	13,607.50	14,490.00	243,885.55	77.6%
TOTAL DRAINAGE DIV.	604,000	1,164,000	838,781.77	14,149.96	22,820.00	302,398.23	74.0%

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FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001207 CONSTRUCTION							
40 PERSONAL SERVICES							
001207 400000 REGULAR WAGES	423,000	423,000	158,865.54	26,176.31	.00	264,134.46	37.6%
001207 430000 OVERTIME	10,000	10,000	5,648.30	638.91	.00	4,351.70	56.5%
001207 460000 STATE RETIREMENT	78,100	78,100	29,447.95	4,799.93	.00	48,652.05	37.7%
001207 470000 F.I.C.A. TAXES	33,200	33,200	12,363.15	2,006.59	.00	20,836.85	37.2%
001207 480000 HOSPITALIZATION INS.	92,400	92,400	37,664.40	15,412.60	.00	54,735.60	40.8%
TOTAL PERSONAL SERVICES	636,700	636,700	243,989.34	49,034.34	.00	392,710.66	38.3%
50 SUPPLIES & EXPENSES							
001207 502000 MINOR OFFICE EQUIP/F	1,000	1,000	499.00	499.00	.00	501.00	49.9%
001207 525000 GAS AND OIL	20,000	20,000	3,774.91	1,026.65	.00	16,225.09	18.9%
001207 525500 LUBRICANTS	400	400	105.80	.00	.00	294.20	26.5%
001207 525700 DIESEL FUEL	1,300	1,300	52.88	.00	.00	1,247.12	4.1%
001207 535500 WEARING APPAREL	1,000	1,000	257.62	.00	594.00	148.38	85.2%
001207 545000 HAND TOOLS	1,500	1,500	275.91	245.44	.00	1,224.09	18.4%
001207 546000 MINOR EQUIPMENT	4,000	4,000	.00	.00	469.00	3,531.00	11.7%
001207 559000 OTHER OPERATING MATL	7,000	7,000	3,446.80	152.30	1,153.63	2,399.57	65.7%
001207 560000 BUILDING MATERIALS &	5,000	10,000	4,349.44	420.24	2,594.56	3,056.00	69.4%
001207 560500 ELECTRICAL SUPPLIES	35,000	35,000	18,136.43	1,548.57	2,762.79	14,100.78	59.7%
001207 561000 PLUMBING SUPPLIES	2,000	2,000	390.65	.00	51.60	1,557.75	22.1%
001207 565000 PAINT AND PAINTING S	4,000	4,000	2,044.91	.00	65.45	1,889.64	52.8%
001207 570000 MTR VEHICLE REP. PTS	8,000	8,000	1,781.34	783.95	.00	6,218.66	22.3%
001207 599000 OTHER REPAIR/MAINT.	14,000	9,000	531.79	531.79	1,930.80	6,537.41	27.4%
TOTAL SUPPLIES & EXPENSES	104,200	104,200	35,647.48	5,207.94	9,621.83	58,930.69	43.4%
60 PROFESSIONAL SERVICE							
001207 604900 OTHER PROFESSIONAL S	1,000	1,000	899.09	53.26	.00	100.91	89.9%
001207 606000 TELEPHONE AND TELEGR	1,600	1,600	299.89	59.84	.00	1,300.11	18.7%
001207 612000 FREIGHT	500	500	229.83	.00	.00	270.17	46.0%
001207 638300 GENERATOR R&M	70,000	68,500	23,900.00	1,160.00	2,960.00	41,640.00	39.2%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001207 638400 MOTOR VEHICLE EQ. R&	10,000	9,000	905.17	.00	.00	8,094.83	10.1%
001207 639100 DOWNTOWN LIGHTS R&M	50,000	45,750	9,018.38	5,823.59	35,449.20	1,282.42	97.2%
001207 639900 OTHER REPAIRS AND MA	2,000	2,000	1,204.58	.00	.00	795.42	60.2%
001207 642000 MACHINERY RENT	0	6,750	5,648.90	.00	.00	1,101.10	83.7%
001207 642500 CYLINDER RENT	3,500	3,500	1,546.65	327.17	.00	1,953.35	44.2%
001207 643000 UNIFORM RENT	5,500	5,500	2,044.16	365.21	.00	3,455.84	37.2%
TOTAL PROFESSIONAL SERVICE	144,100	144,100	45,696.65	7,789.07	38,409.20	59,994.15	58.4%
TOTAL CONSTRUCTION	885,000	885,000	325,333.47	62,031.35	48,031.03	511,635.50	42.2%
001220 SANITATION DIV.							
40 PERSONAL SERVICES							
001220 400000 REGULAR WAGES	1,280,500	1,280,500	399,222.50	68,032.44	.00	881,277.50	31.2%
001220 430000 OVERTIME	42,000	42,000	9,187.72	3,568.42	.00	32,812.28	21.9%
001220 460000 STATE RETIREMENT	238,500	238,500	73,105.37	12,816.55	.00	165,394.63	30.7%
001220 470000 F.I.C.A. TAXES	101,200	101,200	30,471.49	5,313.32	.00	70,728.51	30.1%
001220 480000 HOSPITALIZATION INS.	285,600	285,600	99,688.64	43,762.15	.00	185,911.36	34.9%
001220 490000 UNEMPLOYMENT BENEFIT	4,000	4,000	5,859.08	.00	.00	-1,859.08	146.5%
TOTAL PERSONAL SERVICES	1,951,800	1,951,800	617,534.80	133,492.88	.00	1,334,265.20	31.6%
50 SUPPLIES & EXPENSES							
001220 510000 CLEANING/JANITORIAL	1,700	1,700	644.36	216.51	.00	1,055.64	37.9%
001220 513000 CHEMICALS	15,000	15,000	1,776.76	.00	.00	13,223.24	11.8%
001220 525000 GAS AND OIL	12,000	12,000	4,425.86	1,331.39	.00	7,574.14	36.9%
001220 525700 DIESEL FUEL	200,000	200,000	44,785.52	13,626.49	.00	155,214.48	22.4%
001220 535500 WEARING APPAREL	1,000	1,000	617.06	617.06	.00	382.94	61.7%
001220 559000 OTHER OPERATING MATL	50,000	50,000	11,209.75	686.85	.00	38,790.25	22.4%
001220 559100 OTHER OPER.MATLS-FUL	8,500	8,500	765.12	.00	1.38	7,733.50	9.0%
001220 570000 MTR VEHICLE REP. PTS	120,000	120,000	65,950.75	10,749.78	6,498.08	47,551.17	60.4%
TOTAL SUPPLIES & EXPENSES	408,200	408,200	130,175.18	27,228.08	6,499.46	271,525.36	33.5%
60 PROFESSIONAL SERVICE							
001220 604900 OTHER PROFESSIONAL S	8,500	8,500	2,951.38	696.70	160.00	5,388.62	36.6%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001220 612000 FREIGHT	3,000	3,000	951.22	125.00	190.94	1,857.84	38.1%
001220 630500 ELECTRICITY	7,000	7,000	2,624.41	588.20	.00	4,375.59	37.5%
001220 638400 MOTOR VEHICLE EQ. R&	150,000	150,000	132,129.24	43,798.17	13,059.23	4,811.53	96.8%
001220 639800 TOW IN CHARGES	5,000	5,000	4,400.00	1,150.00	.00	600.00	88.0%
001220 639900 OTHER REPAIRS AND MA	2,500	2,500	185.00	.00	142.55	2,172.45	13.1%
001220 643000 UNIFORM RENT	15,000	15,000	7,252.58	848.67	.00	7,747.42	48.4%
001220 643500 MOP-MAT-RAG RENT	1,500	1,500	1,484.78	72.17	.00	15.22	99.0%
001220 688000 TIPPING FEES	1,000,000	1,000,000	451,236.70	134,046.35	26,166.33	522,596.97	47.7%
001220 688500 TIPPING/DISPOSAL OTH	60,000	60,000	40,076.27	.00	9,732.67	10,191.06	83.0%
001220 689000 RECYCLING FEES	180,000	180,000	84,694.95	.00	90,000.00	5,305.05	97.1%
TOTAL PROFESSIONAL SERVICE	1,432,500	1,432,500	727,986.53	181,325.26	139,451.72	565,061.75	60.6%
70 CAPITAL OUTLAY							
001220 742000 PICK UP TRUCKS	0	39,998	39,998.00	39,998.00	.00	.00	100.0%
001220 746000 SANITATION TRUCKS	0	990,000	330,000.00	.00	705,000.00	-45,000.00	104.5%
TOTAL CAPITAL OUTLAY	0	1,029,998	369,998.00	39,998.00	705,000.00	-45,000.00	104.4%
TOTAL SANITATION DIV.	3,792,500	4,822,498	1,845,694.51	382,044.22	850,951.18	2,125,852.31	55.9%
001250 HEALTH DIVISION							
40 PERSONAL SERVICES							
001250 400000 REGULAR WAGES	971,200	971,200	260,155.01	45,087.53	.00	711,044.99	26.8%
001250 430000 OVERTIME	28,000	28,000	11,471.26	728.73	.00	16,528.74	41.0%
001250 460000 STATE RETIREMENT	180,200	180,200	48,621.11	8,201.10	.00	131,578.89	27.0%
001250 470000 F.I.C.A. TAXES	76,500	76,500	20,496.98	3,452.40	.00	56,003.02	26.8%
001250 480000 HOSPITALIZATION INS.	252,000	252,000	67,678.50	24,659.20	.00	184,321.50	26.9%
TOTAL PERSONAL SERVICES	1,507,900	1,507,900	408,422.86	82,128.96	.00	1,099,477.14	27.1%
50 SUPPLIES & EXPENSES							
001250 513000 CHEMICALS	40,000	40,000	13,368.75	.00	.00	26,631.25	33.4%

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FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001250 525000 GAS AND OIL	25,000	25,000	6,746.49	1,810.74	.00	18,253.51	27.0%
001250 525700 DIESEL FUEL	6,000	6,000	1,884.46	690.88	.00	4,115.54	31.4%
001250 545000 HAND TOOLS	500	500	83.80	.00	.00	416.20	16.8%
001250 559000 OTHER OPERATING MATL	1,000	1,000	29.90	.00	.00	970.10	3.0%
001250 570000 MTR VEHICLE REP. PTS	7,000	7,000	453.43	.00	.00	6,546.57	6.5%
001250 575500 AGRICLTRL REPAIR PTS	38,000	38,000	10,118.29	2,858.87	1,869.81	26,011.90	31.5%
TOTAL SUPPLIES & EXPENSES	117,500	117,500	32,685.12	5,360.49	1,869.81	82,945.07	29.4%
60 PROFESSIONAL SERVICE							
001250 638700 AGRICULTURAL EQ. R&M	1,000	1,000	52.56	.00	.00	947.44	5.3%
TOTAL PROFESSIONAL SERVICE	1,000	1,000	52.56	.00	.00	947.44	5.3%
TOTAL HEALTH DIVISION	1,626,400	1,626,400	441,160.54	87,489.45	1,869.81	1,183,369.65	27.2%
001260 ANIMAL CONTROL							
40 PERSONAL SERVICES							
001260 400000 REGULAR WAGES	117,100	117,100	42,473.69	7,660.97	.00	74,626.31	36.3%
001260 430000 OVERTIME	2,500	2,500	5,980.01	1,070.27	.00	-3,480.01	239.2%
001260 460000 STATE RETIREMENT	18,750	18,750	8,673.17	1,562.89	.00	10,076.83	46.3%
001260 470000 F.I.C.A. TAXES	9,000	9,000	3,524.51	631.49	.00	5,475.49	39.2%
001260 480000 HOSPITALIZATION INS.	25,200	25,200	9,021.00	1,804.20	.00	16,179.00	35.8%
TOTAL PERSONAL SERVICES	172,550	172,550	69,672.38	12,729.82	.00	102,877.62	40.4%
50 SUPPLIES & EXPENSES							
001260 525000 GAS AND OIL	8,000	8,000	978.68	424.52	.00	7,021.32	12.2%
001260 535500 WEARING APPAREL	1,500	1,500	1,328.78	.00	.00	171.22	88.6%
001260 570000 MTR VEHICLE REP. PTS	1,000	1,000	450.00	.00	.00	550.00	45.0%
TOTAL SUPPLIES & EXPENSES	10,500	10,500	2,757.46	424.52	.00	7,742.54	26.3%
60 PROFESSIONAL SERVICE							
001260 699900 SERVICES NOT SPECIFI	317,000	317,000	129,939.12	20,833.33	.00	187,060.88	41.0%

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FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL PROFESSIONAL SERVICE	317,000	317,000	129,939.12	20,833.33	.00	187,060.88	41.0%
TOTAL ANIMAL CONTROL	500,050	500,050	202,368.96	33,987.67	.00	297,681.04	40.5%
001280 HUMAN/SOC.ASST							
60 PROFESSIONAL SERVICE							
001280 604900 OTHER PROFESSIONAL S	0	0	2,950.00	.00	.00	-2,950.00	100.0%
001280 682022 RAILS TO TRAILS	128,000	128,000	128,000.00	128,000.00	.00	.00	100.0%
001280 682099 UNALLOCATED CONTRIBU	50,000	50,000	50,000.00	.00	.00	.00	100.0%
TOTAL PROFESSIONAL SERVICE	178,000	178,000	180,950.00	128,000.00	.00	-2,950.00	101.7%
TOTAL HUMAN/SOC.ASST	178,000	178,000	180,950.00	128,000.00	.00	-2,950.00	101.7%
001402 ECONOMIC DEV.							
001402 729524 TIMBERTON PARK-FEMA	750,000	1,821,131	1,152,722.01	.00	.00	668,408.99	63.3%
TOTAL UNDEFINED CHAR	750,000	1,821,131	1,152,722.01	.00	.00	668,408.99	63.3%
60 PROFESSIONAL SERVICE							
001402 604900 OTHER PROFESSIONAL S	200,000	3,493,767	758,779.60	31,541.72	14,321.00	2,720,666.40	22.1%
001402 682001 FCIPC/AREA DEV. PRTN	325,000	325,000	162,500.00	.00	.00	162,500.00	50.0%
TOTAL PROFESSIONAL SERVICE	525,000	3,818,767	921,279.60	31,541.72	14,321.00	2,883,166.40	24.5%
70 CAPITAL OUTLAY							
001402 700000 LAND	0	1,500,000	150,720.45	.00	.00	1,349,279.55	10.0%
001402 729551 HWY11 VETERANS BLVD	0	400,620	399,429.22	.00	.00	1,190.80	99.7%
001402 790100 MISCELLANEOUS CAP PRO	150,000	666,250	135,412.71	.00	600.00	530,237.27	20.4%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL CAPITAL OUTLAY	150,000	2,566,870	685,562.38	.00	600.00	1,880,707.62	26.7%
TOTAL ECONOMIC DEV.	1,425,000	8,206,768	2,759,563.99	31,541.72	14,921.00	5,432,283.01	33.8%
001460 CAPITAL LEASES							
80 DEBT SERVICE							
001460 822306 MDB-CHURCH PROJ	22,000	22,000	8,984.65	1,796.93	.00	13,015.35	40.8%
001460 833306 MDB-CHURCH PROJ	3,000	3,000	1,152.76	187.79	.00	1,847.24	38.4%
001460 840100 LEASE ISSUES	3,000	3,000	3,000.00	.00	.00	.00	100.0%
001460 851600 PUBLIC SAFETY COMPLE	240,000	240,000	240,000.00	.00	.00	.00	100.0%
001460 851900 ENERGY PERFORMANCE I	500,158	500,158	248,478.46	248,478.46	.00	251,679.54	49.7%
001460 861600 PUBLIC SAFETY COMPLE	171,650	171,650	86,798.05	.00	.00	84,851.95	50.6%
001460 861900 ENERGY PERFORMANCE I	120,798	120,798	61,998.04	61,998.04	.00	58,799.96	51.3%
TOTAL DEBT SERVICE	1,060,606	1,060,606	650,411.96	312,461.22	.00	410,194.04	61.3%
TOTAL CAPITAL LEASES	1,060,606	1,060,606	650,411.96	312,461.22	.00	410,194.04	61.3%
001500 TRANSFERS							
90 TRANSFERS							
001500 900002 T/T PARKS & RECREATI	2,560,281	2,710,281	2,000,000.00	.00	.00	710,281.00	73.8%
001500 900039 T/T AIRPORT IMPROVEM	250,000	250,000	250,000.00	.00	.00	.00	100.0%
001500 900052 T/T 2019 TIF B&I-ELA	68,840	68,840	68,840.00	.00	.00	.00	100.0%
001500 900073 T/T MASS TRANSIT OPE	445,000	445,000	445,000.00	.00	.00	.00	100.0%
001500 900077 T/T COMMUNITY CENTER	853,500	853,500	853,500.00	.00	.00	.00	100.0%
001500 900082 T/T COMMUNITY DEVELO	36,000	36,000	36,000.00	.00	.00	.00	100.0%
TOTAL TRANSFERS	4,213,621	4,363,621	3,653,340.00	.00	.00	710,281.00	83.7%
TOTAL TRANSFERS	4,213,621	4,363,621	3,653,340.00	.00	.00	710,281.00	83.7%
001551 AIRPORT DIV.							
50 SUPPLIES & EXPENSES							

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001551 559000 OTHER OPERATING MATL	2,000	2,000	83.88	.00	.00	1,916.12	4.2%
TOTAL SUPPLIES & EXPENSES	2,000	2,000	83.88	.00	.00	1,916.12	4.2%
60 PROFESSIONAL SERVICE							
001551 630000 GAS	2,000	2,000	197.12	43.06	.00	1,802.88	9.9%
001551 630500 ELECTRICITY	15,000	15,000	8,016.47	1,653.05	.00	6,983.53	53.4%
001551 635000 BUILDING R&M	5,000	6,386	1,534.07	.00	4,851.50	.00	100.0%
001551 639400 DISINFECT./EXTERMINA	800	800	180.00	.00	.00	620.00	22.5%
TOTAL PROFESSIONAL SERVICE	22,800	24,186	9,927.66	1,696.11	4,851.50	9,406.41	61.1%
TOTAL AIRPORT DIV.	24,800	26,186	10,011.54	1,696.11	4,851.50	11,322.53	56.8%
001553 CEMETERY DIV							
40 PERSONAL SERVICES							
001553 400000 REGULAR WAGES	609,000	609,000	218,611.83	39,305.98	.00	390,388.17	35.9%
001553 430000 OVERTIME	31,000	31,000	18,226.80	4,280.98	.00	12,773.20	58.8%
001553 460000 STATE RETIREMENT	113,000	113,000	41,248.29	7,622.82	.00	71,751.71	36.5%
001553 470000 F.I.C.A. TAXES	49,000	49,000	17,755.17	3,261.34	.00	31,244.83	36.2%
001553 480000 HOSPITALIZATION INS.	134,400	134,400	56,496.80	23,419.60	.00	77,903.20	42.0%
TOTAL PERSONAL SERVICES	936,400	936,400	352,338.89	77,890.72	.00	584,061.11	37.6%
50 SUPPLIES & EXPENSES							
001553 500500 PRINTED FORMS	300	300	165.00	.00	.00	135.00	55.0%
001553 501000 OTHER EXPENDABLE OFF	1,600	1,600	252.62	.00	212.19	1,135.19	29.1%
001553 502000 MINOR OFFICE EQUIP/F	900	900	176.32	.00	.00	723.68	19.6%
001553 510000 CLEANING/JANITORIAL	1,500	1,500	809.95	.00	.00	690.05	54.0%
001553 513000 CHEMICALS	1,500	1,500	350.00	.00	.00	1,150.00	23.3%
001553 525000 GAS AND OIL	16,000	16,000	3,783.34	1,007.05	.00	12,216.66	23.6%
001553 525700 DIESEL FUEL	14,000	14,000	2,312.41	753.43	.00	11,687.59	16.5%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001553 535500 WEARING APPAREL	2,000	2,000	1,342.50	.00	17.08	640.42	68.0%
001553 541500 SAND,CLAY,GRVL,FILL	4,000	4,000	1,625.00	650.00	.00	2,375.00	40.6%
001553 544000 HORT./LANDSCAPING SP	4,000	4,000	2,871.49	2,093.95	660.60	467.91	88.3%
001553 545000 HAND TOOLS	800	800	143.94	143.94	.00	656.06	18.0%
001553 546000 MINOR EQUIPMENT	4,300	4,300	659.76	.00	.00	3,640.24	15.3%
001553 560000 BUILDING MATERIALS &	800	800	306.00	306.00	.00	494.00	38.3%
001553 561000 PLUMBING SUPPLIES	500	500	132.55	.00	.00	367.45	26.5%
001553 570000 MTR VEHICLE REP. PTS	15,000	13,000	7,971.52	276.98	.00	5,028.48	61.3%
001553 575500 AGRICLTRL REPAIR PTS	10,000	12,000	11,273.40	390.40	.00	726.60	93.9%
TOTAL SUPPLIES & EXPENSES	77,200	77,200	34,175.80	5,621.75	889.87	42,134.33	45.4%
60 PROFESSIONAL SERVICE							
001553 604900 OTHER PROFESSIONAL S	3,800	5,500	3,887.07	538.08	.00	1,612.93	70.7%
001553 606000 TELEPHONE AND TELEGR	1,800	1,800	388.90	58.84	.00	1,411.10	21.6%
001553 611000 TRAVEL EXPENSE	900	900	346.39	210.39	156.59	397.02	55.9%
001553 612000 FREIGHT	575	575	.00	.00	65.00	510.00	11.3%
001553 630000 GAS	1,000	1,000	1,015.16	600.24	.00	-15.16	101.5%
001553 630500 ELECTRICITY	7,126	7,126	3,853.37	572.51	.00	3,272.63	54.1%
001553 638000 FIXED EQUIPMENT R&M	3,000	3,000	450.00	.00	.00	2,550.00	15.0%
001553 638400 MOTOR VEHICLE EQ. R&	15,000	15,000	.00	.00	331.00	14,669.00	2.2%
001553 639400 DISINFECT./EXTERMINA	1,000	1,000	200.00	.00	.00	800.00	20.0%
001553 639900 OTHER REPAIRS AND MA	1,500	1,500	95.00	.00	.00	1,405.00	6.3%
001553 643000 UNIFORM RENT	6,100	6,100	3,048.03	473.03	.00	3,051.97	50.0%
001553 643500 MOP-MAT-RAG RENT	2,000	2,000	654.17	114.84	.00	1,345.83	32.7%
001553 683200 BANK SERV/TRF FEE	0	0	235.96	52.65	.00	-235.96	100.0%
001553 684000 DUES AND MEMBERSHIPS	240	740	271.99	165.00	.00	468.01	36.8%
TOTAL PROFESSIONAL SERVICE	44,041	46,241	14,446.04	2,785.58	552.59	31,242.37	32.4%
70 CAPITAL OUTLAY							
001553 700000 LAND	5,000	5,000	1,925.00	.00	.00	3,075.00	38.5%
001553 704500 SITE IMPROVEMENT	5,000	5,000	1,209.57	.00	.00	3,790.43	24.2%
001553 732800 SOFTWARE	0	0	.00	.00	18,200.00	-18,200.00	100.0%
001553 733500 AGRICULTURAL EQUIPME	20,000	20,000	10,977.90	989.98	.00	9,022.10	54.9%
TOTAL CAPITAL OUTLAY	30,000	30,000	14,112.47	989.98	18,200.00	-2,312.47	107.7%
TOTAL CEMETERY DIV	1,087,641	1,089,841	415,073.20	87,288.03	19,642.46	655,125.34	39.9%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001560 PARKING OPER.							
40 PERSONAL SERVICES							
001560 400000 REGULAR WAGES	43,910	43,910	10,278.00	1,944.00	.00	33,632.00	23.4%
001560 470000 F.I.C.A. TAXES	3,450	3,450	786.28	148.72	.00	2,663.72	22.8%
TOTAL PERSONAL SERVICES	47,360	47,360	11,064.28	2,092.72	.00	36,295.72	23.4%
60 PROFESSIONAL SERVICE							
001560 630500 ELECTRICITY	15,000	15,000	5,662.79	1,175.56	.00	9,337.21	37.8%
001560 640200 PARKING GARAGE/LOT R	25,000	25,000	12,449.10	2,489.82	.00	12,550.90	49.8%
TOTAL PROFESSIONAL SERVICE	40,000	40,000	18,111.89	3,665.38	.00	21,888.11	45.3%
TOTAL PARKING OPER.	87,360	87,360	29,176.17	5,758.10	.00	58,183.83	33.4%
TOTAL General Fund	59,834,327	69,782,137	30,882,531.83	5,239,249.50	2,590,269.49	36,309,335.74	48.0%
TOTAL EXPENSES	59,834,327	69,782,137	30,882,531.83	5,239,249.50	2,590,269.49	36,309,335.74	
002 PARKS & RECREATION FUND							
002300 PKS/REC-RECREATION MAINT. DIV.							
40 PERSONAL SERVICES							
002300 400000 REGULAR WAGES	1,319,000	1,319,000	480,936.03	92,618.27	.00	838,063.97	36.5%
002300 430000 OVERTIME	40,000	40,000	22,857.49	2,065.35	.00	17,142.51	57.1%
002300 460000 STATE RETIREMENT	237,000	237,000	88,394.78	16,650.48	.00	148,605.22	37.3%
002300 470000 F.I.C.A. TAXES	100,500	100,500	37,974.38	7,127.46	.00	62,525.62	37.8%
002300 480000 HOSPITALIZATION INS.	302,400	302,400	108,551.30	34,227.20	.00	193,848.70	35.9%
TOTAL PERSONAL SERVICES	1,998,900	1,998,900	738,713.98	152,688.76	.00	1,260,186.02	37.0%
50 SUPPLIES & EXPENSES							
002300 501000 OTHER EXPENDABLE OFF	3,300	3,300	119.83	21.39	.00	3,180.17	3.6%

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002	PARKS & RECREATION FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
002300	502000 MINOR OFFICE EQUIP/F	2,000	2,000	149.67	.00	.00	1,850.33	7.5%
002300	510000 CLEANING/JANITORIAL	21,000	21,000	9,142.24	2,304.17	1,792.91	10,064.85	52.1%
002300	513000 CHEMICALS	21,000	21,000	9,745.98	5,444.98	4,821.38	6,432.64	69.4%
002300	525000 GAS AND OIL	56,000	56,000	19,362.19	5,222.24	.00	36,637.81	34.6%
002300	525500 LUBRICANTS	6,000	6,000	1,370.04	.00	.00	4,629.96	22.8%
002300	525700 DIESEL FUEL	1,000	1,000	151.71	.00	.00	848.29	15.2%
002300	535500 WEARING APPAREL	3,000	3,000	365.00	.00	1,710.00	925.00	69.2%
002300	540500 CONCRETE, CEMENT, ET	1,000	1,000	21.00	.00	.00	979.00	2.1%
002300	541500 SAND,CLAY,GRVL,FILL	10,000	9,000	2,385.00	700.00	40.75	6,574.25	27.0%
002300	544000 HORT./LANDSCAPING SP	42,000	43,000	42,473.01	983.07	300.00	226.99	99.5%
002300	546000 MINOR EQUIPMENT	5,300	5,300	972.79	136.45	127.20	4,200.01	20.8%
002300	551000 RECREATIONAL SUPPLIE	35,000	35,000	15,057.10	3,850.71	7,697.04	12,245.86	65.0%
002300	559000 OTHER OPERATING MATL	6,000	6,000	1,245.72	359.60	53.40	4,700.88	21.7%
002300	560000 BUILDING MATERIALS &	19,500	19,500	6,090.70	.00	211.35	13,197.95	32.3%
002300	560500 ELECTRICAL SUPPLIES	17,000	17,000	16,369.37	102.25	283.35	347.28	98.0%
002300	561000 PLUMBING SUPPLIES	7,000	7,000	2,675.06	306.92	88.90	4,236.04	39.5%
002300	565000 PAINT AND PAINTING S	24,000	24,000	6,495.53	.00	8,262.84	9,241.63	61.5%
002300	570000 MTR VEHICLE REP. PTS	30,000	30,000	9,937.65	2,558.78	5,490.21	14,572.14	51.4%
002300	575000 COMMUNICATION REPAIR	1,700	1,700	1,573.50	.00	.00	126.50	92.6%
002300	575500 AGRICLTRL REPAIR PTS	30,000	30,000	14,156.44	2,501.69	13,715.36	2,128.20	92.9%
002300	599000 OTHER REPAIR/MAINT.	1,500	1,500	176.41	.00	.00	1,323.59	11.8%
TOTAL SUPPLIES & EXPENSES		343,300	343,300	160,035.94	26,065.75	44,594.69	138,669.37	59.6%
60 PROFESSIONAL SERVICE								
002300	604900 OTHER PROFESSIONAL S	26,947	26,947	23,643.57	.00	.00	3,303.43	87.7%
002300	606000 TELEPHONE AND TELEGR	2,000	2,000	568.79	113.68	.00	1,431.21	28.4%
002300	611000 TRAVEL EXPENSE	450	450	424.00	.00	.00	26.00	94.2%
002300	612000 FREIGHT	7,800	7,800	2,351.98	895.39	439.81	5,008.21	35.8%
002300	630500 ELECTRICITY	13,800	13,800	5,937.08	1,769.00	.00	7,862.92	43.0%
002300	635000 BUILDING R&M	5,000	5,000	713.48	.00	1,335.00	2,951.52	41.0%
002300	635500 ELECTRICAL R&M	35,000	35,000	13,007.93	3,330.35	.00	21,992.07	37.2%
002300	635700 PLUMBING EQUIPMENT R	12,000	12,000	593.84	.00	.00	11,406.16	4.9%
002300	636000 STREETS & STRUCTURES	120,000	120,000	77,477.10	19,500.00	650.00	41,872.90	65.1%
002300	638000 FIXED EQUIPMENT R&M	21,000	21,000	7,374.39	3,781.25	3,575.00	10,050.61	52.1%
002300	638400 MOTOR VEHICLE EQ. R&	16,000	16,000	8,998.87	3,940.90	3,445.99	3,555.14	77.8%
002300	638700 AGRICULTURAL EQ. R&M	18,500	18,500	17,512.12	575.50	983.33	4.55	100.0%
002300	639000 COMMUNICATION EQ. R&	1,500	1,500	807.56	.00	.00	692.44	53.8%
002300	639400 DISINFECT./EXTERMINA	1,800	1,800	69.00	.00	60.00	1,671.00	7.2%
002300	639600 SIGN PAINTING	9,500	9,500	1,688.50	.00	255.32	7,556.18	20.5%
002300	639800 TOW IN CHARGES	1,250	1,250	875.00	400.00	.00	375.00	70.0%

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002	PARKS & RECREATION FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
002300 639900	OTHER REPAIRS AND MA	1,500	1,500	1,105.00	.00	.00	395.00	73.7%
002300 642000	MACHINERY RENT	850	850	82.50	.00	.00	767.50	9.7%
002300 643000	UNIFORM RENT	8,000	8,000	7,057.68	888.84	.00	942.32	88.2%
002300 644900	OTHER RENT	39,850	39,850	25,686.12	1,285.32	795.00	13,368.88	66.5%
002300 684500	REGISTRATION FEE/TUI	1,800	1,800	550.00	.00	.00	1,250.00	30.6%
002300 687000	CUSTODIAL SERVICE	4,560	4,560	2,509.08	830.00	2,936.92	-886.00	119.4%
002300 699900	SERVICES NOT SPECIFI	207,240	207,240	36,601.15	6,717.67	767.00	169,871.85	18.0%
TOTAL PROFESSIONAL SERVICE		556,347	556,347	235,634.74	44,027.90	15,243.37	305,468.89	45.1%
70 CAPITAL OUTLAY								
002300 729599	MISC.OTHER IMPROVEME	0	75,000	.00	.00	74,999.75	.25	100.0%
002300 732500	OFFICE FURN/EQUIP.	0	6,288	123.05	123.05	.00	6,164.95	2.0%
002300 739900	OTHER EQUIPMENT	0	236,200	77,956.22	5,750.00	65,958.75	92,285.03	60.9%
002300 740000	AUTOMOBILES	0	44,000	38,790.00	.00	.00	5,210.00	88.2%
TOTAL CAPITAL OUTLAY		0	361,488	116,869.27	5,873.05	140,958.50	103,660.23	71.3%
TOTAL PKS/REC-RECREATION MAINT. D		2,898,547	3,260,035	1,251,253.93	228,655.46	200,796.56	1,807,984.51	44.5%
002315 PKS/REC-REC.ADMIN/COM.REL.								
40 PERSONAL SERVICES								
002315 400000	REGULAR WAGES	388,750	388,750	121,152.58	23,237.98	.00	267,597.42	31.2%
002315 430000	OVERTIME	6,000	6,000	2,973.18	169.13	.00	3,026.82	49.6%
002315 460000	STATE RETIREMENT	49,000	49,000	22,224.55	4,189.90	.00	26,775.45	45.4%
002315 470000	F.I.C.A. TAXES	30,200	30,200	9,394.07	1,770.32	.00	20,805.93	31.1%
002315 480000	HOSPITALIZATION INS.	50,400	50,400	20,074.00	5,614.80	.00	30,326.00	39.8%
TOTAL PERSONAL SERVICES		524,350	524,350	175,818.38	34,982.13	.00	348,531.62	33.5%
50 SUPPLIES & EXPENSES								
002315 500300	PAPER	500	500	275.94	.00	.00	224.06	55.2%
002315 500500	PRINTED FORMS	300	300	45.00	45.00	.00	255.00	15.0%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
002315 501000 OTHER EXPENDABLE OFF	1,300	1,300	756.68	.00	.00	543.32	58.2%
002315 508000 COMPUTER SUPPLIES	1,500	1,500	187.12	.00	.00	1,312.88	12.5%
002315 511500 FOOD	500	500	166.65	166.65	272.60	60.75	87.9%
002315 513000 CHEMICALS	14,000	14,000	3,487.51	3,309.34	.00	10,512.49	24.9%
002315 535500 WEARING APPAREL	1,000	1,000	986.00	.00	.00	14.00	98.6%
002315 551000 RECREATIONAL SUPPLIE	49,000	49,000	20,694.97	614.53	4,130.98	24,174.05	50.7%
002315 551001 RECREATIONAL SUPP-AR	5,000	5,000	1,400.12	30.10	49.90	3,549.98	29.0%
002315 560001 BLDG MATERIALS & SPL	6,660	6,660	1,627.00	.00	.00	5,033.00	24.4%
002315 570000 MTR VEHICLE REP. PTS	3,000	3,500	18.98	.00	3,104.50	376.52	89.2%
TOTAL SUPPLIES & EXPENSES	82,760	83,260	29,645.97	4,165.62	7,557.98	46,056.05	44.7%
60 PROFESSIONAL SERVICE							
002315 603400 OFFICIALS	44,000	42,000	6,926.25	4,681.25	.00	35,073.75	16.5%
002315 604900 OTHER PROFESSIONAL S	178,000	178,000	116,762.50	27,340.00	1,482.00	59,755.50	66.4%
002315 604919 OTH PROF SERV-ART CE	10,000	10,000	850.00	350.00	.00	9,150.00	8.5%
002315 606000 TELEPHONE AND TELEGR	2,000	2,000	1,490.15	339.18	.00	509.85	74.5%
002315 611000 TRAVEL EXPENSE	4,600	4,600	2,651.17	-461.52	.00	1,948.83	57.6%
002315 615000 ADVERTISING	500	500	220.07	220.07	.00	279.93	44.0%
002315 615200 ADVERTISING-SPEC. EV	1,000	1,000	300.00	.00	.00	700.00	30.0%
002315 630000 GAS	4,000	4,000	1,518.67	887.30	.00	2,481.33	38.0%
002315 630500 ELECTRICITY	190,000	190,000	89,385.72	15,804.61	.00	100,614.28	47.0%
002315 635000 BUILDING R&M	1,000	1,000	22.95	22.95	.00	977.05	2.3%
002315 638400 MOTOR VEHICLE EQ. R&	1,000	3,000	545.00	545.00	2,325.93	129.07	95.7%
002315 638800 RECREATIONAL EQ. R&M	1,000	1,000	.00	.00	25.00	975.00	2.5%
002315 639400 DISINFECT./EXTERMINA	2,000	2,000	592.24	.00	.00	1,407.76	29.6%
002315 683000 PROP.TAX COLL. FEES	7,000	7,000	1,845.05	381.42	.00	5,154.95	26.4%
002315 683100 PROP.TAX COLL. FEES.	8,000	8,000	4,966.60	3,285.71	.00	3,033.40	62.1%
002315 684000 DUES AND MEMBERSHIPS	1,500	2,000	684.64	.00	1,049.00	266.36	86.7%
002315 684500 REGISTRATION FEE/TUI	2,000	2,000	1,694.00	769.00	.00	306.00	84.7%
TOTAL PROFESSIONAL SERVICE	457,600	458,100	230,455.01	54,164.97	4,881.93	222,763.06	51.4%
TOTAL PKS/REC-REC.ADMIN/COM.REL.	1,064,710	1,065,710	435,919.36	93,312.72	12,439.91	617,350.73	42.1%
TOTAL PARKS & RECREATION FUND	3,963,257	4,325,745	1,687,173.29	321,968.18	213,236.47	2,425,335.24	43.9%
TOTAL EXPENSES	3,963,257	4,325,745	1,687,173.29	321,968.18	213,236.47	2,425,335.24	

004 LIBRARY FUND**004369 LIBRARY FUND EXPENDITURES**

60 PROFESSIONAL SERVICE

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004	LIBRARY FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
004369 683000	PROP.TAX COLL. FEES	0	0	1,734.46	353.75	.00	-1,734.46	100.0%
004369 683100	PROP.TAX COLL. FEES.	0	0	4,597.68	3,041.25	.00	-4,597.68	100.0%
	TOTAL PROFESSIONAL SERVICE	0	0	6,332.14	3,395.00	.00	-6,332.14	100.0%
	TOTAL LIBRARY FUND EXPENDITURES	0	0	6,332.14	3,395.00	.00	-6,332.14	100.0%
	TOTAL LIBRARY FUND	0	0	6,332.14	3,395.00	.00	-6,332.14	100.0%
	TOTAL EXPENSES	0	0	6,332.14	3,395.00	.00	-6,332.14	
005 HATT.MUNICIPAL FIRE PROTECTION								
005160 H.M.F.P.FUND-FIRE DIVISION								
70 CAPITAL OUTLAY								
005160 710020	FIRE STATIONS	10,000	10,000	6,515.00	1,640.00	.00	3,485.00	65.2%
005160 735500	COMMUNICATION EQUIPM	15,000	19,635	19,635.00	.00	.00	.00	100.0%
005160 742000	PICK UP TRUCKS	0	46,845	48,093.00	.00	.00	-1,248.00	102.7%
005160 743500	FIRE TRUCKS	0	684,160	.00	.00	684,159.55	.45	100.0%
	TOTAL CAPITAL OUTLAY	25,000	760,640	74,243.00	1,640.00	684,159.55	2,237.45	99.7%
	TOTAL H.M.F.P.FUND-FIRE DIVISION	25,000	760,640	74,243.00	1,640.00	684,159.55	2,237.45	99.7%
005460 H.M.F.P.FUND-CAPITAL LEASES								
80 DEBT SERVICE								
005460 852800	FIRE TRUCKS LEASE-'1	40,475	40,475	28,765.34	5,781.38	.00	11,709.66	71.1%
005460 862800	FIRE TRUCKS LEASE-'1	385	385	417.51	55.19	.00	-32.51	108.4%
	TOTAL DEBT SERVICE	40,860	40,860	29,182.85	5,836.57	.00	11,677.15	71.4%
	TOTAL H.M.F.P.FUND-CAPITAL LEASES	40,860	40,860	29,182.85	5,836.57	.00	11,677.15	71.4%

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	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL HATT.MUNICIPAL FIRE PROTECT	65,860	801,500	103,425.85	7,476.57	684,159.55	13,914.60	98.3%
TOTAL EXPENSES	65,860	801,500	103,425.85	7,476.57	684,159.55	13,914.60	
008 SPECIAL STREET IMPR.FUND							
008201 SPEC.ST.IMPR-STREET DIV.							
60 PROFESSIONAL SERVICE							
008201 636000 STREETS & STRUCTURES	497,000	497,000	214,416.90	.00	265,090.69	17,492.41	96.5%
TOTAL PROFESSIONAL SERVICE	497,000	497,000	214,416.90	.00	265,090.69	17,492.41	96.5%
TOTAL SPEC.ST.IMPR-STREET DIV.	497,000	497,000	214,416.90	.00	265,090.69	17,492.41	96.5%
TOTAL SPECIAL STREET IMPR.FUND	497,000	497,000	214,416.90	.00	265,090.69	17,492.41	96.5%
TOTAL EXPENSES	497,000	497,000	214,416.90	.00	265,090.69	17,492.41	
009 WATER & SEWER OPERATION/MAINT.							
009660 W&S O&M-CUSTOMER ACCT. DIV.							
40 PERSONAL SERVICES							
009660 400000 REGULAR WAGES	636,240	636,240	244,982.26	44,036.47	.00	391,257.74	38.5%
009660 430000 OVERTIME	6,000	6,000	2,944.49	492.92	.00	3,055.51	49.1%
009660 460000 STATE RETIREMENT	115,800	115,800	43,515.63	7,817.02	.00	72,284.37	37.6%
009660 470000 F.I.C.A. TAXES	49,200	49,200	18,480.45	3,315.68	.00	30,719.55	37.6%
009660 480000 HOSPITALIZATION INS.	134,400	134,400	45,920.80	13,426.00	.00	88,479.20	34.2%
TOTAL PERSONAL SERVICES	941,640	941,640	355,843.63	69,088.09	.00	585,796.37	37.8%
50 SUPPLIES & EXPENSES							
009660 501000 OTHER EXPENDABLE OFF	6,000	6,000	2,042.23	691.70	166.77	3,791.00	36.8%

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009	WATER & SEWER OPERATION/MAINT.	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
009660 502000	MINOR OFFICE EQUIP/F	26,000	26,000	627.52	.00	.00	25,372.48	2.4%
009660 510000	CLEANING/JANITORIAL	1,500	1,500	816.88	.00	.00	683.12	54.5%
009660 525000	GAS AND OIL	18,000	18,000	3,595.27	1,001.56	.00	14,404.73	20.0%
009660 545000	HAND TOOLS	3,000	3,000	371.52	371.52	.00	2,628.48	12.4%
009660 546000	MINOR EQUIPMENT	4,000	4,000	1,047.00	.00	.00	2,953.00	26.2%
009660 570000	MTR VEHICLE REP. PTS	5,000	5,000	1,173.81	.00	.00	3,826.19	23.5%
	TOTAL SUPPLIES & EXPENSES	63,500	63,500	9,674.23	2,064.78	166.77	53,659.00	15.5%
60 PROFESSIONAL SERVICE								
009660 604900	OTHER PROFESSIONAL S	400,000	400,000	131,656.41	38,316.92	29,513.94	238,829.65	40.3%
009660 606000	TELEPHONE AND TELEGR	5,000	5,000	1,036.46	215.41	.00	3,963.54	20.7%
009660 607000	POSTAGE	94,000	94,000	41,088.78	4,174.77	.00	52,911.22	43.7%
009660 620000	PRINTING	30,000	30,000	12,471.56	1,372.47	.00	17,528.44	41.6%
009660 630000	GAS	1,200	1,200	730.24	365.96	.00	469.76	60.9%
009660 630500	ELECTRICITY	23,000	23,000	3,053.80	496.69	.00	19,946.20	13.3%
009660 638400	MOTOR VEHICLE EQ. R&	11,000	11,000	6,163.82	1,531.50	.00	4,836.18	56.0%
009660 639400	DISINFECT./EXTERMINA	900	900	100.00	.00	.00	800.00	11.1%
009660 643000	UNIFORM RENT	3,000	3,000	1,058.20	133.40	.00	1,941.80	35.3%
009660 683200	BANK SERV/TRF FEE	0	0	3.25	.00	.00	-3.25	100.0%
009660 687000	CUSTODIAL SERVICE	7,300	7,300	2,061.80	358.00	3,320.00	1,918.20	73.7%
009660 699900	SERVICES NOT SPECIFI	3,000	3,000	.00	.00	2,500.00	500.00	83.3%
	TOTAL PROFESSIONAL SERVICE	578,400	578,400	199,424.32	46,965.12	35,333.94	343,641.74	40.6%
70 CAPITAL OUTLAY								
009660 742000	PICK UP TRUCKS	70,000	70,000	65,950.00	65,950.00	.00	4,050.00	94.2%
	TOTAL CAPITAL OUTLAY	70,000	70,000	65,950.00	65,950.00	.00	4,050.00	94.2%
	TOTAL W&S O&M-CUSTOMER ACCT. DIV.	1,653,540	1,653,540	630,892.18	184,067.99	35,500.71	987,147.11	40.3%
009672 W&S O&M-WATER TRANSMISSION DIV								
40 PERSONAL SERVICES								
009672 400000	REGULAR WAGES	790,720	790,720	305,588.08	56,020.00	.00	485,131.92	38.6%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
009672 430000 OVERTIME	45,000	45,000	15,060.29	2,097.22	.00	29,939.71	33.5%
009672 460000 STATE RETIREMENT	150,650	150,650	57,396.13	10,403.02	.00	93,253.87	38.1%
009672 470000 F.I.C.A. TAXES	64,000	64,000	24,123.61	4,365.21	.00	39,876.39	37.7%
009672 480000 HOSPITALIZATION INS.	159,600	159,600	61,087.00	20,217.40	.00	98,513.00	38.3%
TOTAL PERSONAL SERVICES	1,209,970	1,209,970	463,255.11	93,102.85	.00	746,714.89	38.3%
50 SUPPLIES & EXPENSES							
009672 525000 GAS AND OIL	45,000	45,000	106,398.95	4,330.77	.00	-61,398.95	236.4%
009672 525700 DIESEL FUEL	4,000	4,000	316.26	61.19	.00	3,683.74	7.9%
009672 535500 WEARING APPAREL	5,000	5,000	412.56	.00	3,789.17	798.27	84.0%
009672 540000 ASPHALT & ASPHALT PR	20,000	20,000	4,628.80	.00	.00	15,371.20	23.1%
009672 541500 SAND,CLAY,GRVL,FILL	10,000	10,000	9,493.55	.00	.00	506.45	94.9%
009672 545000 HAND TOOLS	7,000	7,000	4,098.65	.00	545.06	2,356.29	66.3%
009672 546000 MINOR EQUIPMENT	3,000	3,000	2,954.03	.00	.00	45.97	98.5%
009672 559000 OTHER OPERATING MATL	2,000	2,000	260.10	.00	.00	1,739.90	13.0%
009672 561000 PLUMBING SUPPLIES	180,000	180,000	48,026.90	12,465.72	5,622.67	126,350.43	29.8%
009672 570000 MTR VEHICLE REP. PTS	30,000	30,000	12,244.20	5,788.51	1,294.79	16,461.01	45.1%
TOTAL SUPPLIES & EXPENSES	306,000	306,000	188,834.00	22,646.19	11,251.69	105,914.31	65.4%
60 PROFESSIONAL SERVICE							
009672 604900 OTHER PROFESSIONAL S	100,000	100,000	30,800.23	3,697.64	.00	69,199.77	30.8%
009672 636000 STREETS & STRUCTURES	2,100,000	2,100,000	2,099,290.28	518,572.17	.00	709.72	100.0%
009672 638400 MOTOR VEHICLE EQ. R&	15,000	15,000	14,425.46	875.00	508.50	66.04	99.6%
009672 638600 CONSTRUCTION EQUIP R	10,000	10,000	8,509.81	.00	171.32	1,318.87	86.8%
009672 639800 TOW IN CHARGES	1,000	1,000	450.00	450.00	.00	550.00	45.0%
009672 643000 UNIFORM RENT	5,000	5,000	4,767.84	.00	.00	232.16	95.4%
TOTAL PROFESSIONAL SERVICE	2,231,000	2,231,000	2,158,243.62	523,594.81	679.82	72,076.56	96.8%
TOTAL W&S O&M-WATER TRANSMISSION	3,746,970	3,746,970	2,810,332.73	639,343.85	11,931.51	924,705.76	75.3%
009673 W&S O&M-WATER PLANT DIVISION							
40 PERSONAL SERVICES							
009673 400000 REGULAR WAGES	345,280	345,280	171,424.32	31,626.19	.00	173,855.68	49.6%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
009673 430000 OVERTIME	35,000	35,000	25,901.80	4,369.69	.00	9,098.20	74.0%
009673 460000 STATE RETIREMENT	68,600	68,600	35,321.38	6,443.27	.00	33,278.62	51.5%
009673 470000 F.I.C.A. TAXES	29,100	29,100	14,785.69	2,691.75	.00	14,314.31	50.8%
009673 480000 HOSPITALIZATION INS.	75,600	75,600	31,874.20	6,615.40	.00	43,725.80	42.2%
TOTAL PERSONAL SERVICES	553,580	553,580	279,307.39	51,746.30	.00	274,272.61	50.5%
50 SUPPLIES & EXPENSES							
009673 501000 OTHER EXPENDABLE OFF	3,000	3,000	291.99	.00	.00	2,708.01	9.7%
009673 510000 CLEANING/JANITORIAL	2,500	2,500	1,175.86	.00	.00	1,324.14	47.0%
009673 513000 CHEMICALS	450,000	450,000	101,646.18	18,998.24	7,900.00	340,453.82	24.3%
009673 525000 GAS AND OIL	7,000	7,000	3,313.80	978.73	.00	3,686.20	47.3%
009673 525700 DIESEL FUEL	7,000	7,000	626.43	.00	.00	6,373.57	8.9%
009673 541500 SAND, CLAY, GRVL, FILL	0	0	197.45	197.45	.00	-197.45	100.0%
009673 546000 MINOR EQUIPMENT	2,000	2,000	1,419.74	1,419.74	.00	580.26	71.0%
009673 559000 OTHER OPERATING MATL	5,000	5,000	50.80	.00	638.70	4,310.50	13.8%
009673 570000 MTR VEHICLE REP. PTS	10,000	10,000	5,929.76	1,090.63	716.18	3,354.06	66.5%
009673 599000 OTHER REPAIR/MAINT.	8,000	8,000	.00	.00	2,895.80	5,104.20	36.2%
TOTAL SUPPLIES & EXPENSES	494,500	494,500	114,652.01	22,684.79	12,150.68	367,697.31	25.6%
60 PROFESSIONAL SERVICE							
009673 604900 OTHER PROFESSIONAL S	600,000	600,000	194,291.41	5,511.87	77,980.41	327,728.18	45.4%
009673 611000 TRAVEL EXPENSE	2,000	2,000	660.44	-105.75	.00	1,339.56	33.0%
009673 630000 GAS	2,000	2,000	100.00	20.00	.00	1,900.00	5.0%
009673 630500 ELECTRICITY	710,000	710,000	400,529.23	108,507.50	.00	309,470.77	56.4%
009673 638200 MINOR EQUIPMENT R&M	4,000	4,000	2,817.00	2,817.00	366.49	816.51	79.6%
009673 638300 GENERATOR R&M	75,000	75,000	25,912.00	5,955.00	19,090.00	29,998.00	60.0%
009673 638400 MOTOR VEHICLE EQ. R&	5,000	5,000	4,684.22	2,021.72	201.35	114.43	97.7%
009673 639400 DISINFECT./EXTERMINA	1,000	1,000	248.00	.00	.00	752.00	24.8%
009673 643000 UNIFORM RENT	3,000	3,000	2,088.40	1,044.20	.00	911.60	69.6%
009673 643500 MOP-MAT-RAG RENT	1,000	1,000	948.81	91.41	.00	51.19	94.9%
009673 684000 DUES AND MEMBERSHIPS	1,000	1,000	150.00	.00	.00	850.00	15.0%
009673 687000 CUSTODIAL SERVICE	6,560	6,560	2,661.69	892.00	3,156.31	742.00	88.7%
TOTAL PROFESSIONAL SERVICE	1,410,560	1,410,560	635,091.20	126,754.95	100,794.56	674,674.24	52.2%
TOTAL W&S O&M-WATER PLANT DIVISIO	2,458,640	2,458,640	1,029,050.60	201,186.04	112,945.24	1,316,644.16	46.4%

009676 W&S O&M-SEWER DIVISION

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
40 PERSONAL SERVICES							
009676 400000 REGULAR WAGES	231,880	231,880	115,625.90	19,370.22	.00	116,254.10	49.9%
009676 430000 OVERTIME	30,000	30,000	14,067.06	3,236.78	.00	15,932.94	46.9%
009676 460000 STATE RETIREMENT	47,300	47,300	23,215.08	4,046.65	.00	24,084.92	49.1%
009676 470000 F.I.C.A. TAXES	20,100	20,100	9,795.41	1,706.49	.00	10,304.59	48.7%
009676 480000 HOSPITALIZATION INS.	50,400	50,400	22,853.20	4,209.80	.00	27,546.80	45.3%
TOTAL PERSONAL SERVICES	379,680	379,680	185,556.65	32,569.94	.00	194,123.35	48.9%
50 SUPPLIES & EXPENSES							
009676 513000 CHEMICALS	165,000	165,000	128,918.30	26,985.00	.00	36,081.70	78.1%
009676 525000 GAS AND OIL	10,000	10,000	656.14	192.88	.00	9,343.86	6.6%
009676 525700 DIESEL FUEL	15,000	15,000	1,586.61	769.25	.00	13,413.39	10.6%
009676 535500 WEARING APPAREL	3,000	3,000	.00	.00	136.42	2,863.58	4.5%
009676 541500 SAND,CLAY,GRVL,FILL	20,000	20,000	5,768.40	3,941.30	4,950.00	9,281.60	53.6%
009676 545000 HAND TOOLS	6,500	6,500	54.85	54.85	745.00	5,700.15	12.3%
009676 546000 MINOR EQUIPMENT	5,000	5,000	1,017.26	533.33	3,958.75	23.99	99.5%
009676 559000 OTHER OPERATING MATL	7,000	7,000	949.20	409.20	.00	6,050.80	13.6%
009676 561000 PLUMBING SUPPLIES	30,000	30,000	7,149.52	433.19	.00	22,850.48	23.8%
009676 570000 MTR VEHICLE REP. PTS	25,000	25,000	4,715.62	452.93	.00	20,284.38	18.9%
TOTAL SUPPLIES & EXPENSES	286,500	286,500	150,815.90	33,771.93	9,790.17	125,893.93	56.1%
60 PROFESSIONAL SERVICE							
009676 606000 TELEPHONE AND TELEGR	6,000	6,000	5,604.46	1,410.01	.00	395.54	93.4%
009676 612000 FREIGHT	600	600	75.00	.00	.00	525.00	12.5%
009676 630500 ELECTRICITY	100,000	100,000	39,345.34	9,217.25	.00	60,654.66	39.3%
009676 636000 STREETS & STRUCTURES	2,345,000	2,345,000	1,949,031.79	467,869.57	.00	395,968.21	83.1%
009676 638400 MOTOR VEHICLE EQ. R&	35,000	35,000	26,645.32	10,621.19	1,622.89	6,731.79	80.8%
009676 638600 CONSTRUCTION EQUIP R	20,000	20,000	3,949.16	240.82	1,038.84	15,012.00	24.9%
009676 639800 TOW IN CHARGES	2,000	2,000	350.00	350.00	.00	1,650.00	17.5%
TOTAL PROFESSIONAL SERVICE	2,508,600	2,508,600	2,025,001.07	489,708.84	2,661.73	480,937.20	80.8%
TOTAL W&S O&M-SEWER DIVISION	3,174,780	3,174,780	2,361,373.62	556,050.71	12,451.90	800,954.48	74.8%

009677 W&S O&M-SEWER LAGOON DIV.**40 PERSONAL SERVICES**

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
009677 400000 REGULAR WAGES	392,200	392,200	102,506.08	16,917.68	.00	289,693.92	26.1%
009677 430000 OVERTIME	25,000	25,000	16,504.22	4,451.14	.00	8,495.78	66.0%
009677 460000 STATE RETIREMENT	75,200	75,200	21,302.89	3,825.02	.00	53,897.11	28.3%
009677 470000 F.I.C.A. TAXES	32,000	32,000	8,729.71	1,577.79	.00	23,270.29	27.3%
009677 480000 HOSPITALIZATION INS.	84,000	84,000	27,213.66	13,077.05	.00	56,786.34	32.4%
TOTAL PERSONAL SERVICES	608,400	608,400	176,256.56	39,848.68	.00	432,143.44	29.0%
50 SUPPLIES & EXPENSES							
009677 513000 CHEMICALS	160,000	160,000	76,740.63	19,719.66	21,097.98	62,161.39	61.1%
009677 525000 GAS AND OIL	10,000	10,000	518.92	.00	.00	9,481.08	5.2%
009677 525700 DIESEL FUEL	5,000	5,000	90.23	.00	.00	4,909.77	1.8%
TOTAL SUPPLIES & EXPENSES	175,000	175,000	77,349.78	19,719.66	21,097.98	76,552.24	56.3%
60 PROFESSIONAL SERVICE							
009677 602500 LEGAL	100,000	100,000	16,081.00	4,720.00	.00	83,919.00	16.1%
009677 604900 OTHER PROFESSIONAL S	85,000	85,000	47,504.64	34,064.01	.00	37,495.36	55.9%
009677 630500 ELECTRICITY	770,000	770,000	273,414.52	64,452.81	.00	496,585.48	35.5%
009677 638000 FIXED EQUIPMENT R&M	1,270,000	1,270,000	561,728.58	130,014.27	.00	708,271.42	44.2%
009677 639400 DISINFECT./EXTERMINA	600	600	208.00	.00	.00	392.00	34.7%
TOTAL PROFESSIONAL SERVICE	2,225,600	2,225,600	898,936.74	233,251.09	.00	1,326,663.26	40.4%
TOTAL W&S O&M-SEWER LAGOON DIV.	3,009,000	3,009,000	1,152,543.08	292,819.43	21,097.98	1,835,358.94	39.0%
TOTAL WATER & SEWER OPERATION/MAI	14,042,930	14,042,930	7,984,192.21	1,873,468.02	193,927.34	5,864,810.45	58.2%
TOTAL EXPENSES	14,042,930	14,042,930	7,984,192.21	1,873,468.02	193,927.34	5,864,810.45	
010 WATER & SEWER B & I							
010451 W&S B&I-REVENUE OBLIGATIONS							
60 PROFESSIONAL SERVICE							
010451 604900 OTHER PROFESSIONAL S	0	0	15.00	15.00	.00	-15.00	100.0%

EXPENDITURE REPORT

FOR 2025 05

010	WATER & SEWER B & I	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL PROFESSIONAL SERVICE	0	0	15.00	15.00	.00	-15.00	100.0%
80 DEBT SERVICE								
010451	810000 GENERAL ISSUES-INTER	395,000	395,000	184,409.38	22,229.38	.00	210,590.62	46.7%
010451	811000 REVENUE ISSUES-INTER	750,000	750,000	1,299,750.00	.00	.00	-549,750.00	173.3%
010451	840000 GENERAL ISSUES	8,000	8,000	2,527.50	540.00	.00	5,472.50	31.6%
010451	841000 REVENUE ISSUES	7,000	7,000	1,000.00	1,000.00	.00	6,000.00	14.3%
	TOTAL DEBT SERVICE	1,160,000	1,160,000	1,487,686.88	23,769.38	.00	-327,686.88	128.2%
	TOTAL W&S B&I-REVENUE OBLIGATIONS	1,160,000	1,160,000	1,487,701.88	23,784.38	.00	-327,701.88	128.3%
	TOTAL WATER & SEWER B & I	1,160,000	1,160,000	1,487,701.88	23,784.38	.00	-327,701.88	128.3%
	TOTAL EXPENSES	1,160,000	1,160,000	1,487,701.88	23,784.38	.00	-327,701.88	
011 WATER & SEWER FUND								
011451 WATER & SEWER-REV.OBLIGATN								
80 DEBT SERVICE								
011451	841000 REVENUE ISSUES	15,000	15,000	2,800.00	.00	.00	12,200.00	18.7%
	TOTAL DEBT SERVICE	15,000	15,000	2,800.00	.00	.00	12,200.00	18.7%
	TOTAL WATER & SEWER-REV.OBLIGATN	15,000	15,000	2,800.00	.00	.00	12,200.00	18.7%
011500 WATER & SEWER-TRANSFERS								
90 TRANSFERS								
011500	900009 T/T WATER & SEWER O&	15,000,000	15,000,000	6,250,000.00	2,500,000.00	.00	8,750,000.00	41.7%
011500	900021 T/T 21 REFUNDING	4,560,000	4,560,000	1,900,000.00	760,000.00	.00	2,660,000.00	41.7%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
011500 900075 T/T W & S CONSTRUCTI	5,870,000	5,870,000	1,564,492.92	449,054.23	.00	4,305,507.08	26.7%
011500 9000C T/T WATER & SEWER B&I	1,380,000	1,380,000	575,000.00	230,000.00	.00	805,000.00	41.7%
011500 9000GO T/T 2010 W&S GO BOND	260,000	260,000	112,500.00	45,000.00	.00	147,500.00	43.3%
011500 9000M T/T W&SB&I (METER GO)	0	0	350,000.00	140,000.00	.00	-350,000.00	100.0%
TOTAL TRANSFERS	27,070,000	27,070,000	10,751,992.92	4,124,054.23	.00	16,318,007.08	39.7%
TOTAL WATER & SEWER-TRANSFERS	27,070,000	27,070,000	10,751,992.92	4,124,054.23	.00	16,318,007.08	39.7%
011660 WATER & SEWER-CUST.ACCT.DIV.							
60 PROFESSIONAL SERVICE							
011660 683200 BANK SERV/TRF FEE	0	0	2,079.72	563.89	.00	-2,079.72	100.0%
TOTAL PROFESSIONAL SERVICE	0	0	2,079.72	563.89	.00	-2,079.72	100.0%
TOTAL WATER & SEWER-CUST.ACCT.DIV	0	0	2,079.72	563.89	.00	-2,079.72	100.0%
TOTAL WATER & SEWER FUND	27,085,000	27,085,000	10,756,872.64	4,124,618.12	.00	16,328,127.36	39.7%
TOTAL EXPENSES	27,085,000	27,085,000	10,756,872.64	4,124,618.12	.00	16,328,127.36	
013 CITY B & I							
013450 CITY B&I-GENERAL OBLIGATIONS							
60 PROFESSIONAL SERVICE							
013450 683000 PROP.TAX COLL. FEES	12,000	12,000	4,617.56	954.57	.00	7,382.44	38.5%
013450 683100 PROP.TAX COLL. FEES.	18,000	18,000	12,429.67	8,222.99	.00	5,570.33	69.1%
013450 683200 BANK SERV/TRF FEE	0	0	50.00	.00	.00	-50.00	100.0%
TOTAL PROFESSIONAL SERVICE	30,000	30,000	17,097.23	9,177.56	.00	12,902.77	57.0%
80 DEBT SERVICE							
013450 800000 GENERAL ISSUES-PRINC	635,000	635,000	635,000.00	.00	.00	.00	100.0%

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FOR 2025 05

013	CITY B & I	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
013450	802100	5 YEAR NOTE PRINCIPA	869,178	869,178	869,178.00	.00	.00	100.0%
013450	810000	GENERAL ISSUES-INTER	1,935,000	1,935,000	972,894.02	.00	962,105.98	50.3%
013450	812100	5 YEAR NOTE INTEREST	7,910	7,910	7,931.19	.00	-21.19	100.3%
013450	840000	GENERAL ISSUES	20,000	20,000	4,550.00	.00	15,450.00	22.8%
	TOTAL DEBT SERVICE		3,467,088	3,467,088	2,489,553.21	4,550.00	.00	977,534.79 71.8%
	TOTAL CITY B&I-GENERAL OBLIGATION		3,497,088	3,497,088	2,506,650.44	13,727.56	.00	990,437.56 71.7%
	TOTAL CITY B & I		3,497,088	3,497,088	2,506,650.44	13,727.56	.00	990,437.56 71.7%
	TOTAL EXPENSES		3,497,088	3,497,088	2,506,650.44	13,727.56	.00	990,437.56
014 SCHOOL FUND								
014599 SCHOOL FUND-MISC.CHARGES								
60 PROFESSIONAL SERVICE								
014599	683000	PROP.TAX COLL. FEES	0	0	40,145.70	8,063.82	.00	-40,145.70 100.0%
014599	683100	PROP.TAX COLL. FEES.	0	0	77,581.05	56,956.80	.00	-77,581.05 100.0%
	TOTAL PROFESSIONAL SERVICE		0	0	117,726.75	65,020.62	.00	-117,726.75 100.0%
	TOTAL SCHOOL FUND-MISC.CHARGES		0	0	117,726.75	65,020.62	.00	-117,726.75 100.0%
	TOTAL SCHOOL FUND		0	0	117,726.75	65,020.62	.00	-117,726.75 100.0%
	TOTAL EXPENSES		0	0	117,726.75	65,020.62	.00	-117,726.75
018 POLICE & FIREMAN DIS. & RELIEF								
018701 P&FD&R-TRUST AND AGENCY								
60 PROFESSIONAL SERVICE								
018701	682500	PENSION EXPENSE	0	0	58,726.12	.00	.00	-58,726.12 100.0%
018701	683000	PROP.TAX COLL. FEES	0	0	2,198.24	478.23	.00	-2,198.24 100.0%

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FOR 2025 05

018	POLICE & FIREMAN DIS. & RELIEF	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
018701 683100	PROP.TAX COLL. FEES.	0	0	6,269.55	4,149.71	.00	-6,269.55	100.0%
	TOTAL PROFESSIONAL SERVICE	0	0	67,193.91	4,627.94	.00	-67,193.91	100.0%
	TOTAL P&FD&R-TRUST AND AGENCY	0	0	67,193.91	4,627.94	.00	-67,193.91	100.0%
	TOTAL POLICE & FIREMAN DIS. & REL	0	0	67,193.91	4,627.94	.00	-67,193.91	100.0%
	TOTAL EXPENSES	0	0	67,193.91	4,627.94	.00	-67,193.91	
019 POLICE FORFEITURES FUND								
019100 POL.FORFEITURES-POLICE DIV.								
50 SUPPLIES & EXPENSES								
019100 559000	OTHER OPERATING MATL	0	45,721	.00	.00	5,777.83	39,943.17	12.6%
	TOTAL SUPPLIES & EXPENSES	0	45,721	.00	.00	5,777.83	39,943.17	12.6%
60 PROFESSIONAL SERVICE								
019100 604900	OTHER PROFESSIONAL S	0	30,000	1,025.78	233.06	600.00	28,374.22	5.4%
	TOTAL PROFESSIONAL SERVICE	0	30,000	1,025.78	233.06	600.00	28,374.22	5.4%
	TOTAL POL.FORFEITURES-POLICE DIV.	0	75,721	1,025.78	233.06	6,377.83	68,317.39	9.8%
	TOTAL POLICE FORFEITURES FUND	0	75,721	1,025.78	233.06	6,377.83	68,317.39	9.8%
	TOTAL EXPENSES	0	75,721	1,025.78	233.06	6,377.83	68,317.39	
020 2002 TIF B&I-SOUTHERN POINTE								
020452 2002 TIF B&I-S/P GEN OBLIGA								
80 DEBT SERVICE								
020452 802000	IND/ECON DEV ISSUES-	195,000	195,000	195,000.00	.00	.00	.00	100.0%

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020	2002 TIF B&I-SOUTHERN POINTE	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
020452 812000	IND/ECON DEV ISSUES-	47,409	47,409	26,068.75	.00	.00	21,340.25	55.0%
020452 842000	IND/ECON DEV ISSUES	2,000	2,000	1,250.00	.00	.00	750.00	62.5%
	TOTAL DEBT SERVICE	244,409	244,409	222,318.75	.00	.00	22,090.25	91.0%
	TOTAL 2002 TIF B&I-S/P GEN OBLIGA	244,409	244,409	222,318.75	.00	.00	22,090.25	91.0%
	TOTAL 2002 TIF B&I-SOUTHERN POINT	244,409	244,409	222,318.75	.00	.00	22,090.25	91.0%
	TOTAL EXPENSES	244,409	244,409	222,318.75	.00	.00	22,090.25	
022 2003 TIF B&I-CHAUVET SQUARE								
022452 2003 TIF B&I-C/S GEN OBLIGA								
80 DEBT SERVICE								
022452 802000	IND/ECON DEV ISSUES-	165,000	165,000	165,000.00	165,000.00	.00	.00	100.0%
022452 812000	IND/ECON DEV ISSUES-	23,850	23,850	23,850.00	23,850.00	.00	.00	100.0%
022452 842000	IND/ECON DEV ISSUES	2,500	2,500	1,000.00	1,000.00	.00	1,500.00	40.0%
	TOTAL DEBT SERVICE	191,350	191,350	189,850.00	189,850.00	.00	1,500.00	99.2%
	TOTAL 2003 TIF B&I-C/S GEN OBLIGA	191,350	191,350	189,850.00	189,850.00	.00	1,500.00	99.2%
	TOTAL 2003 TIF B&I-CHAUVET SQUARE	191,350	191,350	189,850.00	189,850.00	.00	1,500.00	99.2%
	TOTAL EXPENSES	191,350	191,350	189,850.00	189,850.00	.00	1,500.00	
023 2006 TIF B&I-TURTLE CROSSING								
023452 2007 TIF B&I-T/C GEN OBLIGA								
80 DEBT SERVICE								
023452 802000	IND/ECON DEV ISSUES-	110,000	110,000	85,000.00	.00	.00	25,000.00	77.3%
023452 812000	IND/ECON DEV ISSUES-	21,770	21,770	20,350.00	.00	.00	1,420.00	93.5%
023452 842000	IND/ECON DEV ISSUES	2,500	2,500	1,250.00	.00	.00	1,250.00	50.0%

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023	2006 TIF B&I-TURTLE CROSSING	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL DEBT SERVICE	134,270	134,270	106,600.00	.00	.00	27,670.00	79.4%
	TOTAL 2007 TIF B&I-T/C GEN OBLIGA	134,270	134,270	106,600.00	.00	.00	27,670.00	79.4%
	TOTAL 2006 TIF B&I-TURTLE CROSSIN	134,270	134,270	106,600.00	.00	.00	27,670.00	79.4%
	TOTAL EXPENSES	134,270	134,270	106,600.00	.00	.00	27,670.00	
026 2016 TIF B&I-WHISPERING PINES								
026452 2016 TIF B&I-WHISP PINES EXPEN								
80 DEBT SERVICE								
026452 812000	IND/ECON DEV ISSUES-	74,623	74,623	37,311.25	.00	.00	37,311.25	50.0%
026452 842000	IND/ECON DEV ISSUES	2,000	2,000	1,940.00	1,940.00	.00	60.00	97.0%
	TOTAL DEBT SERVICE	76,623	76,623	39,251.25	1,940.00	.00	37,371.25	51.2%
	TOTAL 2016 TIF B&I-WHISP PINES EX	76,623	76,623	39,251.25	1,940.00	.00	37,371.25	51.2%
	TOTAL 2016 TIF B&I-WHISPERING PIN	76,623	76,623	39,251.25	1,940.00	.00	37,371.25	51.2%
	TOTAL EXPENSES	76,623	76,623	39,251.25	1,940.00	.00	37,371.25	
027 TAX COLLECTOR'S FUND								
027500 TAX COLLECTOR'S-TRANSFERS								
90 TRANSFERS								
027500 900001	T/T GENERAL FUND	0	0	14,495,520.31	9,183,358.27	.00	-14,495,520.31	100.0%
027500 900002	T/T PARKS & RECREATI	0	0	740,497.67	483,393.49	.00	-740,497.67	100.0%
027500 900004	T/T LIBRARY	0	0	686,041.07	447,436.74	.00	-686,041.07	100.0%
027500 900012	T/T PLANET FITNESS T	0	0	24,894.00	24,894.00	.00	-24,894.00	100.0%
027500 900013	T/T CITY B & I	0	0	1,853,213.56	1,209,769.33	.00	-1,853,213.56	100.0%
027500 900014	T/T SCHOOL FUND	0	0	13,375,088.65	9,384,084.10	.00	-13,375,088.65	100.0%

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027	TAX COLLECTOR'S FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
027500	900018 T/T POL/FIRE DIS./RE	0	0	932,070.89	610,468.90	.00	-932,070.89	100.0%
027500	900020 T/T 2002 TIF B&I-S/P	0	0	65,646.00	65,646.00	.00	-65,646.00	100.0%
027500	900022 T/T 2003 TIF B&I-CHA	0	0	195,000.00	195,000.00	.00	-195,000.00	100.0%
027500	900023 T/T 2007 TIF B&I-T/C	0	0	77,000.00	77,000.00	.00	-77,000.00	100.0%
027500	900026 T/T '16 TIF B&I-WHIS	0	0	171,474.00	171,474.00	.00	-171,474.00	100.0%
027500	900028 T/T 2016 TIF B&I-HBU	0	0	33,878.00	33,878.00	.00	-33,878.00	100.0%
027500	900050 T/T RIDGE AT TURTLE	0	0	89,771.00	89,771.00	.00	-89,771.00	100.0%
027500	900051 T/T MIDTOWN MARKET	0	0	9,969.00	9,969.00	.00	-9,969.00	100.0%
027500	900052 T/T 2019 TIF B&I-ELA	0	0	132,017.00	132,017.00	.00	-132,017.00	100.0%
027500	900073 T/T MASS TRANSIT OPE	0	0	187,093.76	122,134.00	.00	-187,093.76	100.0%
027500	9000EB T/T GENERAL FD-EXCES	0	0	105,645.48	.00	.00	-105,645.48	100.0%
027500	9000IP T/T GENERAL FD-INT/P	0	0	63,589.21	9,985.76	.00	-63,589.21	100.0%
027500	9000SB T/T SCHOOL-1988 SCH.	0	0	1,698,391.30	1,190,932.57	.00	-1,698,391.30	100.0%
	TOTAL TRANSFERS	0	0	34,936,800.90	23,441,212.16	.00	-34,936,800.90	100.0%
	TOTAL TAX COLLECTOR'S-TRANSFERS	0	0	34,936,800.90	23,441,212.16	.00	-34,936,800.90	100.0%
	TOTAL TAX COLLECTOR'S FUND	0	0	34,936,800.90	23,441,212.16	.00	-34,936,800.90	100.0%
	TOTAL EXPENSES	0	0	34,936,800.90	23,441,212.16	.00	-34,936,800.90	
028 2016 TIF B&I-HBRG CLINIC MIDTN								
028452 2016 TIF B&I-HBRG CLINIC MIDTN								
80 DEBT SERVICE								
028452	802000 IND/ECON DEV ISSUES-	57,000	57,000	57,000.00	.00	.00	.00	100.0%
028452	812000 IND/ECON DEV ISSUES-	18,286	18,286	18,285.12	.00	.00	.88	100.0%
	TOTAL DEBT SERVICE	75,286	75,286	75,285.12	.00	.00	.88	100.0%
	TOTAL 2016 TIF B&I-HBRG CLINIC MI	75,286	75,286	75,285.12	.00	.00	.88	100.0%
	TOTAL 2016 TIF B&I-HBRG CLINIC MI	75,286	75,286	75,285.12	.00	.00	.88	100.0%
	TOTAL EXPENSES	75,286	75,286	75,285.12	.00	.00	.88	

039 AIRPORT IMPROVEMENT FUND

039551 AIRPORT IMPR.-AIRPORT DIV

70 CAPITAL OUTLAY

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039	AIRPORT IMPROVEMENT FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
039551	729502 AIRPORT IMP-FAA	1,116,274	1,116,274	177,737.48	.00	.00	938,536.52	15.9%
	TOTAL CAPITAL OUTLAY	1,116,274	1,116,274	177,737.48	.00	.00	938,536.52	15.9%
	TOTAL AIRPORT IMPR.-AIRPORT DIV	1,116,274	1,116,274	177,737.48	.00	.00	938,536.52	15.9%
	TOTAL AIRPORT IMPROVEMENT FUND	1,116,274	1,116,274	177,737.48	.00	.00	938,536.52	15.9%
	TOTAL EXPENSES	1,116,274	1,116,274	177,737.48	.00	.00	938,536.52	
050 2015A TIF B&I-RIDGE/TURTLE CRK								
050452 2015A TIF B&I-RIDGE/TURTLE CRK								
80 DEBT SERVICE								
050452	802000 IND/ECON DEV ISSUES-	84,000	84,000	84,000.00	.00	.00	.00	100.0%
050452	812000 IND/ECON DEV ISSUES-	35,695	35,695	19,002.50	.00	.00	16,692.50	53.2%
050452	842000 IND/ECON DEV ISSUES	2,000	2,000	1,940.00	1,940.00	.00	60.00	97.0%
	TOTAL DEBT SERVICE	121,695	121,695	104,942.50	1,940.00	.00	16,752.50	86.2%
	TOTAL 2015A TIF B&I-RIDGE/TURTLE	121,695	121,695	104,942.50	1,940.00	.00	16,752.50	86.2%
	TOTAL 2015A TIF B&I-RIDGE/TURTLE	121,695	121,695	104,942.50	1,940.00	.00	16,752.50	86.2%
	TOTAL EXPENSES	121,695	121,695	104,942.50	1,940.00	.00	16,752.50	
051 2015B TIF B&I-MIDTOWN MARKET								
051452 2015B TIF B&I-MIDTOWN MARKET								
60 PROFESSIONAL SERVICE								
051452	683200 BANK SERV/TRF FEE	0	0	.25	.25	.00	-.25	100.0%
	TOTAL PROFESSIONAL SERVICE	0	0	.25	.25	.00	-.25	100.0%

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051	2015B TIF B&I-MIDTOWN MARKET	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
80 DEBT SERVICE								
051452	802000 IND/ECON DEV ISSUES-	14,000	14,000	14,000.00	.00	.00	.00	100.0%
051452	812000 IND/ECON DEV ISSUES-	6,160	6,160	3,272.50	.00	.00	2,887.50	53.1%
051452	842000 IND/ECON DEV ISSUES	2,000	2,000	1,940.00	1,940.00	.00	60.00	97.0%
	TOTAL DEBT SERVICE	22,160	22,160	19,212.50	1,940.00	.00	2,947.50	86.7%
	TOTAL 2015B TIF B&I-MIDTOWN MARKE	22,160	22,160	19,212.75	1,940.25	.00	2,947.25	86.7%
	TOTAL 2015B TIF B&I-MIDTOWN MARKE	22,160	22,160	19,212.75	1,940.25	.00	2,947.25	86.7%
	TOTAL EXPENSES	22,160	22,160	19,212.75	1,940.25	.00	2,947.25	
072 MUNICIPAL ROAD & BRIDGE								
072201 MUN.ROAD&BRIDGE-STREET DIV								
60 PROFESSIONAL SERVICE								
072201	601500 ENGINEERING	60,000	55,000	11,322.66	.00	.00	43,677.34	20.6%
072201	601502 ENGINEERING-MIDTOWN	0	5,000	4,904.08	.00	.00	95.92	98.1%
072201	636000 STREETS & STRUCTURES	1,240,000	1,240,000	864,081.78	.00	309,550.00	66,368.22	94.6%
	TOTAL PROFESSIONAL SERVICE	1,300,000	1,300,000	880,308.52	.00	309,550.00	110,141.48	91.5%
70 CAPITAL OUTLAY								
072201	722504 4TH ST-38TH-34TH SDW	0	3,000	3,000.00	.00	.00	.00	100.0%
072201	722522 GORDONS CREEK COMMON	251,000	251,000	4,862.40	.00	.00	246,137.60	1.9%
072201	729552 MIDTOWN STREETSCAPES	6,100,000	6,136,279	6,136,279.00	.00	.00	.00	100.0%
	TOTAL CAPITAL OUTLAY	6,351,000	6,390,279	6,144,141.40	.00	.00	246,137.60	96.1%
	TOTAL MUN.ROAD&BRIDGE-STREET DIV	7,651,000	7,690,279	7,024,449.92	.00	309,550.00	356,279.08	95.4%
	TOTAL MUNICIPAL ROAD & BRIDGE	7,651,000	7,690,279	7,024,449.92	.00	309,550.00	356,279.08	95.4%
	TOTAL EXPENSES	7,651,000	7,690,279	7,024,449.92	.00	309,550.00	356,279.08	

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073	MASS TRANSIT FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
073 MASS TRANSIT FUND								
073570 MASS TRANSIT-TRANSPORTATION								
40 PERSONAL SERVICES								
073570 400000	REGULAR WAGES	989,200	989,200	405,895.13	75,996.85	.00	583,304.87	41.0%
073570 430000	OVERTIME	65,000	65,000	30,592.65	4,971.43	.00	34,407.35	47.1%
073570 460000	STATE RETIREMENT	190,100	190,100	78,131.40	14,493.32	.00	111,968.60	41.1%
073570 470000	F.I.C.A. TAXES	80,700	80,700	32,837.87	6,090.66	.00	47,862.13	40.7%
073570 480000	HOSPITALIZATION INS.	201,600	201,600	83,857.10	29,433.60	.00	117,742.90	41.6%
TOTAL PERSONAL SERVICES		1,526,600	1,526,600	631,314.15	130,985.86	.00	895,285.85	41.4%
50 SUPPLIES & EXPENSES								
073570 500300	PAPER	500	500	19.19	.00	.00	480.81	3.8%
073570 500500	PRINTED FORMS	100	100	99.76	.00	.00	.24	99.8%
073570 501000	OTHER EXPENDABLE OFF	1,500	1,500	787.66	.00	635.00	77.34	94.8%
073570 502000	MINOR OFFICE EQUIP/F	5,000	5,000	99.49	.00	1,713.31	3,187.20	36.3%
073570 508000	COMPUTER SUPPLIES	2,500	2,500	2,182.96	565.00	.00	317.04	87.3%
073570 510000	CLEANING/JANITORIAL	3,000	3,000	231.62	.00	2,198.45	569.93	81.0%
073570 511100	SUPPLIES - COVID 19	0	0	157.24	.00	.00	-157.24	100.0%
073570 511500	FOOD	200	200	191.84	.00	.00	8.16	95.9%
073570 525000	GAS AND OIL	73,000	73,000	17,948.58	8,155.25	3,146.64	51,904.78	28.9%
073570 525700	DIESEL FUEL	64,000	64,000	24,844.96	4,868.11	.00	39,155.04	38.8%
073570 535500	WEARING APPAREL	2,000	2,000	.00	.00	29.24	1,970.76	1.5%
073570 545000	HAND TOOLS	6,000	3,000	.00	.00	62.57	2,937.43	2.1%
073570 546000	MINOR EQUIPMENT	6,000	9,000	6,991.31	96.07	.00	2,008.69	77.7%
073570 559000	OTHER OPERATING MATL	700	700	102.35	.00	195.48	402.17	42.5%
073570 570000	MTR VEHICLE REP. PTS	2,500	2,500	2,351.50	.00	.00	148.50	94.1%
073570 571001	REPAIR PARTS - FIXED	60,000	60,000	14,391.88	4,201.95	20,207.39	25,400.73	57.7%
073570 571002	REPAIR PARTS - PARAT	15,000	15,000	1,444.78	1,118.78	2,455.36	11,099.86	26.0%
073570 599000	OTHER REPAIR/MAINT.	3,000	3,000	475.01	475.01	2,433.43	91.56	96.9%
TOTAL SUPPLIES & EXPENSES		245,000	245,000	72,320.13	19,480.17	33,076.87	139,603.00	43.0%
60 PROFESSIONAL SERVICE								
073570 602000	CONSULTANT SERV/SURV	45,375	25,375	2,664.00	1,603.00	.00	22,711.00	10.5%

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073	MASS TRANSIT FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED	
073570	604900	OTHER PROFESSIONAL S	5,000	5,000	.00	.00	443.93	4,556.07	8.9%
073570	606000	TELEPHONE AND TELEGR	6,500	6,500	3,710.72	828.99	.00	2,789.28	57.1%
073570	609900	OTHER COMMUNICATION	20,200	20,200	.00	.00	4,471.85	15,728.15	22.1%
073570	612000	FREIGHT	1,000	1,000	45.22	.00	.00	954.78	4.5%
073570	620000	PRINTING	3,000	3,000	300.00	.00	.00	2,700.00	10.0%
073570	630500	ELECTRICITY	19,000	19,000	10,761.36	2,811.64	.00	8,238.64	56.6%
073570	638400	MOTOR VEHICLE EQ. R&	2,000	2,000	1,772.14	.00	.00	227.86	88.6%
073570	638501	BUS EQUIP R&M-FIXED	90,000	90,000	45,179.55	5,452.34	21,446.48	23,373.97	74.0%
073570	638502	BUS EQUIP R&M-PARATR	30,000	30,000	1,214.50	.00	.00	28,785.50	4.0%
073570	639000	COMMUNICATION EQ. R&	2,500	2,500	142.55	142.55	.00	2,357.45	5.7%
073570	639400	DISINFECT./EXTERMINA	250	250	143.62	.00	.00	106.38	57.4%
073570	639800	TOW IN CHARGES	2,000	2,000	1,150.00	350.00	.00	850.00	57.5%
073570	639900	OTHER REPAIRS AND MA	2,500	22,500	9,260.06	.00	5,556.83	7,683.11	65.9%
073570	643000	UNIFORM RENT	11,500	11,500	3,721.75	871.88	.00	7,778.25	32.4%
073570	683000	PROP.TAX COLL. FEES	750	750	466.16	96.37	.00	283.84	62.2%
073570	683100	PROP.TAX COLL. FEES.	1,500	1,500	1,254.82	830.17	.00	245.18	83.7%
073570	687000	CUSTODIAL SERVICE	4,500	4,500	1,907.80	325.00	3,074.00	-481.80	110.7%
TOTAL PROFESSIONAL SERVICE			247,575	247,575	83,694.25	13,311.94	34,993.09	128,887.66	47.9%
70 CAPITAL OUTLAY									
073570	729553	BUS SHELTER INFRAS-5	3,082,962	3,082,962	418,169.00	.00	.00	2,664,793.00	13.6%
073570	733600	SURVEILLANCE/SECURITY	7,760	7,760	.00	.00	750.00	7,010.00	9.7%
TOTAL CAPITAL OUTLAY			3,090,722	3,090,722	418,169.00	.00	750.00	2,671,803.00	13.6%
TOTAL MASS TRANSIT-TRANSPORTATION			5,109,897	5,109,897	1,205,497.53	163,777.97	68,819.96	3,835,579.51	24.9%
TOTAL MASS TRANSIT FUND			5,109,897	5,109,897	1,205,497.53	163,777.97	68,819.96	3,835,579.51	24.9%
TOTAL EXPENSES			5,109,897	5,109,897	1,205,497.53	163,777.97	68,819.96	3,835,579.51	
075 WATER&SEWER CONSTRUCTION FUND									
075695 W&S CONSTR.-CAPITAL PROJECTS									
60 PROFESSIONAL SERVICE									
075695	601500	ENGINEERING	2,000,000	1,972,003	591,936.11	156,613.50	.00	1,380,066.39	30.0%

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075	WATER&SEWER CONSTRUCTION FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
075695 601503	ENGINEERING-MCWI	0	27,998	27,997.50	5,655.00	.00	.00	100.0%
	TOTAL PROFESSIONAL SERVICE	2,000,000	2,000,000	619,933.61	162,268.50	.00	1,380,066.39	31.0%
70 CAPITAL OUTLAY								
075695 722099	PROGRAMMED SEWER PRO	6,000,000	5,951,660	755,485.62	.00	.00	5,196,174.38	12.7%
075695 724501	ARCADIA SUNSET	0	17,610	17,610.00	5,967.50	.00	.00	100.0%
075695 724502	PIPELINE ROAD	0	28,000	.00	.00	28,000.00	.00	100.0%
075695 729570	SRF WTR PLT #1 REHAB	0	2,730	2,730.00	.00	.00	.00	100.0%
	TOTAL CAPITAL OUTLAY	6,000,000	6,000,000	775,825.62	5,967.50	28,000.00	5,196,174.38	13.4%
	TOTAL W&S CONSTR.-CAPITAL PROJECT	8,000,000	8,000,000	1,395,759.23	168,236.00	28,000.00	6,576,240.77	17.8%
	TOTAL WATER&SEWER CONSTRUCTION FU	8,000,000	8,000,000	1,395,759.23	168,236.00	28,000.00	6,576,240.77	17.8%
	TOTAL EXPENSES	8,000,000	8,000,000	1,395,759.23	168,236.00	28,000.00	6,576,240.77	
077 COMMUNITY CENTERS' FUND								
077650 COMMUNITY CTR-ADMIN/GENERAL								
40 PERSONAL SERVICES								
077650 400000	REGULAR WAGES	415,600	415,600	136,409.80	26,897.36	.00	279,190.20	32.8%
077650 430000	OVERTIME	11,000	11,000	9,355.30	1,533.76	.00	1,644.70	85.0%
077650 460000	STATE RETIREMENT	77,000	77,000	26,091.88	5,089.17	.00	50,908.12	33.9%
077650 470000	F.I.C.A. TAXES	32,700	32,700	10,820.28	2,109.15	.00	21,879.72	33.1%
077650 480000	HOSPITALIZATION INS.	100,800	100,800	37,063.00	15,412.60	.00	63,737.00	36.8%
	TOTAL PERSONAL SERVICES	637,100	637,100	219,740.26	51,042.04	.00	417,359.74	34.5%
50 SUPPLIES & EXPENSES								
077650 501000	OTHER EXPENDABLE OFF	500	500	44.00	.00	.00	456.00	8.8%
077650 510000	CLEANING/JANITORIAL	15,000	15,000	5,538.89	802.92	1,900.69	7,560.42	49.6%

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077	COMMUNITY CENTERS' FUND		ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
077650	512000	MEDICAL SUPPLIES	250	250	78.51	.00	.00	171.49	31.4%
077650	525000	GAS AND OIL	4,000	4,000	1,102.87	292.90	.00	2,897.13	27.6%
077650	535500	WEARING APPAREL	400	644	243.80	.00	.00	400.00	37.9%
077650	544000	HORT./LANDSCAPING SP	2,250	2,006	338.00	.00	.00	1,668.20	16.8%
077650	546000	MINOR EQUIPMENT	6,500	6,500	3,786.08	.00	80.00	2,633.92	59.5%
077650	559000	OTHER OPERATING MATL	2,000	2,000	46.95	46.95	1,581.62	371.43	81.4%
077650	560000	BUILDING MATERIALS &	2,500	2,500	364.80	364.80	.00	2,135.20	14.6%
077650	560500	ELECTRICAL SUPPLIES	5,000	5,000	350.84	60.84	.00	4,649.16	7.0%
077650	561000	PLUMBING SUPPLIES	3,500	3,500	331.38	.00	.00	3,168.62	9.5%
077650	565000	PAINT AND PAINTING S	800	800	424.70	.00	.00	375.30	53.1%
077650	570000	MTR VEHICLE REP. PTS	2,500	2,500	754.88	94.40	.00	1,745.12	30.2%
TOTAL SUPPLIES & EXPENSES			45,200	45,200	13,405.70	1,662.81	3,562.31	28,231.99	37.5%
60 PROFESSIONAL SERVICE									
077650	604900	OTHER PROFESSIONAL S	18,000	18,000	2,490.14	2,034.24	4,491.50	11,018.36	38.8%
077650	606000	TELEPHONE AND TELEGR	1,000	1,000	308.90	61.84	.00	691.10	30.9%
077650	630000	GAS	25,000	25,000	5,205.75	2,241.32	.00	19,794.25	20.8%
077650	630500	ELECTRICITY	85,000	85,000	41,963.80	9,071.61	.00	43,036.20	49.4%
077650	635000	BUILDING R&M	15,000	15,000	.00	.00	4,134.95	10,865.05	27.6%
077650	635700	PLUMBING EQUIPMENT R	2,000	2,000	536.34	.00	.00	1,463.66	26.8%
077650	638000	FIXED EQUIPMENT R&M	13,150	13,150	4,381.31	768.42	6,670.00	2,098.69	84.0%
077650	638400	MOTOR VEHICLE EQ. R&	3,500	3,500	95.00	.00	.00	3,405.00	2.7%
077650	639200	CLEANING AND PAINTIN	8,000	8,000	4,235.00	.00	.00	3,765.00	52.9%
077650	639400	DISINFECT./EXTERMINA	6,000	6,000	4,455.00	115.00	.00	1,545.00	74.3%
077650	639900	OTHER REPAIRS AND MA	3,000	3,000	875.00	.00	.00	2,125.00	29.2%
077650	643000	UNIFORM RENT	8,000	8,000	2,519.55	227.80	.00	5,480.45	31.5%
077650	699900	SERVICES NOT SPECIFI	1,000	1,000	939.90	.00	.00	60.10	94.0%
TOTAL PROFESSIONAL SERVICE			188,650	188,650	68,005.69	14,520.23	15,296.45	105,347.86	44.2%
70 CAPITAL OUTLAY									
077650	715010	REC CENTER OLD YMCA	20,000	17,700	6,749.09	.00	.00	10,950.91	38.1%
077650	715019	JDS COM CTR(CEILING/	10,000	12,300	9,500.00	9,500.00	.00	2,800.00	77.2%
077650	715021	CE ROY/5TH STREET	7,500	7,500	.00	.00	3,950.00	3,550.00	52.7%
077650	732000	HOUSEHOLD FURN/EQUIP	5,000	5,000	128.25	128.25	.00	4,871.75	2.6%
TOTAL CAPITAL OUTLAY			42,500	42,500	16,377.34	9,628.25	3,950.00	22,172.66	47.8%
TOTAL COMMUNITY CTR-ADMIN/GENERAL			913,450	913,450	317,528.99	76,853.33	22,808.76	573,112.25	37.3%

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077	COMMUNITY CENTERS' FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL COMMUNITY CENTERS' FUND	913,450	913,450	317,528.99	76,853.33	22,808.76	573,112.25	37.3%
	TOTAL EXPENSES	913,450	913,450	317,528.99	76,853.33	22,808.76	573,112.25	
079 COVID FISCAL RECOVERY FUNDS								
079605 COVID FISCAL RECOVERY EXPENSES								
70 CAPITAL OUTLAY								
079605 729567	MLK AVE INFRASTRUCTU	959,798	959,798	567,566.09	.00	.00	392,231.91	59.1%
079605 730100	CRISIS STABILIZATION	0	700,000	700,000.00	.00	.00	.00	100.0%
	TOTAL CAPITAL OUTLAY	959,798	1,659,798	1,267,566.09	.00	.00	392,231.91	76.4%
	TOTAL COVID FISCAL RECOVERY EXPEN	959,798	1,659,798	1,267,566.09	.00	.00	392,231.91	76.4%
	TOTAL COVID FISCAL RECOVERY FUNDS	959,798	1,659,798	1,267,566.09	.00	.00	392,231.91	76.4%
	TOTAL EXPENSES	959,798	1,659,798	1,267,566.09	.00	.00	392,231.91	
082 COMMUNITY DEVELOP. BLOCK GRANT								
082285 CDBG-ENTITLEMENTS								
40 PERSONAL SERVICES								
082285 400000	REGULAR WAGES	200,000	200,000	73,954.28	13,931.77	.00	126,045.72	37.0%
082285 430000	OVERTIME	0	0	1.00	.00	.00	-1.00	100.0%
082285 460000	STATE RETIREMENT	36,100	36,100	13,238.05	2,493.80	.00	22,861.95	36.7%
082285 470000	F.I.C.A. TAXES	15,300	15,300	5,597.49	1,054.66	.00	9,702.51	36.6%
082285 480000	HOSPITALIZATION INS.	42,000	42,000	11,945.45	2,048.74	.00	30,054.55	28.4%
	TOTAL PERSONAL SERVICES	293,400	293,400	104,736.27	19,528.97	.00	188,663.73	35.7%
50 SUPPLIES & EXPENSES								
082285 501000	OTHER EXPENDABLE OFF	1,500	1,500	269.63	180.48	.00	1,230.37	18.0%

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082	COMMUNITY DEVELOP. BLOCK GRANT	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
082285 502000	MINOR OFFICE EQUIP/F	850	850	75.18	75.18	143.49	631.33	25.7%
082285 525000	GAS AND OIL	1,200	1,200	334.46	90.60	.00	865.54	27.9%
082285 535500	WEARING APPAREL	250	250	250.00	.00	.00	.00	100.0%
082285 570000	MTR VEHICLE REP. PTS	2,600	2,600	133.60	.00	23.46	2,442.94	6.0%
TOTAL SUPPLIES & EXPENSES		6,400	6,400	1,062.87	346.26	166.95	5,170.18	19.2%
60 PROFESSIONAL SERVICE								
082285 606000	TELEPHONE AND TELEGR	900	900	196.10	50.03	.00	703.90	21.8%
082285 638400	MOTOR VEHICLE EQ. R&	1,000	1,000	.00	.00	146.74	853.26	14.7%
082285 641000	OFFICE EQUIPMENT REN	2,500	2,500	1,705.84	638.06	.00	794.16	68.2%
TOTAL PROFESSIONAL SERVICE		4,400	4,400	1,901.94	688.09	146.74	2,351.32	46.6%
TOTAL CDBG-ENTITLEMENTS		304,200	304,200	107,701.08	20,563.32	313.69	196,185.23	35.5%
TOTAL COMMUNITY DEVELOP. BLOCK GR		304,200	304,200	107,701.08	20,563.32	313.69	196,185.23	35.5%
TOTAL EXPENSES		304,200	304,200	107,701.08	20,563.32	313.69	196,185.23	
086 SPEC SALES TAX-P&R/UNIV IMPROV								
086300 SPEC SALES TAX/RECREATION MAIN								
40 PERSONAL SERVICES								
086300 400000	REGULAR WAGES	45,000	45,000	19,038.47	3,461.54	.00	25,961.53	42.3%
086300 460000	STATE RETIREMENT	8,200	8,200	3,407.91	619.62	.00	4,792.09	41.6%
086300 470000	F.I.C.A. TAXES	3,450	3,450	1,456.43	264.80	.00	1,993.57	42.2%
TOTAL PERSONAL SERVICES		56,650	56,650	23,902.81	4,345.96	.00	32,747.19	42.2%
70 CAPITAL OUTLAY								
086300 729506	HBURG AMERICAN ARTS	0	578	.00	.00	578.00	.00	100.0%
086300 729508	MIDTOWN PARK	0	296,000	295,970.74	142,431.28	.00	29.26	100.0%

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086	SPEC SALES TAX-P&R/UNIV IMPROV	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
086300 7295PR	CAPITAL PROJECTS	650,000	1,453,422	206,200.60	.00	.00	1,247,221.40	14.2%
	TOTAL CAPITAL OUTLAY	650,000	1,750,000	502,171.34	142,431.28	578.00	1,247,250.66	28.7%
	TOTAL SPEC SALES TAX/RECREATION M	706,650	1,806,650	526,074.15	146,777.24	578.00	1,279,997.85	29.2%
086452 B&I GENERAL OBLIGATION BONDS								
80 DEBT SERVICE								
086452 800000	GENERAL ISSUES-PRINC	1,355,000	1,355,000	1,355,000.00	.00	.00	.00	100.0%
086452 810000	GENERAL ISSUES-INTER	131,600	131,600	78,487.50	.00	.00	53,112.50	59.6%
	TOTAL DEBT SERVICE	1,486,600	1,486,600	1,433,487.50	.00	.00	53,112.50	96.4%
	TOTAL B&I GENERAL OBLIGATION BOND	1,486,600	1,486,600	1,433,487.50	.00	.00	53,112.50	96.4%
086602 SPEC SALES TAX P&R/UNIV IMPROV								
60 PROFESSIONAL SERVICE								
086602 604900	OTHER PROFESSIONAL S	0	0	1,000.00	.00	.00	-1,000.00	100.0%
086602 604901	UNIVERSITY OF SOUTHE	1,850,000	1,850,000	792,540.19	180,356.78	.00	1,057,459.81	42.8%
	TOTAL PROFESSIONAL SERVICE	1,850,000	1,850,000	793,540.19	180,356.78	.00	1,056,459.81	42.9%
	TOTAL SPEC SALES TAX P&R/UNIV IMP	1,850,000	1,850,000	793,540.19	180,356.78	.00	1,056,459.81	42.9%
	TOTAL SPEC SALES TAX-P&R/UNIV IMP	4,043,250	5,143,250	2,753,101.84	327,134.02	578.00	2,389,570.16	53.5%
	TOTAL EXPENSES	4,043,250	5,143,250	2,753,101.84	327,134.02	578.00	2,389,570.16	
087 INDUSTRIAL PARK DEVELOPMENT								
087601 INDUSTRIAL PK-G.O.ACQUISITIONS								
60 PROFESSIONAL SERVICE								
087601 600500	ADMINISTRATIVE FEE	0	0	875.00	.00	.00	-875.00	100.0%

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087	INDUSTRIAL PARK DEVELOPMENT	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
087601 601000	AUDITING AND ACCOUNT	0	0	8,400.00	8,400.00	.00	-8,400.00	100.0%
087601 602001	ECONOMIC DEVELOPMENT	0	0	280,000.00	.00	.00	-280,000.00	100.0%
087601 602500	LEGAL	0	0	5,593.75	1,400.00	.00	-5,593.75	100.0%
	TOTAL PROFESSIONAL SERVICE	0	0	294,868.75	9,800.00	.00	-294,868.75	100.0%
	TOTAL INDUSTRIAL PK-G.O.ACQUISITI	0	0	294,868.75	9,800.00	.00	-294,868.75	100.0%
	TOTAL INDUSTRIAL PARK DEVELOPMENT	0	0	294,868.75	9,800.00	.00	-294,868.75	100.0%
	TOTAL EXPENSES	0	0	294,868.75	9,800.00	.00	-294,868.75	

088 PUBLIC SAFETY/REC CONSTRUCTION

088603 PUBLIC SAFETY/REC CONSTRUCTION

70 CAPITAL OUTLAY

088603 7150PL	PARKING LOT CONSTUCT	0	103,687	103,687.42	.00	.00	.00	100.0%
088603 729501	HALL AVENUE OVERPASS	3,587,500	3,483,813	369,702.25	13,641.05	.00	3,114,110.33	10.6%
088603 729575	GORDONS CRK BANK STA	16,500	16,500	4,881.64	.00	.00	11,618.36	29.6%
	TOTAL CAPITAL OUTLAY	3,604,000	3,604,000	478,271.31	13,641.05	.00	3,125,728.69	13.3%
	TOTAL PUBLIC SAFETY/REC CONSTRUCT	3,604,000	3,604,000	478,271.31	13,641.05	.00	3,125,728.69	13.3%
	TOTAL PUBLIC SAFETY/REC CONSTRUCT	3,604,000	3,604,000	478,271.31	13,641.05	.00	3,125,728.69	13.3%
	TOTAL EXPENSES	3,604,000	3,604,000	478,271.31	13,641.05	.00	3,125,728.69	

091 TIF CONSTRUCTION

091500 TIF CONST-TRANSFERS

90 TRANSFERS

091500 900001	T/T GENERAL FUND	0	0	-827.00	.00	.00	827.00	100.0%
	TOTAL TRANSFERS	0	0	-827.00	.00	.00	827.00	100.0%
	TOTAL TIF CONST-TRANSFERS	0	0	-827.00	.00	.00	827.00	100.0%

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091	TIF CONSTRUCTION	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL TIF CONSTRUCTION	0	0	-827.00	.00	.00	827.00	100.0%
	TOTAL EXPENSES	0	0	-827.00	.00	.00	827.00	
095 2019 FIRE STATION CONSTRUCTION								
095635 2019 FIRE STATION CONSTRUCTION								
70 CAPITAL OUTLAY								
095635 725602	TIMBERTON CONCESSION	0	901,620	615,553.13	.00	.00	286,066.87	68.3%
095635 732000	HOUSEHOLD FURN/EQUIP	0	79,680	79,680.00	.00	.00	.00	100.0%
	TOTAL CAPITAL OUTLAY	0	981,300	695,233.13	.00	.00	286,066.87	70.8%
	TOTAL 2019 FIRE STATION CONSTRUCT	0	981,300	695,233.13	.00	.00	286,066.87	70.8%
	TOTAL 2019 FIRE STATION CONSTRUCT	0	981,300	695,233.13	.00	.00	286,066.87	70.8%
	TOTAL EXPENSES	0	981,300	695,233.13	.00	.00	286,066.87	
097 INFRA IMPROVE-INTRNT SALES TAX								
097201 INFRA IMPROVE-INTRNT SALES TAX								
70 CAPITAL OUTLAY								
097201 729501	HALL AVENUE OVERPASS	0	4,465,000	4,400,247.39	761,705.91	.00	64,752.61	98.5%
	TOTAL CAPITAL OUTLAY	0	4,465,000	4,400,247.39	761,705.91	.00	64,752.61	98.5%
	TOTAL INFRA IMPROVE-INTRNT SALES	0	4,465,000	4,400,247.39	761,705.91	.00	64,752.61	98.5%
	TOTAL INFRA IMPROVE-INTRNT SALES	0	4,465,000	4,400,247.39	761,705.91	.00	64,752.61	98.5%
	TOTAL EXPENSES	0	4,465,000	4,400,247.39	761,705.91	.00	64,752.61	
098 WATER METER BONDS								
098695 WATER METER PROJECTS								

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098	WATER METER BONDS	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
70 CAPITAL OUTLAY								
098695 724200	WATER METERS	7,254,315	7,254,315	5,183,002.34	30,680.00	.00	2,071,312.66	71.4%
	TOTAL CAPITAL OUTLAY	7,254,315	7,254,315	5,183,002.34	30,680.00	.00	2,071,312.66	71.4%
	TOTAL WATER METER PROJECTS	7,254,315	7,254,315	5,183,002.34	30,680.00	.00	2,071,312.66	71.4%
	TOTAL WATER METER BONDS	7,254,315	7,254,315	5,183,002.34	30,680.00	.00	2,071,312.66	71.4%
	TOTAL EXPENSES	7,254,315	7,254,315	5,183,002.34	30,680.00	.00	2,071,312.66	
107 SPECIAL SALES TAX-T&A								
107706 SPEC.SALES TAX-T&A EXPEND.								
60 PROFESSIONAL SERVICE								
107706 604901	TOURISM COMMISSION	0	0	317,224.15	52,221.35	.00	-317,224.15	100.0%
	TOTAL PROFESSIONAL SERVICE	0	0	317,224.15	52,221.35	.00	-317,224.15	100.0%
	TOTAL SPEC.SALES TAX-T&A EXPEND.	0	0	317,224.15	52,221.35	.00	-317,224.15	100.0%
	TOTAL SPECIAL SALES TAX-T&A	0	0	317,224.15	52,221.35	.00	-317,224.15	100.0%
	TOTAL EXPENSES	0	0	317,224.15	52,221.35	.00	-317,224.15	
109 GROUP INSURANCE TRUST FUND								
109704 GROUP INS.TRUST-T&A EXPEND.								
60 PROFESSIONAL SERVICE								
109704 683300	ADMIN PAID	0	0	397,182.75	89,595.91	.00	-397,182.75	100.0%
109704 683400	CLAIMS PAID	0	0	2,213,165.96	472,883.20	.00	-2,213,165.96	100.0%
	TOTAL PROFESSIONAL SERVICE	0	0	2,610,348.71	562,479.11	.00	-2,610,348.71	100.0%
	TOTAL GROUP INS.TRUST-T&A EXPEND.	0	0	2,610,348.71	562,479.11	.00	-2,610,348.71	100.0%

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109	GROUP INSURANCE TRUST FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL GROUP INSURANCE TRUST FUND	0	0	2,610,348.71	562,479.11	.00	-2,610,348.71	100.0%
	TOTAL EXPENSES	0	0	2,610,348.71	562,479.11	.00	-2,610,348.71	
	GRAND TOTAL	149,967,439	168,374,677	119,737,215.83	37,501,543.42	4,383,131.78	44,254,328.95	73.7%

** END OF REPORT - Generated by LISA HANSON **

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EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001 General Fund							
001001 REVENUES							
20 REVENUES							
001001 206500 HOUSING AUTHORITY	-15,000	-15,000	-16,493.42	-16,493.42	.00	1,493.42	110.0%
001001 220100 GAS RETAIL LICENSE F	0	0	-100.00	.00	.00	100.00	100.0%
TOTAL REVENUES	-15,000	-15,000	-16,593.42	-16,493.42	.00	1,593.42	110.6%
22 LICENSES & PERMITS							
001001 220000 PRIVILEGE LICENSES	-140,000	-140,000	-77,513.06	-9,977.80	.00	-62,486.94	55.4%
001001 221100 ELECTRICAL FRANCHISE	-3,100,000	-3,100,000	-1,708,091.24	-242,237.45	.00	-1,391,908.76	55.1%
001001 221200 SOLID WASTE OPER/FRA	-165,000	-165,000	-43,437.67	-13,407.11	.00	-121,562.33	26.3%
001001 221400 FIBER INFRASTRUCTURE	-11,000	-11,000	-8,001.25	.00	.00	-2,998.75	72.7%
001001 221500 GAS FRANCHISE	-215,000	-215,000	-68,506.29	-38,189.63	.00	-146,493.71	31.9%
001001 221800 CSPIRE FIBER-TELEPAK	-3,000	-3,000	-972.38	-487.74	.00	-2,027.62	32.4%
001001 221900 CABLE T.V. FRANCHISE	-275,000	-275,000	-116,547.23	-57,745.06	.00	-158,452.77	42.4%
001001 222100 BUILDING PERMIT/INSP	-520,000	-520,000	-219,920.00	-44,233.00	.00	-300,080.00	42.3%
001001 222300 SIGN PERMIT	-17,500	-17,500	-6,706.00	-2,102.00	.00	-10,794.00	38.3%
001001 222400 LAND CODE ENFORCEMEN	-16,000	-16,000	-9,845.00	-1,760.00	.00	-6,155.00	61.5%
001001 222500 GAS & PLUMBING	-9,000	-9,000	-3,450.00	-650.00	.00	-5,550.00	38.3%
001001 222600 ELECTRICAL INSPECTIO	-10,000	-10,000	-4,440.00	-632.00	.00	-5,560.00	44.4%
001001 222700 DEMOLITION PERMIT	-1,000	-1,000	-500.00	-200.00	.00	-500.00	50.0%
001001 222800 HOUSE MOVING	-1,000	-1,000	-1,650.00	.00	.00	650.00	165.0%
001001 223400 PROPERTY CLEAN-UP CO	-25,000	-25,000	-18,044.99	-6,418.70	.00	-6,955.01	72.2%
001001 223600 WRECKER REGISTRATION	-500	-500	-200.00	-75.00	.00	-300.00	40.0%
001001 223700 BURN OR MISC FIRE PE	-3,000	-3,000	-1,000.00	.00	.00	-2,000.00	33.3%
001001 223800 AMBULANCE PERMIT	-900	-900	-900.00	.00	.00	.00	100.0%
001001 223900 TRANSIENT VENDOR FEE	-2,000	-2,000	-375.00	.00	.00	-1,625.00	18.8%
001001 224500 ZONING CERTIFICATE F	-13,000	-13,000	-3,875.00	-950.00	.00	-9,125.00	29.8%
001001 225600 GOLF CART REGISTRATI	-4,000	-4,000	-1,705.00	-405.00	.00	-2,295.00	42.6%
001001 227004 FOOD TRUCK INSPECTIO	-350	-350	-75.00	.00	.00	-275.00	21.4%
001001 227005 FIRE-PLAN REVIEWS	-7,000	-7,000	-404.00	.00	.00	-6,596.00	5.8%
001001 229000 NSF CHECK FEE	-120	-120	-40.00	.00	.00	-80.00	33.3%
001001 229900 MISC. PERMITS & FEES	-80,000	-80,000	-9,607.00	-272.00	.00	-70,393.00	12.0%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
TOTAL LICENSES & PERMITS	-4,619,370	-4,619,370	-2,305,806.11	-419,742.49	.00	-2,313,563.89	49.9%
23 FEDERAL GRANTS							
001001 230100 HHS.-SAMHSA GRANT	-253,164	-253,164	-67,473.96	-62,856.01	.00	-185,690.04	26.7%
001001 231100 JUST.-BYRNE GRANTS	-19,026	-19,026	-29,376.69	.00	.00	10,350.69	154.4%
001001 231600 JUST.-COPS HIRING RE	-134,230	-134,230	-134,712.88	-23,098.07	.00	482.88	100.4%
001001 232100 HHS-HIDTA NARCOTICS	-10,686	-10,686	-14,670.96	-6,473.68	.00	3,984.96	137.3%
001001 233700 FEMA RELIEF	-2,468,000	-2,468,000	-757,067.90	.00	.00	-1,710,932.10	30.7%
001001 236200 HUD-LEAD HAZARD REDU	-1,343,699	-1,343,699	-175,624.50	-66,990.85	.00	-1,168,074.50	13.1%
TOTAL FEDERAL GRANTS	-4,228,805	-4,228,805	-1,178,926.89	-159,418.61	.00	-3,049,878.11	27.9%
25 STATE GRANTS							
001001 250500 ARCHIVES & HISTORY	-99,200	-99,200	-33,720.00	-18,000.00	.00	-65,480.00	34.0%
001001 251800 SOLID WASTE GRANT	-75,000	-75,000	-75,000.00	.00	.00	.00	100.0%
001001 252600 STOP VIOLENCE GRANT	-100,000	-100,000	-24,683.97	-3,695.49	.00	-75,316.03	24.7%
001001 2526MC STOP VIOLENCE-MUNI C	-257,633	-257,633	-68,305.55	.00	.00	-189,327.45	26.5%
001001 252700 ALCOHOL INCENTIVE	-40,000	-40,000	-17,282.79	-17,282.79	.00	-22,717.21	43.2%
001001 255527 MDOT-GORDONS CREEK C	0	0	-1,619.62	-1,619.62	.00	1,619.62	100.0%
TOTAL STATE GRANTS	-571,833	-571,833	-220,611.93	-40,597.90	.00	-351,221.07	38.6%
26 STATE-SHARED REVENUE							
001001 260000 GENERAL SALES TAX	-27,750,000	-27,750,000	-11,973,188.51	-2,638,301.60	.00	-15,776,811.49	43.1%
001001 260100 CITY UTILITY TAX	-30,000	-30,000	-7,305.45	-1,312.96	.00	-22,694.55	24.4%
001001 261000 ALCOHOLIC BEV. LICEN	-180,000	-180,000	-84,085.53	-18,985.53	.00	-95,914.47	46.7%
TOTAL STATE-SHARED REVENUE	-27,960,000	-27,960,000	-12,064,579.49	-2,658,600.09	.00	-15,895,420.51	43.1%
27 CITY-CTY SHARED REV							
001001 227001 RESTAURANT INSPECTIO	-4,500	-4,500	-8,100.00	-1,000.00	.00	3,600.00	180.0%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001001 227002 BUSINESS INSPECTION	-50,000	-50,000	-48,693.00	-7,317.00	.00	-1,307.00	97.4%
001001 227003 APARTMENT/HOTEL INSP	-3,000	-3,000	-2,600.00	-1,050.00	.00	-400.00	86.7%
001001 274099 OTHER	-12,822	-12,822	-9,983.00	.00	.00	-2,839.00	77.9%
TOTAL CITY-CTY SHARED REV	-70,322	-70,322	-69,376.00	-9,367.00	.00	-946.00	98.7%
28 PUBLIC SAFETY							
001001 287000 POLICE/FIRE-SPECIAL	-220,000	-220,000	-113,997.50	-21,537.00	.00	-106,002.50	51.8%
001001 288301 DOJ-ORG CRIME DRUG E	0	0	-58,075.80	-9,710.47	.00	58,075.80	100.0%
TOTAL PUBLIC SAFETY	-220,000	-220,000	-172,073.30	-31,247.47	.00	-47,926.70	78.2%
29 STR-SAN CHARGES							
001001 291000 PARKING METERS	-800	-800	-146.65	.00	.00	-653.35	18.3%
001001 295100 RECYCLING PICK UP	-110,000	-110,000	-38,225.09	-15,551.13	.00	-71,774.91	34.8%
001001 296500 RESIDENTL WASTE COLL	-2,050,000	-2,050,000	-1,606,224.72	-596,167.89	.00	-443,775.28	78.4%
TOTAL STR-SAN CHARGES	-2,160,800	-2,160,800	-1,644,596.46	-611,719.02	.00	-516,203.54	76.1%
33 FINES & FORFEITS							
001001 332000 POLICE FINES	-115,000	-115,000	-1,591.42	-889.41	.00	-113,408.58	1.4%
001001 332100 CITY COURT COSTS	-85,000	-85,000	-22,496.19	-4,138.78	.00	-62,503.81	26.5%
001001 332200 CCC-JAIL REIMB.	0	0	-2.58	.00	.00	2.58	100.0%
001001 332700 ANIMAL CONTROL	0	0	-18.14	-6.74	.00	18.14	100.0%
001001 332800 COURT TECHNOLOGY FEE	-170,000	-170,000	-50,186.92	-9,022.78	.00	-119,813.08	29.5%
001001 335000 INTELLISAFE REVENUE	0	0	-166,741.45	-23,935.74	.00	166,741.45	100.0%
TOTAL FINES & FORFEITS	-370,000	-370,000	-241,036.70	-37,993.45	.00	-128,963.30	65.1%
34 MISCELLANEOUS							
001001 340500 CHECKING ACCOUNT INT	-65,000	-65,000	-93,484.28	-514.17	.00	28,484.28	143.8%
001001 341201 TRAIN DEPOT FACILITY	-26,000	-26,000	-7,175.00	-2,625.00	.00	-18,825.00	27.6%

EXPENDITURE REPORT

FOR 2025 05

	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
001001 341207 MERCHANTS	-2,400	-2,400	-400.00	.00	.00	-2,000.00	16.7%
001001 341500 PARKING GARAGE-CIVIC	-12,000	-12,000	-4,545.00	-465.00	.00	-7,455.00	37.9%
001001 341600 PARKING GARAGE-PINE	-12,000	-12,000	-2,055.00	-480.00	.00	-9,945.00	17.1%
001001 341701 MAIN STREET PARKING	-5,000	-5,000	-1,580.00	.00	.00	-3,420.00	31.6%
001001 342000 CEMETERY FEES	-40,000	-40,000	-10,845.00	-3,290.00	.00	-29,155.00	27.1%
001001 345501 CONTR-HISTORIC HBRG	-40,000	-40,000	-30,000.00	.00	.00	-10,000.00	75.0%
001001 347000 CONTRIB. MIDNIGHT ON	-4,000	-4,000	-4,250.00	.00	.00	250.00	106.3%
001001 347500 CONTRIB-COMMUNITY DE	0	0	-500.00	.00	.00	500.00	100.0%
TOTAL MISCELLANEOUS	-206,400	-206,400	-154,834.28	-7,374.17	.00	-51,565.72	75.0%
35 OTHER - MISC							
001001 359000 POLICE DEPT-MISC CHA	-550,000	-550,000	-243,034.23	-48,107.83	.00	-306,965.77	44.2%
TOTAL OTHER - MISC	-550,000	-550,000	-243,034.23	-48,107.83	.00	-306,965.77	44.2%
38 TRANSFERS IN							
001001 380027 T/F TAX COLLECTORS-G	-21,400,000	-21,400,000	-14,495,520.31	-9,183,358.27	.00	-6,904,479.69	67.7%
001001 3800EB T/F TAX COLL-EXCESS	-100,000	-100,000	-105,645.48	.00	.00	5,645.48	105.6%
001001 3800IP T/F TAX COLL-INT/PEN	-300,000	-300,000	-63,589.21	-9,985.76	.00	-236,410.79	21.2%
TOTAL TRANSFERS IN	-21,800,000	-21,800,000	-14,664,755.00	-9,193,344.03	.00	-7,135,245.00	67.3%
39 NON-REVENUE RECEIPTS							
001001 392000 SALE OF REAL ESTATE	0	0	-21,000.00	.00	.00	21,000.00	100.0%
001001 393000 SALE OF CEMETERY LOT	-70,000	-70,000	-21,085.00	-3,075.00	.00	-48,915.00	30.1%
001001 394300 SALE OF SCRAP MATERI	-20,000	-20,000	-462.55	.00	.00	-19,537.45	2.3%
001001 395900 COPIES/RECORDS REQUE	-200	-200	-272.40	.00	.00	72.40	136.2%
001001 396500 REFUND & RECOVERY	-25,000	-25,000	-23,107.58	-1,056.92	.00	-1,892.42	92.4%
001001 396501 OPTOID SETTLEMENT PR	0	0	-6,476.65	.00	.00	6,476.65	100.0%
TOTAL NON-REVENUE RECEIPTS	-115,200	-115,200	-72,404.18	-4,131.92	.00	-42,795.82	62.9%
TOTAL REVENUES	-62,887,730	-62,887,730	-33,048,627.99	-13,238,137.40	.00	-29,839,102.01	52.6%
TOTAL General Fund	-62,887,730	-62,887,730	-33,048,627.99	-13,238,137.40	.00	-29,839,102.01	52.6%
TOTAL REVENUES	-62,887,730	-62,887,730	-33,048,627.99	-13,238,137.40	.00	-29,839,102.01	

EXPENDITURE REPORT

FOR 2025 05

002	PARKS & RECREATION FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
002 PARKS & RECREATION FUND								
002001 PKS/REC FUND REVENUES								
002001	316218 COOKING CLASS	0	0	-70.00	-70.00	.00	70.00	100.0%
	TOTAL UNDEFINED CHAR	0	0	-70.00	-70.00	.00	70.00	100.0%
25 STATE GRANTS								
002001	259900 MISC OTHER GRANTS	0	0	-1,750.00	.00	.00	1,750.00	100.0%
	TOTAL STATE GRANTS	0	0	-1,750.00	.00	.00	1,750.00	100.0%
30 MISCELLANEOUS								
002001	315000 BALLFIELD USE FEES	-1,500	-1,500	-250.00	.00	.00	-1,250.00	16.7%
002001	315100 PARKS-MISC USE FEES	-8,300	-8,300	-1,601.00	-541.00	.00	-6,699.00	19.3%
002001	315900 PROCESSING FEE	-1,300	-1,300	-150.00	.00	.00	-1,150.00	11.5%
002001	316002 LITTLE TIGERS BASKET	-4,000	-4,000	-500.00	.00	.00	-3,500.00	12.5%
002001	316202 ADULT BASKETBALL	-4,000	-4,000	-2,350.00	-1,500.00	.00	-1,650.00	58.8%
002001	316203 ADULT CO-ED SOFTBALL	-2,000	-2,000	-1,275.00	-825.00	.00	-725.00	63.8%
002001	316204 ADULT MEN'S SOFTBALL	-5,000	-5,000	-300.00	.00	.00	-4,700.00	6.0%
002001	316206 ADULT FOOTBALL	0	0	-350.00	-350.00	.00	350.00	100.0%
002001	316208 ADULT SOCCER	0	0	-75.00	.00	.00	75.00	100.0%
002001	316216 OUTDOOR ADVENTURES	0	0	-280.00	.00	.00	280.00	100.0%
002001	317000 CERAMICS CLASS FEES	-2,250	-2,250	-1,750.00	-250.00	.00	-500.00	77.8%
002001	317800 DRAMA,ART,DANCE LESS	-30,000	-30,000	-21,280.00	-3,885.00	.00	-8,720.00	70.9%
	TOTAL MISCELLANEOUS	-58,350	-58,350	-30,161.00	-7,351.00	.00	-28,189.00	51.7%
34 MISCELLANEOUS								
002001	340500 CHECKING ACCOUNT INT	-24,000	-24,000	-8,973.72	-1,988.87	.00	-15,026.28	37.4%
	TOTAL MISCELLANEOUS	-24,000	-24,000	-8,973.72	-1,988.87	.00	-15,026.28	37.4%

EXPENDITURE REPORT

FOR 2025 05

002	PARKS & RECREATION FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
38 TRANSFERS IN								
002001 380001	T/F GENERAL FUND	-2,560,281	-2,560,281	-2,000,000.00	.00	.00	-560,281.00	78.1%
002001 380027	T/F TAX COLLECTORS-G	-1,040,000	-1,040,000	-740,497.67	-483,393.49	.00	-299,502.33	71.2%
	TOTAL TRANSFERS IN	-3,600,281	-3,600,281	-2,740,497.67	-483,393.49	.00	-859,783.33	76.1%
	TOTAL PKS/REC FUND REVENUES	-3,682,631	-3,682,631	-2,781,452.39	-492,803.36	.00	-901,178.61	75.5%
	TOTAL PARKS & RECREATION FUND	-3,682,631	-3,682,631	-2,781,452.39	-492,803.36	.00	-901,178.61	75.5%
	TOTAL REVENUES	-3,682,631	-3,682,631	-2,781,452.39	-492,803.36	.00	-901,178.61	
004 LIBRARY FUND								
004001 LIBRARY FUND REVENUES								
38 TRANSFERS IN								
004001 380027	T/F TAX COLLECTORS-G	0	0	-686,041.07	-447,436.74	.00	686,041.07	100.0%
	TOTAL TRANSFERS IN	0	0	-686,041.07	-447,436.74	.00	686,041.07	100.0%
	TOTAL LIBRARY FUND REVENUES	0	0	-686,041.07	-447,436.74	.00	686,041.07	100.0%
	TOTAL LIBRARY FUND	0	0	-686,041.07	-447,436.74	.00	686,041.07	100.0%
	TOTAL REVENUES	0	0	-686,041.07	-447,436.74	.00	686,041.07	
005 HATT.MUNICIPAL FIRE PROTECTION								
005001 H.M.F.P.FUND REVENUES								
28 PUBLIC SAFETY								
005001 286200	FIRE PROT.SHARE-USM	-96,000	-96,000	-95,652.00	-95,652.00	.00	-348.00	99.6%

EXPENDITURE REPORT

FOR 2025 05

005	HATT.MUNICIPAL FIRE PROTECTION	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL PUBLIC SAFETY	-96,000	-96,000	-95,652.00	-95,652.00	.00	-348.00	99.6%
34 MISCELLANEOUS								
005001	340500 CHECKING ACCOUNT INT	-5,000	-5,000	-2,426.48	-439.32	.00	-2,573.52	48.5%
	TOTAL MISCELLANEOUS	-5,000	-5,000	-2,426.48	-439.32	.00	-2,573.52	48.5%
	TOTAL H.M.F.P.FUND REVENUES	-101,000	-101,000	-98,078.48	-96,091.32	.00	-2,921.52	97.1%
	TOTAL HATT.MUNICIPAL FIRE PROTECT	-101,000	-101,000	-98,078.48	-96,091.32	.00	-2,921.52	97.1%
	TOTAL REVENUES	-101,000	-101,000	-98,078.48	-96,091.32	.00	-2,921.52	
008 SPECIAL STREET IMPR.FUND								
008001 SPEC.ST.IMPR REVENUES								
26 STATE-SHARED REVENUE								
008001	265000 MUNICIPAL AID	-95,000	-95,000	-67,313.16	.00	.00	-27,686.84	70.9%
	TOTAL STATE-SHARED REVENUE	-95,000	-95,000	-67,313.16	.00	.00	-27,686.84	70.9%
34 MISCELLANEOUS								
008001	340500 CHECKING ACCOUNT INT	-2,000	-2,000	-656.15	-68.34	.00	-1,343.85	32.8%
	TOTAL MISCELLANEOUS	-2,000	-2,000	-656.15	-68.34	.00	-1,343.85	32.8%
	TOTAL SPEC.ST.IMPR REVENUES	-97,000	-97,000	-67,969.31	-68.34	.00	-29,030.69	70.1%
	TOTAL SPECIAL STREET IMPR.FUND	-97,000	-97,000	-67,969.31	-68.34	.00	-29,030.69	70.1%
	TOTAL REVENUES	-97,000	-97,000	-67,969.31	-68.34	.00	-29,030.69	
009 WATER & SEWER OPERATION/MAINT.								
009001 W&S O&M REVENUES								

EXPENDITURE REPORT

FOR 2025 05

009	WATER & SEWER OPERATION/MAINT.	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
29 STR-SAN CHARGES								
009001 295500	LAGOON DUMPING	-65,000	-65,000	-25,320.00	-7,530.00	.00	-39,680.00	39.0%
	TOTAL STR-SAN CHARGES	-65,000	-65,000	-25,320.00	-7,530.00	.00	-39,680.00	39.0%
34 MISCELLANEOUS								
009001 340500	CHECKING ACCOUNT INT	-2,000	-2,000	-295.78	-39.88	.00	-1,704.22	14.8%
	TOTAL MISCELLANEOUS	-2,000	-2,000	-295.78	-39.88	.00	-1,704.22	14.8%
38 TRANSFERS IN								
009001 380011	T/F WATER & SEWER	-15,000,000	-15,000,000	-6,250,000.00	-2,500,000.00	.00	-8,750,000.00	41.7%
	TOTAL TRANSFERS IN	-15,000,000	-15,000,000	-6,250,000.00	-2,500,000.00	.00	-8,750,000.00	41.7%
39 NON-REVENUE RECEIPTS								
009001 394300	SALE OF SCRAP MATERI	-3,500	-3,500	-24,248.40	-2,560.00	.00	20,748.40	692.8%
009001 396500	REFUND & RECOVERY	0	0	-277.48	.00	.00	277.48	100.0%
009001 396700	RECOVERY OF DAMAGE C	0	0	-986.96	.00	.00	986.96	100.0%
	TOTAL NON-REVENUE RECEIPTS	-3,500	-3,500	-25,512.84	-2,560.00	.00	22,012.84	728.9%
	TOTAL W&S O&M REVENUES	-15,070,500	-15,070,500	-6,301,128.62	-2,510,129.88	.00	-8,769,371.38	41.8%
	TOTAL WATER & SEWER OPERATION/MAI	-15,070,500	-15,070,500	-6,301,128.62	-2,510,129.88	.00	-8,769,371.38	41.8%
	TOTAL REVENUES	-15,070,500	-15,070,500	-6,301,128.62	-2,510,129.88	.00	-8,769,371.38	
010 WATER & SEWER B & I								
010001 W&S B&I REVENUES								
34 MISCELLANEOUS								

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010	WATER & SEWER B & I	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
010001 340500	CHECKING ACCOUNT INT	-150,000	-150,000	-75,502.96	-10,821.67	.00	-74,497.04	50.3%
010001 340700	OTHER INTEREST	0	0	-21,513.60	.00	.00	21,513.60	100.0%
	TOTAL MISCELLANEOUS	-150,000	-150,000	-97,016.56	-10,821.67	.00	-52,983.44	64.7%
38 TRANSFERS IN								
010001 380021	T/F 21 REFUNDING	-4,560,000	-4,560,000	-1,900,000.00	-760,000.00	.00	-2,660,000.00	41.7%
010001 3800C	T/F WATER & SEWER '13	-1,380,000	-1,380,000	-575,000.00	-230,000.00	.00	-805,000.00	41.7%
010001 3800GO	T/F '10 W&S GO BONDS	-270,000	-270,000	-112,500.00	-45,000.00	.00	-157,500.00	41.7%
010001 3800M	T/F WTR/SWR(METER GO)	-840,000	-840,000	-350,000.00	-140,000.00	.00	-490,000.00	41.7%
	TOTAL TRANSFERS IN	-7,050,000	-7,050,000	-2,937,500.00	-1,175,000.00	.00	-4,112,500.00	41.7%
	TOTAL W&S B&I REVENUES	-7,200,000	-7,200,000	-3,034,516.56	-1,185,821.67	.00	-4,165,483.44	42.1%
	TOTAL WATER & SEWER B & I	-7,200,000	-7,200,000	-3,034,516.56	-1,185,821.67	.00	-4,165,483.44	42.1%
	TOTAL REVENUES	-7,200,000	-7,200,000	-3,034,516.56	-1,185,821.67	.00	-4,165,483.44	
011 WATER & SEWER FUND								
011001 WATER & SEWER REVENUES								
22 LICENSES & PERMITS								
011001 229000	NSF CHECK FEE	-4,000	-4,000	-2,854.81	-363.47	.00	-1,145.19	71.4%
	TOTAL LICENSES & PERMITS	-4,000	-4,000	-2,854.81	-363.47	.00	-1,145.19	71.4%
30 MISCELLANEOUS								
011001 360001	RESIDENTIAL WATER-NO	-8,140,000	-8,140,000	-3,234,228.61	-603,141.29	.00	-4,905,771.39	39.7%
011001 360002	TAXABLE WATER SALES	-4,850,000	-4,850,000	-2,166,109.37	-383,726.73	.00	-2,683,890.63	44.7%
011001 360011	NON-RESIDENTIAL WATE	-1,400,000	-1,400,000	-636,367.29	-81,144.14	.00	-763,632.71	45.5%
011001 361000	TAPS	-190,000	-190,000	-91,205.29	-56,016.09	.00	-98,794.71	48.0%

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011	WATER & SEWER FUND		ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
011001	362000	WATER TURN-ON FEE	-70,000	-70,000	-40,871.08	-8,157.31	.00	-29,128.92	58.4%
011001	362500	SEWER TAPS	-45,000	-45,000	-14,100.00	-1,800.00	.00	-30,900.00	31.3%
011001	363001	NON-RESIDENTIAL SEWE	-5,200,000	-5,200,000	-2,033,986.82	-367,179.95	.00	-3,166,013.18	39.1%
011001	363002	RESIDENTIAL SEWER	-7,900,000	-7,900,000	-3,005,011.98	-600,205.11	.00	-4,894,988.02	38.0%
011001	363011	OTHER SPEC SWR CONTR	-1,080,000	-1,080,000	-537,969.61	-106,391.89	.00	-542,030.39	49.8%
TOTAL MISCELLANEOUS			-28,875,000	-28,875,000	-11,759,850.05	-2,207,762.51	.00	-17,115,149.95	40.7%
34 MISCELLANEOUS									
011001	340500	CHECKING ACCOUNT INT	-140,000	-140,000	-65,289.42	-13,670.63	.00	-74,710.58	46.6%
TOTAL MISCELLANEOUS			-140,000	-140,000	-65,289.42	-13,670.63	.00	-74,710.58	46.6%
TOTAL WATER & SEWER REVENUES			-29,019,000	-29,019,000	-11,827,994.28	-2,221,796.61	.00	-17,191,005.72	40.8%
TOTAL WATER & SEWER FUND			-29,019,000	-29,019,000	-11,827,994.28	-2,221,796.61	.00	-17,191,005.72	40.8%
TOTAL REVENUES			-29,019,000	-29,019,000	-11,827,994.28	-2,221,796.61	.00	-17,191,005.72	
012 2019 TIF B&I-PLANET FITNESS									
012001 TIF B&I-PLANET FITNES-REVENUES									
34 MISCELLANEOUS									
012001	340500	CHECKING ACCOUNT INT	-400	-400	-43.82	-5.87	.00	-356.18	11.0%
TOTAL MISCELLANEOUS			-400	-400	-43.82	-5.87	.00	-356.18	11.0%
38 TRANSFERS IN									
012001	380027	T/F TAX COLLECTORS-G	-24,894	-24,894	-24,894.00	-24,894.00	.00	.00	100.0%
TOTAL TRANSFERS IN			-24,894	-24,894	-24,894.00	-24,894.00	.00	.00	100.0%
TOTAL TIF B&I-PLANET FITNES-REVEN			-25,294	-25,294	-24,937.82	-24,899.87	.00	-356.18	98.6%

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012	2019 TIF B&I-PLANET FITNESS	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL 2019 TIF B&I-PLANET FITNESS	-25,294	-25,294	-24,937.82	-24,899.87	.00	-356.18	98.6%
	TOTAL REVENUES	-25,294	-25,294	-24,937.82	-24,899.87	.00	-356.18	
013 CITY B & I								
013001 CITY B&I REVENUES								
34 MISCELLANEOUS								
013001	340500 CHECKING ACCOUNT INT	-12,000	-12,000	-1,283.34	-108.44	.00	-10,716.66	10.7%
	TOTAL MISCELLANEOUS	-12,000	-12,000	-1,283.34	-108.44	.00	-10,716.66	10.7%
38 TRANSFERS IN								
013001	380027 T/F TAX COLLECTORS-G	-2,600,000	-2,600,000	-1,853,213.56	-1,209,769.33	.00	-746,786.44	71.3%
	TOTAL TRANSFERS IN	-2,600,000	-2,600,000	-1,853,213.56	-1,209,769.33	.00	-746,786.44	71.3%
	TOTAL CITY B&I REVENUES	-2,612,000	-2,612,000	-1,854,496.90	-1,209,877.77	.00	-757,503.10	71.0%
	TOTAL CITY B & I	-2,612,000	-2,612,000	-1,854,496.90	-1,209,877.77	.00	-757,503.10	71.0%
	TOTAL REVENUES	-2,612,000	-2,612,000	-1,854,496.90	-1,209,877.77	.00	-757,503.10	
014 SCHOOL FUND								
014001 SCHOOL FUND REVENUES								
38 TRANSFERS IN								
014001	380027 T/F TAX COLLECTORS-G	0	0	-13,375,088.65	-9,384,084.10	.00	13,375,088.65	100.0%
014001	3800SB T/F TAX COLLECTOR-GP	0	0	-1,698,391.30	-1,190,932.57	.00	1,698,391.30	100.0%
	TOTAL TRANSFERS IN	0	0	-15,073,479.95	-10,575,016.67	.00	15,073,479.95	100.0%
	TOTAL SCHOOL FUND REVENUES	0	0	-15,073,479.95	-10,575,016.67	.00	15,073,479.95	100.0%

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014	SCHOOL FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL SCHOOL FUND	0	0	-15,073,479.95	-10,575,016.67	.00	15,073,479.95	100.0%
	TOTAL REVENUES	0	0	-15,073,479.95	-10,575,016.67	.00	15,073,479.95	
017 SUPP. ENVIRONMENTAL PROJECT								
017001 SUPP ENV PROJ REVENUES								
34 MISCELLANEOUS								
017001	340700 OTHER INTEREST	0	0	-1,911.07	.00	.00	1,911.07	100.0%
	TOTAL MISCELLANEOUS	0	0	-1,911.07	.00	.00	1,911.07	100.0%
	TOTAL SUPP ENV PROJ REVENUES	0	0	-1,911.07	.00	.00	1,911.07	100.0%
	TOTAL SUPP. ENVIRONMENTAL PROJECT	0	0	-1,911.07	.00	.00	1,911.07	100.0%
	TOTAL REVENUES	0	0	-1,911.07	.00	.00	1,911.07	
018 POLICE & FIREMAN DIS. & RELIEF								
018001 P&FD&R REVENUES								
38 TRANSFERS IN								
018001	380027 T/F TAX COLLECTORS-G	0	0	-932,070.89	-610,468.90	.00	932,070.89	100.0%
	TOTAL TRANSFERS IN	0	0	-932,070.89	-610,468.90	.00	932,070.89	100.0%
	TOTAL P&FD&R REVENUES	0	0	-932,070.89	-610,468.90	.00	932,070.89	100.0%
	TOTAL POLICE & FIREMAN DIS. & REL	0	0	-932,070.89	-610,468.90	.00	932,070.89	100.0%
	TOTAL REVENUES	0	0	-932,070.89	-610,468.90	.00	932,070.89	

019 POLICE FORFEITURES FUND

019001 POL.FORFEITURES REVENUES

33 FINES & FORFEITS

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019	POLICE FORFEITURES FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
019001 332100	CITY COURT COSTS - D	0	0	-3,080.95	-551.82	.00	3,080.95	100.0%
019001 332300	NARC.FORFEITURES-POL	0	0	-3,219.80	.00	.00	3,219.80	100.0%
	TOTAL FINES & FORFEITS	0	0	-6,300.75	-551.82	.00	6,300.75	100.0%
34 MISCELLANEOUS								
019001 340500	CHECKING ACCOUNT INT	0	0	-23.33	-4.72	.00	23.33	100.0%
	TOTAL MISCELLANEOUS	0	0	-23.33	-4.72	.00	23.33	100.0%
	TOTAL POL.FORFEITURES REVENUES	0	0	-6,324.08	-556.54	.00	6,324.08	100.0%
	TOTAL POLICE FORFEITURES FUND	0	0	-6,324.08	-556.54	.00	6,324.08	100.0%
	TOTAL REVENUES	0	0	-6,324.08	-556.54	.00	6,324.08	
020 2002 TIF B&I-SOUTHERN POINTE								
020001 2002 TIF B&I-S/P REVENUES								
34 MISCELLANEOUS								
020001 340500	CHECKING ACCOUNT INT	-1,000	-1,000	-124.43	-11.55	.00	-875.57	12.4%
	TOTAL MISCELLANEOUS	-1,000	-1,000	-124.43	-11.55	.00	-875.57	12.4%
38 TRANSFERS IN								
020001 380027	T/F TAX COLLECTORS-G	-65,646	-65,646	-65,646.00	-65,646.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-65,646	-65,646	-65,646.00	-65,646.00	.00	.00	100.0%
	TOTAL 2002 TIF B&I-S/P REVENUES	-66,646	-66,646	-65,770.43	-65,657.55	.00	-875.57	98.7%
	TOTAL 2002 TIF B&I-SOUTHERN POINT	-66,646	-66,646	-65,770.43	-65,657.55	.00	-875.57	98.7%
	TOTAL REVENUES	-66,646	-66,646	-65,770.43	-65,657.55	.00	-875.57	

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022	2003 TIF B&I-CHAUVET SQUARE	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
022 2003 TIF B&I-CHAUVET SQUARE								
022001 2003 TIF B&I-C/S REVENUES								
34 MISCELLANEOUS								
022001	340500 CHECKING ACCOUNT INT	0	0	-71.79	-9.56	.00	71.79	100.0%
	TOTAL MISCELLANEOUS	0	0	-71.79	-9.56	.00	71.79	100.0%
38 TRANSFERS IN								
022001	380027 T/F TAX COLLECTORS-G	-195,000	-195,000	-195,000.00	-195,000.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-195,000	-195,000	-195,000.00	-195,000.00	.00	.00	100.0%
	TOTAL 2003 TIF B&I-C/S REVENUES	-195,000	-195,000	-195,071.79	-195,009.56	.00	71.79	100.0%
	TOTAL 2003 TIF B&I-CHAUVET SQUARE	-195,000	-195,000	-195,071.79	-195,009.56	.00	71.79	100.0%
	TOTAL REVENUES	-195,000	-195,000	-195,071.79	-195,009.56	.00	71.79	
023 2006 TIF B&I-TURTLE CROSSING								
023001 2007 TIF B&I-T/C REVENUES								
34 MISCELLANEOUS								
023001	340500 CHECKING ACCOUNT INT	-500	-500	-74.04	-6.25	.00	-425.96	14.8%
	TOTAL MISCELLANEOUS	-500	-500	-74.04	-6.25	.00	-425.96	14.8%
38 TRANSFERS IN								
023001	380027 T/F TAX COLLECTORS-G	-77,000	-77,000	-77,000.00	-77,000.00	.00	.00	100.0%

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023	2006 TIF B&I-TURTLE CROSSING	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL TRANSFERS IN	-77,000	-77,000	-77,000.00	-77,000.00	.00	.00	100.0%
	TOTAL 2007 TIF B&I-T/C REVENUES	-77,500	-77,500	-77,074.04	-77,006.25	.00	-425.96	99.5%
	TOTAL 2006 TIF B&I-TURTLE CROSSIN	-77,500	-77,500	-77,074.04	-77,006.25	.00	-425.96	99.5%
	TOTAL REVENUES	-77,500	-77,500	-77,074.04	-77,006.25	.00	-425.96	
024 2008 TIF B&I-LINCOLN CENTER								
024001 2008 TIF B&I-L/C REVENUES								
34 MISCELLANEOUS								
024001	340500 CHECKING ACCOUNT INT	0	0	-2.54	-.34	.00	2.54	100.0%
	TOTAL MISCELLANEOUS	0	0	-2.54	-.34	.00	2.54	100.0%
	TOTAL 2008 TIF B&I-L/C REVENUES	0	0	-2.54	-.34	.00	2.54	100.0%
	TOTAL 2008 TIF B&I-LINCOLN CENTER	0	0	-2.54	-.34	.00	2.54	100.0%
	TOTAL REVENUES	0	0	-2.54	-.34	.00	2.54	
026 2016 TIF B&I-WHISPERING PINES								
026001 2016 TIF B&I-WHISP PINES REVEN								
34 MISCELLANEOUS								
026001	340500 CHECKING ACCOUNT INT	-1,500	-1,500	-255.71	-33.30	.00	-1,244.29	17.0%
	TOTAL MISCELLANEOUS	-1,500	-1,500	-255.71	-33.30	.00	-1,244.29	17.0%
38 TRANSFERS IN								
026001	380027 T/F TAX COLLECTORS-G	-171,474	-171,474	-171,474.00	-171,474.00	.00	.00	100.0%

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026	2016 TIF B&I-WHISPERING PINES	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL TRANSFERS IN	-171,474	-171,474	-171,474.00	-171,474.00	.00	.00	100.0%
	TOTAL 2016 TIF B&I-WHISP PINES RE	-172,974	-172,974	-171,729.71	-171,507.30	.00	-1,244.29	99.3%
	TOTAL 2016 TIF B&I-WHISPERING PIN	-172,974	-172,974	-171,729.71	-171,507.30	.00	-1,244.29	99.3%
	TOTAL REVENUES	-172,974	-172,974	-171,729.71	-171,507.30	.00	-1,244.29	
027 TAX COLLECTOR'S FUND								
027001 TAX COLLECTOR'S REVENUES								
20 REVENUES								
027001	2001CI REALTY-CITY	0	0	-13,176,144.09	-8,391,122.50	.00	13,176,144.09	100.0%
027001	2001SC REALTY-SCHOOL	0	0	-8,846,749.88	-6,151,396.58	.00	8,846,749.88	100.0%
027001	200500 HOMESTEAD LOSS	0	0	118,323.39	77,910.99	.00	-118,323.39	100.0%
027001	2010CI PRSNLT AUTO-CITY	0	0	-699,265.44	-195,188.29	.00	699,265.44	100.0%
027001	2010SC PRSNLT AUTO-SCHOOL	0	0	-569,289.43	-153,612.26	.00	569,289.43	100.0%
027001	2020CI PERSONALTY-CITY	0	0	-5,457,165.43	-4,248,509.88	.00	5,457,165.43	100.0%
027001	2020SC PERSONALTY-SCHOOL	0	0	-5,491,003.30	-4,333,948.98	.00	5,491,003.30	100.0%
027001	203100 NON-EXEMPT REALTY P/	0	0	-18,412.02	-1,153.71	.00	18,412.02	100.0%
027001	203500 EXEMPT REALTY P/Y	0	0	-24,082.93	-4,142.79	.00	24,082.93	100.0%
027001	204000 PERSONALTY-AUTO P/Y	0	0	-515,769.17	-15,359.76	.00	515,769.17	100.0%
027001	205000 PERSONALTY P/Y	0	0	-88,007.91	-14,702.64	.00	88,007.91	100.0%
027001	210000 INT/PENALTY ON DEL.	0	0	-63,589.21	-9,985.76	.00	63,589.21	100.0%
027001	211000 EXCESS BID-PROP. TAX	0	0	-105,645.48	.00	.00	105,645.48	100.0%
	TOTAL REVENUES	0	0	-34,936,800.90	-23,441,212.16	.00	34,936,800.90	100.0%
34 MISCELLANEOUS								
027001	340500 CHECKING ACCOUNT INT	0	0	-16,841.89	-9,338.65	.00	16,841.89	100.0%
	TOTAL MISCELLANEOUS	0	0	-16,841.89	-9,338.65	.00	16,841.89	100.0%
	TOTAL TAX COLLECTOR'S REVENUES	0	0	-34,953,642.79	-23,450,550.81	.00	34,953,642.79	100.0%
	TOTAL TAX COLLECTOR'S FUND	0	0	-34,953,642.79	-23,450,550.81	.00	34,953,642.79	100.0%
	TOTAL REVENUES	0	0	-34,953,642.79	-23,450,550.81	.00	34,953,642.79	

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028	2016 TIF B&I-HBRG CLINIC MIDTN	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
028 2016 TIF B&I-HBRG CLINIC MIDTN								
028001 2016 TIF B&I-HBRG CLINIC MIDTN								
34 MISCELLANEOUS								
028001 340500	CHECKING ACCOUNT INT	-700	-700	-27.41	-1.46	.00	-672.59	3.9%
	TOTAL MISCELLANEOUS	-700	-700	-27.41	-1.46	.00	-672.59	3.9%
38 TRANSFERS IN								
028001 380027	T/F TAX COLLECTORS-G	-33,878	-33,878	-33,878.00	-33,878.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-33,878	-33,878	-33,878.00	-33,878.00	.00	.00	100.0%
	TOTAL 2016 TIF B&I-HBRG CLINIC MI	-34,578	-34,578	-33,905.41	-33,879.46	.00	-672.59	98.1%
	TOTAL 2016 TIF B&I-HBRG CLINIC MI	-34,578	-34,578	-33,905.41	-33,879.46	.00	-672.59	98.1%
	TOTAL REVENUES	-34,578	-34,578	-33,905.41	-33,879.46	.00	-672.59	
039 AIRPORT IMPROVEMENT FUND								
039001 AIRPORT IMPR. REVENUES								
34 MISCELLANEOUS								
039001 340500	CHECKING ACCOUNT INT	-1,800	-1,800	-1,772.69	-367.07	.00	-27.31	98.5%
039001 341213	LORESCO INC	-1,200	-1,200	-1,200.00	.00	.00	.00	100.0%
039001 341221	SOUTHEAST AVIATION S	-15,775	-15,775	-9,863.58	-1,684.01	.00	-5,911.42	62.5%
039001 341222	SE AVIATION BLDG LAN	-6,000	-6,000	-3,450.00	.00	.00	-2,550.00	57.5%
	TOTAL MISCELLANEOUS	-24,775	-24,775	-16,286.27	-2,051.08	.00	-8,488.73	65.7%
38 TRANSFERS IN								
039001 380001	T/F GENERAL FUND	-250,000	-250,000	-250,000.00	.00	.00	.00	100.0%

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039	AIRPORT IMPROVEMENT FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL TRANSFERS IN	-250,000	-250,000	-250,000.00	.00	.00	.00	100.0%
	TOTAL AIRPORT IMPR. REVENUES	-274,775	-274,775	-266,286.27	-2,051.08	.00	-8,488.73	96.9%
	TOTAL AIRPORT IMPROVEMENT FUND	-274,775	-274,775	-266,286.27	-2,051.08	.00	-8,488.73	96.9%
	TOTAL REVENUES	-274,775	-274,775	-266,286.27	-2,051.08	.00	-8,488.73	
050 2015A TIF B&I-RIDGE/TURTLE CRK								
050001 2015A TIF B&I-RIDGE/TURTLE CRK								
34 MISCELLANEOUS								
050001	340500 CHECKING ACCOUNT INT	0	0	-24.66	-.68	.00	24.66	100.0%
	TOTAL MISCELLANEOUS	0	0	-24.66	-.68	.00	24.66	100.0%
38 TRANSFERS IN								
050001	380027 T/F TAX COLLECTORS-G	-89,771	-89,771	-89,771.00	-89,771.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-89,771	-89,771	-89,771.00	-89,771.00	.00	.00	100.0%
	TOTAL 2015A TIF B&I-RIDGE/TURTLE	-89,771	-89,771	-89,795.66	-89,771.68	.00	24.66	100.0%
	TOTAL 2015A TIF B&I-RIDGE/TURTLE	-89,771	-89,771	-89,795.66	-89,771.68	.00	24.66	100.0%
	TOTAL REVENUES	-89,771	-89,771	-89,795.66	-89,771.68	.00	24.66	
051 2015B TIF B&I-MIDTOWN MARKET								
051001 2015B TIF B&I-MIDTOWN MARKET								
34 MISCELLANEOUS								
051001	340500 CHECKING ACCOUNT INT	0	0	-4.49	-.16	.00	4.49	100.0%

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051	2015B TIF B&I-MIDTOWN MARKET	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL MISCELLANEOUS	0	0	-4.49	-.16	.00	4.49	100.0%
38 TRANSFERS IN								
051001 380027	T/F TAX COLLECTORS-G	-9,969	-9,969	-9,969.00	-9,969.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-9,969	-9,969	-9,969.00	-9,969.00	.00	.00	100.0%
	TOTAL 2015B TIF B&I-MIDTOWN MARKE	-9,969	-9,969	-9,973.49	-9,969.16	.00	4.49	100.0%
	TOTAL 2015B TIF B&I-MIDTOWN MARKE	-9,969	-9,969	-9,973.49	-9,969.16	.00	4.49	100.0%
	TOTAL REVENUES	-9,969	-9,969	-9,973.49	-9,969.16	.00	4.49	
052 2019 TIF B&I-ELAM ARMS MIDTOWN								
052001 2019 TIF B&I ELAM ARMS MIDTOWN								
34 MISCELLANEOUS								
052001 340500	CHECKING ACCOUNT INT	-1,500	-1,500	-165.76	-23.50	.00	-1,334.24	11.1%
052001 340700	OTHER INTEREST	0	0	-664.25	.00	.00	664.25	100.0%
	TOTAL MISCELLANEOUS	-1,500	-1,500	-830.01	-23.50	.00	-669.99	55.3%
38 TRANSFERS IN								
052001 380001	T/F GENERAL FUND	-68,900	-68,900	-68,840.00	.00	.00	-60.00	99.9%
052001 380027	T/F TAX COLLECTORS-G	-132,017	-132,017	-132,017.00	-132,017.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-200,917	-200,917	-200,857.00	-132,017.00	.00	-60.00	100.0%
	TOTAL 2019 TIF B&I ELAM ARMS MIDT	-202,417	-202,417	-201,687.01	-132,040.50	.00	-729.99	99.6%
	TOTAL 2019 TIF B&I-ELAM ARMS MIDT	-202,417	-202,417	-201,687.01	-132,040.50	.00	-729.99	99.6%
	TOTAL REVENUES	-202,417	-202,417	-201,687.01	-132,040.50	.00	-729.99	
072 MUNICIPAL ROAD & BRIDGE								

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072	MUNICIPAL ROAD & BRIDGE	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
072001 MUN.ROAD&BRIDGE REVENUES								
20 REVENUES								
072001 250108	AVENUES IMPROVEMENTS	0	0	-3,500,000.00	-3,500,000.00	.00	3,500,000.00	100.0%
072001 250109	TIPTON STREET IMPR #	0	0	-300,000.00	-300,000.00	.00	300,000.00	100.0%
	TOTAL REVENUES	0	0	-3,800,000.00	-3,800,000.00	.00	3,800,000.00	100.0%
27 CITY-CTY SHARED REV								
072001 271000	PRO-RATA CTY RD TAX-	-950,000	-950,000	-667,650.93	-457,431.02	.00	-282,349.07	70.3%
072001 271500	PRO-RATA CTY RD TAX-	-1,000,000	-1,000,000	-828,219.77	-490,296.93	.00	-171,780.23	82.8%
	TOTAL CITY-CTY SHARED REV	-1,950,000	-1,950,000	-1,495,870.70	-947,727.95	.00	-454,129.30	76.7%
34 MISCELLANEOUS								
072001 340500	CHECKING ACCOUNT INT	0	0	-6,053.34	-1,871.18	.00	6,053.34	100.0%
	TOTAL MISCELLANEOUS	0	0	-6,053.34	-1,871.18	.00	6,053.34	100.0%
	TOTAL MUN.ROAD&BRIDGE REVENUES	-1,950,000	-1,950,000	-5,301,924.04	-4,749,599.13	.00	3,351,924.04	271.9%
	TOTAL MUNICIPAL ROAD & BRIDGE	-1,950,000	-1,950,000	-5,301,924.04	-4,749,599.13	.00	3,351,924.04	271.9%
	TOTAL REVENUES	-1,950,000	-1,950,000	-5,301,924.04	-4,749,599.13	.00	3,351,924.04	
073 MASS TRANSIT FUND								
073001 MASS TRANSIT REVENUES								
23 FEDERAL GRANTS								
073001 234000	UMTA-MASS TRANS-OPER	-10,023	-10,023	-29,060.00	.00	.00	19,037.00	289.9%

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073	MASS TRANSIT FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
073001 234100	UMTA-MASS TRANS-CAPT	-1,433,503	-1,433,503	-109,667.00	.00	.00	-1,323,836.00	7.7%
073001 234400	UMTA-MASS TRANS-PREV	-904,139	-904,139	-69,197.00	.00	.00	-834,942.00	7.7%
	TOTAL FEDERAL GRANTS	-2,347,665	-2,347,665	-207,924.00	.00	.00	-2,139,741.00	8.9%
34 MISCELLANEOUS								
073001 340500	CHECKING ACCOUNT INT	-1,666	-1,666	-73.88	.00	.00	-1,592.12	4.4%
	TOTAL MISCELLANEOUS	-1,666	-1,666	-73.88	.00	.00	-1,592.12	4.4%
35 OTHER - MISC								
073001 352500	BUS FARES-FIXED ROUT	-288	-288	-11,729.98	-2,406.90	.00	11,441.98	4072.9%
073001 352700	BUS FARES-DEMAND RES	-155	-155	-752.89	-157.61	.00	597.89	485.7%
073001 353000	BUS FARES-USM ROUTE	0	0	-121,000.00	-121,000.00	.00	121,000.00	100.0%
073001 353500	ADVERTISING	-700	-700	-141.45	.00	.00	-558.55	20.2%
	TOTAL OTHER - MISC	-1,143	-1,143	-133,624.32	-123,564.51	.00	132,481.32	*****%
38 TRANSFERS IN								
073001 380001	T/F GENERAL FUND	-445,000	-445,000	-445,000.00	.00	.00	.00	100.0%
073001 380027	T/F TAX COLLECTORS-G	-260,000	-260,000	-187,093.76	-122,134.00	.00	-72,906.24	72.0%
	TOTAL TRANSFERS IN	-705,000	-705,000	-632,093.76	-122,134.00	.00	-72,906.24	89.7%
	TOTAL MASS TRANSIT REVENUES	-3,055,474	-3,055,474	-973,715.96	-245,698.51	.00	-2,081,758.04	31.9%
	TOTAL MASS TRANSIT FUND	-3,055,474	-3,055,474	-973,715.96	-245,698.51	.00	-2,081,758.04	31.9%
	TOTAL REVENUES	-3,055,474	-3,055,474	-973,715.96	-245,698.51	.00	-2,081,758.04	
075 WATER&SEWER CONSTRUCTION FUND								
075001 W&S CONSTR. REVENUES								
34 MISCELLANEOUS								
075001 340500	CHECKING ACCOUNT INT	-22,000	-22,000	-22,297.83	-7,997.10	.00	297.83	101.4%

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075	WATER&SEWER CONSTRUCTION FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
075001 341114	SBA STRUCTURES (WM C	-15,000	-15,000	-10,470.05	-1,753.52	.00	-4,529.95	69.8%
075001 341115	CCATT HOLDINGS-WATER	-45,000	-45,000	-8,542.20	-3,416.88	.00	-36,457.80	19.0%
	TOTAL MISCELLANEOUS	-82,000	-82,000	-41,310.08	-13,167.50	.00	-40,689.92	50.4%
38 TRANSFERS IN								
075001 380011	T/F WATER & SEWER	-5,870,000	-5,870,000	-1,564,492.92	-449,054.23	.00	-4,305,507.08	26.7%
	TOTAL TRANSFERS IN	-5,870,000	-5,870,000	-1,564,492.92	-449,054.23	.00	-4,305,507.08	26.7%
39 NON-REVENUE RECEIPTS								
075001 397600	SRF LOAN PROCEEDS	-1,500,000	-1,500,000	-2,146,617.51	.00	.00	646,617.51	143.1%
	TOTAL NON-REVENUE RECEIPTS	-1,500,000	-1,500,000	-2,146,617.51	.00	.00	646,617.51	143.1%
	TOTAL W&S CONSTR. REVENUES	-7,452,000	-7,452,000	-3,752,420.51	-462,221.73	.00	-3,699,579.49	50.4%
	TOTAL WATER&SEWER CONSTRUCTION FU	-7,452,000	-7,452,000	-3,752,420.51	-462,221.73	.00	-3,699,579.49	50.4%
	TOTAL REVENUES	-7,452,000	-7,452,000	-3,752,420.51	-462,221.73	.00	-3,699,579.49	
077 COMMUNITY CENTERS' FUND								
077001 COMMUNITY CTR REVENUES								
30 MISCELLANEOUS								
077001 314100	SIGLER CENTER USE FE	-1,000	-1,000	-1,075.00	-250.00	.00	75.00	107.5%
077001 314200	C.E.ROY/5TH ST.C.C.U	-5,000	-5,000	-5,017.00	-1,996.00	.00	17.00	100.3%
077001 314300	JDS C.C. USE FEE	-12,000	-12,000	-4,253.50	-914.00	.00	-7,746.50	35.4%
077001 314600	CULTURAL CTR USE FEE	-4,000	-4,000	-2,300.00	-900.00	.00	-1,700.00	57.5%
	TOTAL MISCELLANEOUS	-22,000	-22,000	-12,645.50	-4,060.00	.00	-9,354.50	57.5%
34 MISCELLANEOUS								
077001 340500	CHECKING ACCOUNT INT	-25,000	-25,000	-8,299.38	-2,122.48	.00	-16,700.62	33.2%

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077	COMMUNITY CENTERS' FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL MISCELLANEOUS	-25,000	-25,000	-8,299.38	-2,122.48	.00	-16,700.62	33.2%
38 TRANSFERS IN								
077001 380001	T/F GENERAL FUND	-853,500	-853,500	-853,500.00	.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-853,500	-853,500	-853,500.00	.00	.00	.00	100.0%
	TOTAL COMMUNITY CTR REVENUES	-900,500	-900,500	-874,444.88	-6,182.48	.00	-26,055.12	97.1%
	TOTAL COMMUNITY CENTERS' FUND	-900,500	-900,500	-874,444.88	-6,182.48	.00	-26,055.12	97.1%
	TOTAL REVENUES	-900,500	-900,500	-874,444.88	-6,182.48	.00	-26,055.12	
079 COVID FISCAL RECOVERY FUNDS								
079001 COVID FISCAL RECOVERY REVENUE								
25 STATE GRANTS								
079001 253500	MCWI WATER INFRASTRU	-9,923,900	-9,923,900	-165,235.50	.00	.00	-9,758,664.50	1.7%
	TOTAL STATE GRANTS	-9,923,900	-9,923,900	-165,235.50	.00	.00	-9,758,664.50	1.7%
	TOTAL COVID FISCAL RECOVERY REVEN	-9,923,900	-9,923,900	-165,235.50	.00	.00	-9,758,664.50	1.7%
	TOTAL COVID FISCAL RECOVERY FUNDS	-9,923,900	-9,923,900	-165,235.50	.00	.00	-9,758,664.50	1.7%
	TOTAL REVENUES	-9,923,900	-9,923,900	-165,235.50	.00	.00	-9,758,664.50	
082 COMMUNITY DEVELOP. BLOCK GRANT								
082001 CDBG REVENUES								
24 FEDERAL GRANTS								
082001 2403AD	CDBG-ENT.-ADMINISTRA	0	0	-162,541.79	-54,501.89	.00	162,541.79	100.0%

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082	COMMUNITY DEVELOP. BLOCK GRANT	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
082001 2403PD	CDBG-ENT.PROJECT DEL	0	0	-12,211.58	.00	.00	12,211.58	100.0%
082001 2404AD	HOME ENTIT-ADMINISTR	0	0	-55,545.87	-1,793.70	.00	55,545.87	100.0%
	TOTAL FEDERAL GRANTS	0	0	-230,299.24	-56,295.59	.00	230,299.24	100.0%
34 MISCELLANEOUS								
082001 340500	CHECKING ACCOUNT INT	-10,000	-10,000	-1,836.71	-657.20	.00	-8,163.29	18.4%
	TOTAL MISCELLANEOUS	-10,000	-10,000	-1,836.71	-657.20	.00	-8,163.29	18.4%
38 TRANSFERS IN								
082001 380001	T/F GENERAL FUND	-36,000	-36,000	-36,000.00	.00	.00	.00	100.0%
	TOTAL TRANSFERS IN	-36,000	-36,000	-36,000.00	.00	.00	.00	100.0%
39 NON-REVENUE RECEIPTS								
082001 396500	REFUND & RECOVERY	0	0	-36.00	-36.00	.00	36.00	100.0%
	TOTAL NON-REVENUE RECEIPTS	0	0	-36.00	-36.00	.00	36.00	100.0%
	TOTAL CDBG REVENUES	-46,000	-46,000	-268,171.95	-56,988.79	.00	222,171.95	583.0%
	TOTAL COMMUNITY DEVELOP. BLOCK GR	-46,000	-46,000	-268,171.95	-56,988.79	.00	222,171.95	583.0%
	TOTAL REVENUES	-46,000	-46,000	-268,171.95	-56,988.79	.00	222,171.95	
086 SPEC SALES TAX-P&R/UNIV IMPROV								
086001 SPEC SALES TAX P&R/UNIV IMPROV								
26 STATE-SHARED REVENUE								
086001 260500	SALES TAX-MOTEL	-450,000	-450,000	-177,468.90	-28,695.37	.00	-272,531.10	39.4%

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086	SPEC SALES TAX-P&R/UNIV IMPROV	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
086001 260700	SALES TAX-FOOD & BEV	-3,100,000	-3,100,000	-1,407,611.46	-332,018.19	.00	-1,692,388.54	45.4%
	TOTAL STATE-SHARED REVENUE	-3,550,000	-3,550,000	-1,585,080.36	-360,713.56	.00	-1,964,919.64	44.7%
34 MISCELLANEOUS								
086001 340500	CHECKING ACCOUNT INT	0	0	-14,030.02	-2,529.09	.00	14,030.02	100.0%
	TOTAL MISCELLANEOUS	0	0	-14,030.02	-2,529.09	.00	14,030.02	100.0%
	TOTAL SPEC SALES TAX P&R/UNIV IMP	-3,550,000	-3,550,000	-1,599,110.38	-363,242.65	.00	-1,950,889.62	45.0%
	TOTAL SPEC SALES TAX-P&R/UNIV IMP	-3,550,000	-3,550,000	-1,599,110.38	-363,242.65	.00	-1,950,889.62	45.0%
	TOTAL REVENUES	-3,550,000	-3,550,000	-1,599,110.38	-363,242.65	.00	-1,950,889.62	
087 INDUSTRIAL PARK DEVELOPMENT								
087001 INDUSTRIAL PK REVENUES								
34 MISCELLANEOUS								
087001 340500	CHECKING ACCOUNT INT	0	0	-1,598.10	-316.61	.00	1,598.10	100.0%
087001 345500	CONTRIBUTIONS-FORRES	0	0	-157,500.00	.00	.00	157,500.00	100.0%
087001 345600	CONTRIBUTIONS-CITY	0	0	-162,500.00	.00	.00	162,500.00	100.0%
	TOTAL MISCELLANEOUS	0	0	-321,598.10	-316.61	.00	321,598.10	100.0%
39 NON-REVENUE RECEIPTS								
087001 396500	REFUND & RECOVERY	0	0	-758.82	.00	.00	758.82	100.0%
	TOTAL NON-REVENUE RECEIPTS	0	0	-758.82	.00	.00	758.82	100.0%
	TOTAL INDUSTRIAL PK REVENUES	0	0	-322,356.92	-316.61	.00	322,356.92	100.0%
	TOTAL INDUSTRIAL PARK DEVELOPMENT	0	0	-322,356.92	-316.61	.00	322,356.92	100.0%
	TOTAL REVENUES	0	0	-322,356.92	-316.61	.00	322,356.92	

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088	PUBLIC SAFETY/REC CONSTRUCTION	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
088 PUBLIC SAFETY/REC CONSTRUCTION								
088001 PUBLIC SAFETY/REC CONSTRUCTION								
24 FEDERAL GRANTS								
088001 255528	DOT-BUILD GRANT	-114,000	-114,000	-556,367.93	-50,000.00	.00	442,367.93	488.0%
	TOTAL FEDERAL GRANTS	-114,000	-114,000	-556,367.93	-50,000.00	.00	442,367.93	488.0%
34 MISCELLANEOUS								
088001 340500	CHECKING ACCOUNT INT	-40,000	-40,000	-15,652.19	-4,645.41	.00	-24,347.81	39.1%
088001 3405TB	SAVINGS ACCOUNT/MMA	0	0	-729.21	.00	.00	729.21	100.0%
	TOTAL MISCELLANEOUS	-40,000	-40,000	-16,381.40	-4,645.41	.00	-23,618.60	41.0%
	TOTAL PUBLIC SAFETY/REC CONSTRUCT	-154,000	-154,000	-572,749.33	-54,645.41	.00	418,749.33	371.9%
	TOTAL PUBLIC SAFETY/REC CONSTRUCT	-154,000	-154,000	-572,749.33	-54,645.41	.00	418,749.33	371.9%
	TOTAL REVENUES	-154,000	-154,000	-572,749.33	-54,645.41	.00	418,749.33	
093 2016 W&S SYSTEM PROJECT								
093001 2016 W&S SYSTEM - REV								
34 MISCELLANEOUS								
093001 340500	CHECKING ACCOUNT INT	0	0	-7.07	.00	.00	7.07	100.0%
	TOTAL MISCELLANEOUS	0	0	-7.07	.00	.00	7.07	100.0%
	TOTAL 2016 W&S SYSTEM - REV	0	0	-7.07	.00	.00	7.07	100.0%
	TOTAL 2016 W&S SYSTEM PROJECT	0	0	-7.07	.00	.00	7.07	100.0%
	TOTAL REVENUES	0	0	-7.07	.00	.00	7.07	

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095	2019 FIRE STATION CONSTRUCTION	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
095 2019 FIRE STATION CONSTRUCTION								
095001 2019 FIRE STATION CONSTRUCTION								
34 MISCELLANEOUS								
095001 340500	CHECKING ACCOUNT INT	-25,000	-25,000	-17,480.30	-11,226.41	.00	-7,519.70	69.9%
	TOTAL MISCELLANEOUS	-25,000	-25,000	-17,480.30	-11,226.41	.00	-7,519.70	69.9%
39 NON-REVENUE RECEIPTS								
095001 391200	BOND PROCEEDS	0	0	-4,000,000.00	.00	.00	4,000,000.00	100.0%
	TOTAL NON-REVENUE RECEIPTS	0	0	-4,000,000.00	.00	.00	4,000,000.00	100.0%
	TOTAL 2019 FIRE STATION CONSTRUCT	-25,000	-25,000	-4,017,480.30	-11,226.41	.00	3,992,480.30*****%	
	TOTAL 2019 FIRE STATION CONSTRUCT	-25,000	-25,000	-4,017,480.30	-11,226.41	.00	3,992,480.30*****%	
	TOTAL REVENUES	-25,000	-25,000	-4,017,480.30	-11,226.41	.00	3,992,480.30	
097 INFRA IMPROVE-INTRNT SALES TAX								
097001 INFRA IMPROVE-INTRNT SALES TAX								
26 STATE-SHARED REVENUE								
097001 260800	SALES TAX-INTERNET	-5,500,000	-5,500,000	-2,809,274.67	.00	.00	-2,690,725.33	51.1%
	TOTAL STATE-SHARED REVENUE	-5,500,000	-5,500,000	-2,809,274.67	.00	.00	-2,690,725.33	51.1%
34 MISCELLANEOUS								
097001 340500	CHECKING ACCOUNT INT	-50,000	-50,000	-39,702.35	-4,552.52	.00	-10,297.65	79.4%

EXPENDITURE REPORT

FOR 2025 05

097	INFRA IMPROVE-INTRNT SALES TAX	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
	TOTAL MISCELLANEOUS	-50,000	-50,000	-39,702.35	-4,552.52	.00	-10,297.65	79.4%
	TOTAL INFRA IMPROVE-INTRNT SALES	-5,550,000	-5,550,000	-2,848,977.02	-4,552.52	.00	-2,701,022.98	51.3%
	TOTAL INFRA IMPROVE-INTRNT SALES	-5,550,000	-5,550,000	-2,848,977.02	-4,552.52	.00	-2,701,022.98	51.3%
	TOTAL REVENUES	-5,550,000	-5,550,000	-2,848,977.02	-4,552.52	.00	-2,701,022.98	
098 WATER METER BONDS								
098001 WATER METER BONDS REVENUE								
34 MISCELLANEOUS								
098001 340500	CHECKING ACCOUNT INT	-2,000	-2,000	-1,912.87	-99.61	.00	-87.13	95.6%
	TOTAL MISCELLANEOUS	-2,000	-2,000	-1,912.87	-99.61	.00	-87.13	95.6%
	TOTAL WATER METER BONDS REVENUE	-2,000	-2,000	-1,912.87	-99.61	.00	-87.13	95.6%
	TOTAL WATER METER BONDS	-2,000	-2,000	-1,912.87	-99.61	.00	-87.13	95.6%
	TOTAL REVENUES	-2,000	-2,000	-1,912.87	-99.61	.00	-87.13	
105 2013 W&S BOND CONSTRUCTION								
105001 2013 W&S BOND CONSTR REVENUES								
34 MISCELLANEOUS								
105001 340500	CHECKING ACCOUNT INT	0	0	-7.28	.00	.00	7.28	100.0%
	TOTAL MISCELLANEOUS	0	0	-7.28	.00	.00	7.28	100.0%
	TOTAL 2013 W&S BOND CONSTR REVENUE	0	0	-7.28	.00	.00	7.28	100.0%
	TOTAL 2013 W&S BOND CONSTRUCTION	0	0	-7.28	.00	.00	7.28	100.0%
	TOTAL REVENUES	0	0	-7.28	.00	.00	7.28	

EXPENDITURE REPORT

FOR 2025 05

107	SPECIAL SALES TAX-T&A	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
107 SPECIAL SALES TAX-T&A								
107001 SPEC.SALES TAX REVENUES								
26 STATE-SHARED REVENUE								
107001 260500	SALES TAX-MOTEL	0	0	-317,224.15	-52,221.35	.00	317,224.15	100.0%
	TOTAL STATE-SHARED REVENUE	0	0	-317,224.15	-52,221.35	.00	317,224.15	100.0%
	TOTAL SPEC.SALES TAX REVENUES	0	0	-317,224.15	-52,221.35	.00	317,224.15	100.0%
	TOTAL SPECIAL SALES TAX-T&A	0	0	-317,224.15	-52,221.35	.00	317,224.15	100.0%
	TOTAL REVENUES	0	0	-317,224.15	-52,221.35	.00	317,224.15	
109 GROUP INSURANCE TRUST FUND								
109001 GROUP INS.TRUST REVENUES								
34 MISCELLANEOUS								
109001 340500	CHECKING ACCOUNT INT	0	0	-6,081.01	-2,444.52	.00	6,081.01	100.0%
	TOTAL MISCELLANEOUS	0	0	-6,081.01	-2,444.52	.00	6,081.01	100.0%
39 NON-REVENUE RECEIPTS								
109001 396600	HOSP.INS.-P/R DISTRI	0	0	-2,345,362.40	-968,196.94	.00	2,345,362.40	100.0%
109001 396601	HOSP.INS.-COBRA	0	0	-400,873.46	.00	.00	400,873.46	100.0%
	TOTAL NON-REVENUE RECEIPTS	0	0	-2,746,235.86	-968,196.94	.00	2,746,235.86	100.0%
	TOTAL GROUP INS.TRUST REVENUES	0	0	-2,752,316.87	-970,641.46	.00	2,752,316.87	100.0%
	TOTAL GROUP INSURANCE TRUST FUND	0	0	-2,752,316.87	-970,641.46	.00	2,752,316.87	100.0%
	TOTAL REVENUES	0	0	-2,752,316.87	-970,641.46	.00	2,752,316.87	
	GRAND TOTAL	-154,427,659	-154,427,659	-135,572,023.58	-63,818,185.42	.00	-18,855,635.42	87.8%

EXPENDITURE REPORT

FOR 2025 05

109	GROUP INSURANCE TRUST FUND	ORIGINAL APPROP	REVISED BUDGET	YTD EXPENDED	MTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
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** END OF REPORT - Generated by LISA HANSON **

REPORT OPTIONS



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Wiley Quinn, Urban Development Director, Dequandra Johnson
cc: Kermas Eaton, City Clerk
Date: Tuesday, March 18, 2025
Re: Acknowledge the final version of the 2024 Consolidated Annual Performance and Evaluation Report (CAPER) and authorize submission to the U. S. Department of Housing and Urban Development (HUD).
File Number: 2025-202
Minute Book #

Summary

Acknowledge the final version of the 2024 Consolidated Annual Performance and Evaluation Report (CAPER) and authorize submission to the U. S. Department of Housing and Urban Development (HUD).

Recommendation Statement

I recommend approval of this item. Please place this on the March 18, 2025 City Council meeting for consideration.

Please place this on the March 18, 2025 City Council meeting for consideration.

City of Hattiesburg

2024 Consolidated Annual Performance and Evaluation Report (CAPER)



Presented to the U.S. Department of Housing and Urban Development
City of Hattiesburg
Department of Urban Development
Community Development Division
200 Forrest Street
Hattiesburg, MS 39401



2024 CAPER

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**CITY OF HATTIESBURG
2024 CDBG AND HOME
CONSOLIDATED ANNUAL PERFORMANCE AND EVALUATION REPORT**

CR-05 - Goals and Outcomes

Progress the jurisdiction has made in carrying out its strategic plan and its action plan. 91.520(a)

This could be an overview that includes major initiatives and highlights that were proposed and executed throughout the program year.

The 2024 CAPER describes the results of activities undertaken and completed by and through the City of Hattiesburg's Community Development Division to produce the outcomes identified in the 2024 Annual Action Plan for the period of January 1, 2024 - December 31, 2024. This is the Second CAPER for the 2023-2027 Consolidated Plan.

Comparison of the proposed versus actual outcomes for each outcome measure submitted with the consolidated plan and explain, if applicable, why progress was not made toward meeting goals and objectives. 91.520(g)

Categories, priority levels, funding sources and amounts, outcomes/objectives, goal outcome indicators, units of measure, targets, actual outcomes/outputs, and percentage completed for each of the grantee's program year goals.

Goal	Category	Source / Amount	Indicator	Unit of Measure	Expected – Strategic Plan	Actual – Strategic Plan	Percent Complete	Expected – Program Year	Actual – Program Year	Percent Complete
Address High Priority Public Service Needs	Affordable Housing Homeless Non-Homeless Special Needs Non-Housing Community Development	CDBG: \$	Other	Other	1	0	0.00%	1	0	0.00%

CDBG Administration and Planning	administration	CDBG: \$	Other	Other	1	0	0.00%	1	1	100.00%
CHDO Set-aside	Affordable Housing	HOME: \$	Rental units rehabilitated	Household Housing Unit	5	1	20.00%	1	0	0.00%
Enhance Economic Development Opportunities	Non-Housing Community Development Economic Development	CDBG: \$	Businesses assisted	Businesses Assisted	8	0	0.00%	2	0	0.00%
HOME Administration & Planning	Administration	HOME: \$	Other	Other	1	0	0.00%	1	1	100.00%
Improve Access to Affordable Housing	Affordable Housing	CDBG: \$ / HOME: \$	Rental units constructed	Household Housing Unit	100	0	0.00%			
Improve Access to Affordable Housing	Affordable Housing	CDBG: \$ / HOME: \$	Rental units rehabilitated	Household Housing Unit	0	0		100	0	0.00%
Improve Access to Affordable Housing	Affordable Housing	CDBG: \$ / HOME: \$	Homeowner Housing Rehabilitated	Household Housing Unit	25	58	232.00%	5	0	232.00%
Improve Access to Affordable Housing	Affordable Housing	CDBG: \$ / HOME: \$	Direct Financial Assistance to Homebuyers	Households Assisted	0	0		2	0	0.00%

Provide Residents with Suitable Living Environment	Non-Housing Community Development Improve Living Environment	CDBG: \$	Public Facility or Infrastructure Activities other than Low/Moderate Income Housing Benefit	Persons Assisted	1900	0	0.00%	1900	0	0.00%
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Table 1 - Accomplishments – Program Year & Strategic Plan to Date

Assess how the jurisdiction's use of funds, particularly CDBG, addresses the priorities and specific objectives identified in the plan, giving special attention to the highest priority activities identified.

The City did not contract or expend any 2024 Funding during the 2024 fiscal year as funding was not received until the end of September 2024. All expenditures during the fiscal year was utilized with prior years funding. All CDBG and HOME funds expended were on prior years administrative costs

CR-10 - Racial and Ethnic composition of families assisted

Describe the families assisted (including the racial and ethnic status of families assisted).

91.520(a)

	CDBG	HOME
White	0	0
Black or African American	0	0
Asian	0	0
American Indian or American Native	0	0
Native Hawaiian or Other Pacific Islander	0	0
Total	0	0
Hispanic	0	0
Not Hispanic	0	0

Table 2 – Table of assistance to racial and ethnic populations by source of funds

Narrative

Optional

CR-15 - Resources and Investments 91.520(a)

Identify the resources made available

Source of Funds	Source	Resources Made Available	Amount Expended During Program Year
CDBG	public - federal	542,388	122,229
HOME	public - federal	281,936	53,752

Table 3 - Resources Made Available

Narrative

Programs approved in 2024 included the utilization of CDBG funds for rehabilitation of a public facility which was purchased with prior years CDBG funding. HOME funds were to assist in rental rehabilitation, direct housebuyer assistance and CHDO set-aside for affordable housing to low and moderate income residents citywide.

Actual Grant funding for Fiscal year 2024 (January 1, 2024 to December 31, 2024) was approved and received by HUD in late September 2024. All expenditures made during the fiscal year was from existing prior years project/programs/funding. Due to the late funding the City was not able to start or expend any proposed project funding, with exception of prior administrative expenses.

Identify the geographic distribution and location of investments

Target Area	Planned Percentage of Allocation	Actual Percentage of Allocation	Narrative Description
Citywide		100	
Low/Mod Census Tracts			

Table 4 – Identify the geographic distribution and location of investments

Narrative

The city's geographic distribution and/or allocation of investments are within the city limits of Hattiesburg.

Leveraging

Explain how federal funds leveraged additional resources (private, state and local funds), including a description of how matching requirements were satisfied, as well as how any publicly owned land or property located within the jurisdiction that were used to address the needs identified in the plan.

While the City of Hattiesburg is not required to match CDBG or HOME funds from a compliance standpoint, the City of Hattiesburg is committed to providing services/assistance to vulnerable populations, all within the city limits of Hattiesburg. Funding is not geographically distributed but specifically in eligible areas that meet the national objective benefiting low to moderate persons/households.

Fiscal Year Summary – HOME Match	
1. Excess match from prior Federal fiscal year	0
2. Match contributed during current Federal fiscal year	0
3. Total match available for current Federal fiscal year (Line 1 plus Line 2)	0
4. Match liability for current Federal fiscal year	0
5. Excess match carried over to next Federal fiscal year (Line 3 minus Line 4)	0

Table 5 – Fiscal Year Summary - HOME Match Report

Match Contribution for the Federal Fiscal Year								
Project No. or Other ID	Date of Contribution	Cash (non-Federal sources)	Foregone Taxes, Fees, Charges	Appraised Land/Real Property	Required Infrastructure	Site Preparation, Construction Materials, Donated labor	Bond Financing	Total Match
Not Applicable	0	0	0	0	0	0	0	0

Table 6 – Match Contribution for the Federal Fiscal Year

HOME MBE/WBE report

Program Income – Enter the program amounts for the reporting period				
Balance on hand at begin-ning of reporting period \$	Amount received during reporting period \$	Total amount expended during reporting period \$	Amount expended for TBRA \$	Balance on hand at end of reporting period \$
0	0	0	0	0

Table 7 – Program Income

Minority Business Enterprises and Women Business Enterprises – Indicate the number and dollar value of contracts for HOME projects completed during the reporting period						
	Total	Minority Business Enterprises				White Non-Hispanic
		Alaskan Native or American Indian	Asian or Pacific Islander	Black Non-Hispanic	Hispanic	
Contracts						
Dollar Amount	0	0	0	0	0	0
Number	0	0	0	0	0	0
Sub-Contracts						
Number	0	0	0	0	0	0
Dollar Amount	0	0	0	0	0	0
	Total	Women Business Enterprises	Male			
Contracts						
Dollar Amount	0	0	0			
Number	0	0	0			
Sub-Contracts						
Number	0	0	0			
Dollar Amount	0	0	0			

Table 8 - Minority Business and Women Business Enterprises

Minority Owners of Rental Property – Indicate the number of HOME assisted rental property owners and the total amount of HOME funds in these rental properties assisted						
	Total	Minority Property Owners				White Non-Hispanic
		Alaskan Native or American Indian	Asian or Pacific Islander	Black Non-Hispanic	Hispanic	
Number	0	0	0	0	0	0
Dollar Amount	0	0	0	0	0	0

Table 9 – Minority Owners of Rental Property

Relocation and Real Property Acquisition – Indicate the number of persons displaced, the cost of relocation payments, the number of parcels acquired, and the cost of acquisition						
Parcels Acquired		0		0		
Businesses Displaced		0		0		
Nonprofit Organizations Displaced		0		0		
Households Temporarily Relocated, not Displaced		0		0		
Households Displaced	Total	Minority Property Enterprises				White Non-Hispanic
		Alaskan Native or American Indian	Asian or Pacific Islander	Black Non-Hispanic	Hispanic	
Number	0	0	0	0	0	0
Cost	0	0	0	0	0	0

Table 10 – Relocation and Real Property Acquisition

CR-20 - Affordable Housing 91.520(b)

Evaluation of the jurisdiction's progress in providing affordable housing, including the number and types of families served, the number of extremely low-income, low-income, moderate-income, and middle-income persons served.

	One-Year Goal	Actual
Number of Homeless households to be provided affordable housing units	0	0
Number of Non-Homeless households to be provided affordable housing units	112	0
Number of Special-Needs households to be provided affordable housing units	0	0
Total	112	0

Table 11 – Number of Households

	One-Year Goal	Actual
Number of households supported through Rental Assistance	0	0
Number of households supported through The Production of New Units	100	0
Number of households supported through Rehab of Existing Units	10	0
Number of households supported through Acquisition of Existing Units	2	0
Total	112	0

Table 12 – Number of Households Supported

Discuss the difference between goals and outcomes and problems encountered in meeting these goals.

Do to the lack of prior funding and late receipt of 2024 funding allocations, the CDBG funded project for rehabilitating a public facility, Katie Dabbs Community Center was not able to move forward by the end of the fiscal year. The construction bids for the project was advertised in early 2025 with bids to be received and possible start of construction in spring 2025.

Goals are set taking into consideration a certain unknown in the number of applications the City may receive for Down Payment Assistance, housing rehabilitation or in the type of CHDO projects that may come forward in the application process. Due to high interest rates, increased housing costs and construction costs, maintain and or producing affordable housing is increasingly out of range for low and moderate income residents to afford and extra cost to bring a house up to code under the HOME regulations. Actual grant and funding was received at the end of September 2024 and no funds were expended during fiscal year 2024.

Discuss how these outcomes will impact future annual action plans.

Due to high interest rates, increased housing costs and construction costs, maintain and or producing affordable housing is increasingly out of range for low and moderate income residents to afford and extra cost to bring a house up to code under the HOME regulations. Unfortunately, it is anticipated that the conditions will be greater for the upcoming 2025 year. Actual grant and funding was received at the end of September 2024 and no funds were expended during fiscal year 2024.

Include the number of extremely low-income, low-income, and moderate-income persons served by each activity where information on income by family size is required to determine the eligibility of the activity.

Number of Households Served	CDBG Actual	HOME Actual
Extremely Low-income	0	0
Low-income	0	0
Moderate-income	0	0
Total	0	0

Table 13 – Number of Households Served

Narrative Information

optional

CR-25 - Homeless and Other Special Needs 91.220(d, e); 91.320(d, e); 91.520(c)

Evaluate the jurisdiction's progress in meeting its specific objectives for reducing and ending homelessness through:

Reaching out to homeless persons (especially unsheltered persons) and assessing their individual needs

The Southeast Coalition on Homelessness, which consists of Mississippi United to End Homelessness (MUTEH), ASC Hattiesburg, USM Institute Of Disability Studies, and SSFV, in partnership with the city, local providers and homeless advocates, continues to work to impact homeless individuals through a number of positive ways. The network has increased knowledge of services available which in turn allows agencies, the faith community, and advocates to concentrate on how a specific individual can be uplifted. The Coalition acts as the regional committee for the Balance of State Continuum of Care (CoC) and as such, coordinating the annual Point In Time (PIT) homeless count for the area. Additionally, surveys are conducted with detailed questions regarding the variety of services accessed, needed, or denied. The Southeast Coalition leadership uses this valuable information to feed advocacy and awareness. Each agency providing service in the Hattiesburg area is linked to Mississippi United to End Homelessness (Balance of State) which is continuing to work toward a coordinated system of referrals. The members of the Southeast Coalition advocate for funding that will help move homeless people into housing quickly through the CoC Rapid Re-housing Program and other funding mechanisms. Community survey feedback, along with the needs assessment/gap analysis conducted for the City's HOME-ARP Allocation Plan, support the establishment of non-congregate shelter to aid in addressing the needs of homeless persons in the community.

Members of the Southeast Coalition include agencies that represent a broad continuum of services - emergency shelter, day shelter, food kitchens, faith-based, transitional shelter, disabled services, veterans' housing, domestic violence shelter, healthcare, and permanent supportive housing. Each agency through the Coalition is connected to what is available and what is not. Annual awareness events such as Veteran's Stand Down and Homeless Memorial by the Coalition members provide continuing access to homeless persons and those at high risk of being homeless.

2024 Point in Time Homeless Count (Forrest County) (Provided by Mississippi Balance of State Continuum of Care).

- A total of 184 persons counted. 15 were under the age of 18, the largest number was 52 adults ages 35 to 44, and 45 adults ages 45 to 54. 39 were identified as chronically homeless.
- Households with at least one adult and one child – 6 households (21 persons, of which 15 were under age 18). Gender was identified as 13 females and 8 males. Race was 8 White, 13 Black/African American, no Hispanic/Latin.
- Households without children – 161, with a total of 163 persons. The largest number was 49 adults ages 35 to 44 and 44 adults aged 45 to 54. Gender identified as 51 females and 110

males. Race was 80 White, 74 Black, African American, 0 Asian, and 1 multiple races. 2 Black/African American and Hispanic/Latino. 39 persons were identified as chronically homeless.

- Veterans – No veterans persons were identified during this point in time.

Addressing the emergency shelter and transitional housing needs of homeless persons

The City of Hattiesburg does not receive Emergency Shelter Grant (ESG) allocation but provides input regularly use of ESG funds to benefit emergency shelter and transitional housing needs within the City. The CoC, Southeast Coalition, provides Rapid Rehousing to help chronically homeless individuals and families obtain and maintain housing. In addition to case management and other financial assistance to help an individual become stable and have long-term success.

The City will continue to coordinate and strategize with local agencies and community partners to respond to homelessness and transition to permanent housing.

Helping low-income individuals and families avoid becoming homeless, especially extremely low-income individuals and families and those who are: likely to become homeless after being discharged from publicly funded institutions and systems of care (such as health care facilities, mental health facilities, foster care and other youth facilities, and corrections programs and institutions); and, receiving assistance from public or private agencies that address housing, health, social services, employment, education, or youth needs

During 2024 The City of Hattiesburg continued working with MUTEH, the Southeast Coalition on Homelessness, the Lighthouse Rescue Mission, ASC-Hattiesburg, and other housing assistance providers to help meet the housing and supportive service needs of extremely low income individuals and families and those who are being discharged from publicly funded institutions and systems of care, such as health care facilities, mental health facilities, foster care and other youth facilities, and corrections programs and institutions receiving assistance from public or private agencies that address housing, health, social services, employment, education, or youth so they may avoid becoming homeless.

In 2024, the City continued working with the Mississippi Regional Housing Authority VIII to expand the number of housing assistance vouchers available to the homeless and near homeless in Hattiesburg and will support the Hattiesburg Housing Authority's project to rehabilitate Briarfield Homes, a multifamily public housing development.

Helping homeless persons (especially chronically homeless individuals and families, families with children, veterans and their families, and unaccompanied youth) make the transition to permanent housing and independent living, including shortening the period of time that individuals and families experience homelessness, facilitating access for homeless individuals and families to affordable housing units, and preventing individuals and families who were

recently homeless from becoming homeless again

Continuum of Care (CoC), and its respective agencies are well tuned in with the needs of the homeless community and coordinates to the extent feasible, given limited resources, to identify and serve individuals that may be discharged from publicly funded institutions. Since 2013, there has not been one case of a publicly funded shelter for the chronically homeless.

CR-30 - Public Housing 91.220(h); 91.320(j)

Actions taken to address the needs of public housing

The Hattiesburg Housing Authority manages 296 Public Housing units in the City of Hattiesburg.

The City of Hattiesburg provides and receives input to the Hattiesburg Housing Authority on area of interest to/for residents and tenants. This is used as an opportunity to encourage residents to learn about opportunities available such as: homebuyer and homeownership assistance, fair housing, and financial literacy programs within the community.

The Hattiesburg Housing Authority (HHA) seeks to replace many of its older units in the coming years, including Briarfield Homes, a 108-unit complex, originally constructed in 1942, with no major renovations since construction. The city supports the Housing Authority plans for redevelopment of its site and housing units, to provide affordable housing for it's low-income citizens.

Through Mississippi Regional Housing Authority VIII, recipients of Section 8 assistance receive assistance and guidance to families that desire to become self-sufficient with emphasis on job training, child care, GED classes, case management, and financial literacy.

Actions taken to encourage public housing residents to become more involved in management and participate in homeownership

The Hattiesburg Housing Authority will continue to host monthly resident meetings at each of its developments to engage its residents. Guest speakers bring residents valuable information related to the City, the schools, civic service agencies, or others as may be pertinent. The Housing Authority continues to host National Night Out Against Crime events and use them as an opportunity to engage residents.

The City of Hattiesburg continues to require, as a component of its Down Payment Assistance Program, homebuyer education requirements, which are available to attendees at no or minimal cost through various agencies. The city will continue to work with public housing management to encourage homeownership options through down payment assistance and general self-sufficiency training.

Additional programs include:

- Aldergate Mission: Provides after-school tutoring and a summer program free of charge for Hattiesburg Housing Authority residents at Briarfield. Also offers free meals for residents.
- Grace Temple: Runs the Bridges program, working with youth at Hope Drive for after-school tutoring.

Monthly resident meetings with outside training and coaching for self-sufficiency training.

Actions taken to provide assistance to troubled PHAs

The Hattiesburg Housing Authority and Mississippi Regional Housing Authority VIII are not "troubled" PHAs.

CR-35 - Other Actions 91.220(j)-(k); 91.320(i)-(j)

Actions taken to remove or ameliorate the negative effects of public policies that serve as barriers to affordable housing such as land use controls, tax policies affecting land, zoning ordinances, building codes, fees and charges, growth limitations, and policies affecting the return on residential investment. 91.220 (j); 91.320 (i)

The City's zoning ordinance and related regulations are conducive to affordable housing development. As public policies are concerned, the only notable barrier to affordable housing is developing within flood zones where FEMA regulations create limitations on the value and costs of rehabilitation that can take place on existing structures and requirements found at 40 CFR and 24 CFR part 58 often resulting in the inability of the city to provide service to those who ironically have the greatest need. Historically, new affordable housing has not been created in flood zones when using CDBG or HOME funds because of the challenges of meeting the development requirements. The City has communicated to partner agencies and CHDOs that such new developments are possible given compliance with certain development and insurance requirements.

Actions taken to address obstacles to meeting underserved needs. 91.220(k); 91.320(j)

Funding awarded to the city via the American Rescue Plan (HOME-ARP), proposes to address underserved needs of qualifying populations based on collaboration with the CoC and results of a needs assessment/gap analysis. The results of the analysis support the establishment of non-congregate shelter(s). The City's HOME-ARP Allocation Plan was submitted, and HUD approved. During the 2023 program year, the City contracted with Local Impact Analytic to conduct a needs assessment and gap analysis for the usage of the funds. No funds were expended in 2024.

Actions taken to reduce lead-based paint hazards. 91.220(k); 91.320(j)

The City was awarded grant funding from the Office of Lead Hazard Control and Healthy Homes to help mitigate the expense for lead remediation or implementation of interim controls for households with children under age six with elevated blood lead levels (EBLL) and the elderly. Since implementation of LeadSafe Hattiesburg, the program has been challenged with eligible households completing required documentation. To combat, LeadSafe Hattiesburg has partnered with Environmental Protection Agency (EPA) and Mississippi Department of Environmental Quality (MDEQ), to train community members on the hazards of lead and assist with community education and outreach. A new LeadSafe Manager was hired in May 2024, and propose assisting up to 5 homes per quarter beginning in the first quarter of the next program year.

Actions taken to reduce the number of poverty-level families. 91.220(k); 91.320(j)

The City continues its partnership with Breakthrough Community Services and Habitat for Humanity to identify families and individuals in poverty and/or those without the means to make emergency repairs

to their homes. The Pinebelt Coalition on Homelessness carries on administering its meal program for LMI and disabled persons. The Domestic Abuse Family Shelter, continues to house and provide supportive services to victims of domestic violence. The AIDS Services Coalition is continuing its mission to provide housing, nutrition, and other supportive services to those living with HIV/AIDS.

Actions taken to develop institutional structure. 91.220(k); 91.320(j)

The city participates in the quarterly CRA Advisory Board meetings, as well as quarterly Housing Roundtables through which different housing and social service organizations collaborate to address housing challenges.

Actions taken to enhance coordination between public and private housing and social service agencies. 91.220(k); 91.320(j)

The city recognizes the important and critical aspect of enhancing coordination between public and private housing and social service agencies. In the past, the city has hosted a series of town hall meetings in neighborhoods throughout the city including directors from various city departments as well as the Mayor's office. The Administration and Urban Development in particular have regular contact with the larger property manager firms in the city. These activities and relationships have created opportunities in which referrals for service(s) or other appropriate introductions can be made. The City has transitioned back to in-person public hearings for the Community Development Division.

Identify actions taken to overcome the effects of any impediments identified in the jurisdictions analysis of impediments to fair housing choice. 91.520(a)

The City has partnered with the Mississippi Home Corporation and other Entitlements and PHA's in the state to conduct and prepare a joint and collaborative Analysis of Impediments completed mid-2019.

The City has required beneficiaries of the Downpayment Assistance program to take a homebuyer education course prior to approval for an award since 2018 and will continue the practice. CDBG and HOME Programs continue to focus most of its resources on housing programs; emergency repairs and homeowner occupied rehabilitation; addressing code compliance and the lack of code standard housing to the greatest extent possible; some of the City's partner agencies continue to offer credit counseling and homebuyer education, thereby addressing credit worthiness and fair housing education.

CR-40 - Monitoring 91.220 and 91.230

Describe the standards and procedures used to monitor activities carried out in furtherance of the plan and used to ensure long-term compliance with requirements of the programs involved, including minority business outreach and the comprehensive planning requirements

Annually, the City monitors any subrecipient and CHDO that had open and active agreements with the City of Hattiesburg in the course of that year.

During 2024, the City monitored Breakthrough Community Services, for CHDO and as subrecipient for prior year(s) funding. A copy of the monitoring report is on file with the Community Development Division. The program did not utilize any expenses during the current program year.

The City did not have any current agreements/contracts with any public service agencies or CHDO's during the 2024 program year.

The process is as follows: City staff contacts organizations in need of monitoring at least a couple of weeks in advance to schedule an agreeable date for a monitoring visit. Following the monitoring visit, the organization is provided a written response, including any concerns, findings, and any follow-up action required with appropriate deadlines for response. The City and the organization remain in contact on the matter until any findings are resolved. A schedule for project monitoring has been created.

The City generally monitors its CDBG subrecipients on an annual basis in compliance with HUD's "Managing CDBG - Subrecipient Oversight" guide and uses the guide's subrecipient agreement checklist to ensure each subrecipient agreement complies with HUD requirements. The City's HOME monitoring process includes assurance of proper funds management, compliance with HOME regulations, and documentation of program effectiveness. The City's process has two components. On-site monitoring and Quarterly desk review. HOME funds used for acquisition, new construction or rehabilitation of affordable rental housing will be monitored on an annual basis by the City to ensure compliance in occupancy, rent restrictions, affordability requirements and property standards.

In addition to formal monitoring visits, the City is afforded the opportunity to monitor throughout the course of activities through environmental review, review of work specifications, review of documentation accompanying draw requests, and on site inspections that can help confirm that requests for draws are proportionate to the amount of work completed.

Citizen Participation Plan 91.105(d); 91.115(d)

Describe the efforts to provide citizens with reasonable notice and an opportunity to comment on performance reports.

The City of Hattiesburg complies with our Citizen Participation Plan, which contains the City's policies and procedures for public involvement in the CAPER. The City's plan dictates a 15-day comment period prior to City Council approval of the CAPER.

A public notice was approved by council to be published in the Hattiesburg Post on February 6, 2025, alerting the public that a draft CAPER was available for review. The notice described that a public hearing was set for February 25, 2025 at 6:00 p.m. at the Train Depot Community Room, 308 Newman Street, Hattiesburg, MS, and public comments will be accepted from February 26, 2025 to March 12, 2025. The notice also provided that the draft and comment sheets were available on the city's website at www.hattiesburgms.com/communitydevelopment and physically at City Hall and the Community Development Division at 200 Forrest Street, Hattiesburg, MS. This notification and hearing comply with the Citizen Participation Plan requirement that a 15-day period be afforded for public review and comment on the CAPER.

Public Hearing February 25, 2025 6:00 p.m. Oral and Written Comments on the CAPER

CR-45 - CDBG 91.520(c)

Specify the nature of, and reasons for, any changes in the jurisdiction's program objectives and indications of how the jurisdiction would change its programs as a result of its experiences.

The City did not have any substantial changes to the jurisdiction's program objectives during the program year. Any substantial changes will be process through the City Substantial Amendment Process as developed though the Citizen Participation Plan, which includes a public hearing and 30-day public notice of proposed changes and reasons for proposed changes with approval through HUD state office.

Does this Jurisdiction have any open Brownfields Economic Development Initiative (BEDI) grants?

No

[BEDI grantees] Describe accomplishments and program outcomes during the last year.

CR-50 - HOME 24 CFR 91.520(d)

Include the results of on-site inspections of affordable rental housing assisted under the program to determine compliance with housing codes and other applicable regulations

Please list those projects that should have been inspected on-site this program year based upon the schedule in 24 CFR §92.504(d). Indicate which of these were inspected and a summary of issues that were detected during the inspection. For those that were not inspected, please indicate the reason and how you will remedy the situation.

The City did not have any rental housing inspections due in 2024.

Provide an assessment of the jurisdiction's affirmative marketing actions for HOME units. 24 CFR 91.520(e) and 24 CFR 92.351(a)

The City of Hattiesburg continues to comply with requests made as it relates to affirmative marketing. Specific steps include periodic review of the city's wait list for housing rehabilitation work in an effort to find opportunity to purge the list when possible, and periodically reopen periods of time in which new applicants can be added. Steps have included staff, subrecipient, and CHOO training as it relates to fair housing, affirmative marketing, and limited English proficiency actions. Additionally, the City's updated Down Payment Assistance program brochure continues to be used in the marketing strategy to promote the program and create educational opportunities related to fair housing.

Refer to IDIS reports to describe the amount and use of program income for projects, including the number of projects and owner and tenant characteristics

The City of Hattiesburg neither received nor used any program income in 2024.

Describe other actions taken to foster and maintain affordable housing. 24 CFR 91.220(k) (STATES ONLY: Including the coordination of LIHTC with the development of affordable housing). 24 CFR 91.320(j)

Making affordable housing available to qualified applicants remains a priority of the City. The City continues facing post COVID challenges in engaging qualified eligible contractors (QECs) for program participation. Through program evaluation, COD developed and anticipates the ongoing offering of its emergency roof projects and anticipates the ability to provide assistance to more qualified applicants by focusing more on smaller rehabs and emergency repair projects.

The City continues support of the Hattiesburg Housing Authority in its pursuit of the reconstruction of the Briarfield Homes, an affordable housing development in line with the

City's Consolidated and Annual Action Plans. Creating and making affordable housing opportunities available to qualified applicants in the City of Hattiesburg remains a priority. Marketing materials in keeping with the Affirmative Fair Housing Marketing Plan were implemented in 2020 to get the DPA program active again and have been maintained throughout 2024. Unfortunately, with the current economy driving up interest rates, housing costs and the price of food, rent and construction materials among other things, the City will continue working to improve the conditions and expand the local inventory of affordable housing in Hattiesburg.

CR-58 – Section 3

Identify the number of individuals assisted and the types of assistance provided

Total Labor Hours	CDBG	HOME	ESG	HOPWA	HTF
Total Number of Activities	0	0	0	0	0
Total Labor Hours	0	0			
Total Section 3 Worker Hours	0	0			
Total Targeted Section 3 Worker Hours	0	0			

Table 14 – Total Labor Hours

Qualitative Efforts - Number of Activities by Program	CDBG	HOME	ESG	HOPWA	HTF
Outreach efforts to generate job applicants who are Public Housing Targeted Workers	0	0			
Outreach efforts to generate job applicants who are Other Funding Targeted Workers.	0	0			
Direct, on-the job training (including apprenticeships).	0	0			
Indirect training such as arranging for, contracting for, or paying tuition for, off-site training.	0	0			
Technical assistance to help Section 3 workers compete for jobs (e.g., resume assistance, coaching).	0	0			
Outreach efforts to identify and secure bids from Section 3 business concerns.	0	0			
Technical assistance to help Section 3 business concerns understand and bid on contracts.	0	0			
Division of contracts into smaller jobs to facilitate participation by Section 3 business concerns.	0	0			
Provided or connected residents with assistance in seeking employment including: drafting resumes, preparing for interviews, finding job opportunities, connecting residents to job placement services.	0	0			
Held one or more job fairs.	0	0			
Provided or connected residents with supportive services that can provide direct services or referrals.	0	0			
Provided or connected residents with supportive services that provide one or more of the following: work readiness health screenings, interview clothing, uniforms, test fees, transportation.	0	0			
Assisted residents with finding child care.	0	0			
Assisted residents to apply for, or attend community college or a four year educational institution.	0	0			
Assisted residents to apply for, or attend vocational/technical training.	0	0			
Assisted residents to obtain financial literacy training and/or coaching.	0	0			
Bonding assistance, guaranties, or other efforts to support viable bids from Section 3 business concerns.	0	0			
Provided or connected residents with training on computer use or online technologies.	0	0			
Promoting the use of a business registry designed to create opportunities for disadvantaged and small businesses.	0	0			
Outreach, engagement, or referrals with the state one-stop system, as designed in Section 121(e)(2) of the Workforce Innovation and Opportunity Act.	0	0			
Other.	0	0			

Table 15 – Qualitative Efforts - Number of Activities by Program

Narrative

The City of Hattiesburg did not have any commercial or housing projects that meet the threshold requirements of Section 3 regulations. The homeowner emergency housing repair program was individual homeowner residential projects bid out to individual contractors.



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PART I: SUMMARY OF CDBG RESOURCES

01 UNEXPENDED CDBG FUNDS AT END OF PREVIOUS PROGRAM YEAR	1,373,362.67
02 ENTITLEMENT GRANT	542,388.00
03 SURPLUS URBAN RENEWAL	0.00
04 SECTION 108 GUARANTEED LOAN FUNDS	0.00
05 CURRENT YEAR PROGRAM INCOME	0.00
05a CURRENT YEAR SECTION 108 PROGRAM INCOME (FOR SI TYPE)	0.00
06 FUNDS RETURNED TO THE LINE-OF-CREDIT	0.00
06a FUNDS RETURNED TO THE LOCAL CDBG ACCOUNT	0.00
07 ADJUSTMENT TO COMPUTE TOTAL AVAILABLE	0.00
08 TOTAL AVAILABLE (SUM, LINES 01-07)	1,915,750.67

PART II: SUMMARY OF CDBG EXPENDITURES

09 DISBURSEMENTS OTHER THAN SECTION 108 REPAYMENTS AND PLANNING/ADMINISTRATION	12,211.58
10 ADJUSTMENT TO COMPUTE TOTAL AMOUNT SUBJECT TO LOW/MOD BENEFIT	0.00
11 AMOUNT SUBJECT TO LOW/MOD BENEFIT (LINE 09 + LINE 10)	12,211.58
12 DISBURSED IN IDIS FOR PLANNING/ADMINISTRATION	110,017.22
13 DISBURSED IN IDIS FOR SECTION 108 REPAYMENTS	0.00
14 ADJUSTMENT TO COMPUTE TOTAL EXPENDITURES	0.00
15 TOTAL EXPENDITURES (SUM, LINES 11-14)	122,228.80
16 UNEXPENDED BALANCE (LINE 08 - LINE 15)	1,793,521.87

PART III: LOWMOD BENEFIT THIS REPORTING PERIOD

17 EXPENDED FOR LOW/MOD HOUSING IN SPECIAL AREAS	0.00
18 EXPENDED FOR LOW/MOD MULTI-UNIT HOUSING	0.00
19 DISBURSED FOR OTHER LOW/MOD ACTIVITIES	12,211.58
20 ADJUSTMENT TO COMPUTE TOTAL LOW/MOD CREDIT	0.00
21 TOTAL LOW/MOD CREDIT (SUM, LINES 17-20)	12,211.58
22 PERCENT LOW/MOD CREDIT (LINE 21/LINE 11)	100.00%

LOW/MOD BENEFIT FOR MULTI-YEAR CERTIFICATIONS

23 PROGRAM YEARS(PY) COVERED IN CERTIFICATION	PY: 2024 PY: PY:
24 CUMULATIVE NET EXPENDITURES SUBJECT TO LOW/MOD BENEFIT CALCULATION	0.00
25 CUMULATIVE EXPENDITURES BENEFITTING LOW/MOD PERSONS	0.00
26 PERCENT BENEFIT TO LOW/MOD PERSONS (LINE 25/LINE 24)	0.00%

PART IV: PUBLIC SERVICE (PS) CAP CALCULATIONS

27 DISBURSED IN IDIS FOR PUBLIC SERVICES	0.00
28 PS UNLIQUIDATED OBLIGATIONS AT END OF CURRENT PROGRAM YEAR	0.00
29 PS UNLIQUIDATED OBLIGATIONS AT END OF PREVIOUS PROGRAM YEAR	0.00
30 ADJUSTMENT TO COMPUTE TOTAL PS OBLIGATIONS	0.00
31 TOTAL PS OBLIGATIONS (LINE 27 + LINE 28 - LINE 29 + LINE 30)	0.00
32 ENTITLEMENT GRANT	542,388.00
33 PRIOR YEAR PROGRAM INCOME	0.00
34 ADJUSTMENT TO COMPUTE TOTAL SUBJECT TO PS CAP	0.00
35 TOTAL SUBJECT TO PS CAP (SUM, LINES 32-34)	542,388.00
36 PERCENT FUNDS OBLIGATED FOR PS ACTIVITIES (LINE 31/LINE 35)	0.00%

PART V: PLANNING AND ADMINISTRATION (PA) CAP

37 DISBURSED IN IDIS FOR PLANNING/ADMINISTRATION	110,017.22
38 PA UNLIQUIDATED OBLIGATIONS AT END OF CURRENT PROGRAM YEAR	0.00
39 PA UNLIQUIDATED OBLIGATIONS AT END OF PREVIOUS PROGRAM YEAR	0.00
40 ADJUSTMENT TO COMPUTE TOTAL PA OBLIGATIONS	0.00
41 TOTAL PA OBLIGATIONS (LINE 37 + LINE 38 - LINE 39 +LINE 40)	110,017.22
42 ENTITLEMENT GRANT	542,388.00
43 CURRENT YEAR PROGRAM INCOME	0.00
44 ADJUSTMENT TO COMPUTE TOTAL SUBJECT TO PA CAP	0.00
45 TOTAL SUBJECT TO PA CAP (SUM, LINES 42-44)	542,388.00
46 PERCENT FUNDS OBLIGATED FOR PA ACTIVITIES (LINE 41/LINE 45)	20.28%



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LINE 17 DETAIL: ACTIVITIES TO CONSIDER IN DETERMINING THE AMOUNT TO ENTER ON LINE 17

No data returned for this view. This might be because the applied filter excludes all data.

LINE 18 DETAIL: ACTIVITIES TO CONSIDER IN DETERMINING THE AMOUNT TO ENTER ON LINE 18

No data returned for this view. This might be because the applied filter excludes all data.

LINE 19 DETAIL: ACTIVITIES INCLUDED IN THE COMPUTATION OF LINE 19

Plan Year	IDIS Project	IDIS Activity	Voucher Number	Activity Name	Matrix Code	National Objective	Drawn Amount
2021	2	1515	6946871	Project Delivery in Support of CDBG Rehab Activities	14H	LMH	\$12,211.58
					14H	Matrix Code	\$12,211.58
Total							\$12,211.58

LINE 27 DETAIL: ACTIVITIES INCLUDED IN THE COMPUTATION OF LINE 27

No data returned for this view. This might be because the applied filter excludes all data.

LINE 37 DETAIL: ACTIVITIES INCLUDED IN THE COMPUTATION OF LINE 37

Plan Year	IDIS Project	IDIS Activity	Voucher Number	Activity Name	Matrix Code	National Objective	Drawn Amount
2021	1	1514	6896180	CDBG Program Administration	21A		\$1,977.32
2021	1	1514	6946868	CDBG Program Administration	21A		\$2,075.46
2022	1	1520	6975953	CDBG PAC (Program Administration Cost)	21A		\$24,532.26
2022	1	1520	6975955	CDBG PAC (Program Administration Cost)	21A		\$30,450.62
2023	8	1524	6976084	CDBG PAC (Program Administration Cost)	21A		\$4,088.48
2023	8	1524	6976087	CDBG PAC (Program Administration Cost)	21A		\$4,198.03
2023	8	1524	6976088	CDBG PAC (Program Administration Cost)	21A		\$4,202.28
2023	8	1524	6976090	CDBG PAC (Program Administration Cost)	21A		\$3,624.66
2023	8	1524	6976093	CDBG PAC (Program Administration Cost)	21A		\$4,272.61
2023	8	1524	6976095	CDBG PAC (Program Administration Cost)	21A		\$5,468.84
2023	8	1524	6976097	CDBG PAC (Program Administration Cost)	21A		\$3,890.57
2023	8	1524	6976098	CDBG PAC (Program Administration Cost)	21A		\$4,137.72
2023	8	1524	6976101	CDBG PAC (Program Administration Cost)	21A		\$3,829.96
2023	8	1524	6976102	CDBG PAC (Program Administration Cost)	21A		\$3,757.75
2023	8	1524	6976103	CDBG PAC (Program Administration Cost)	21A		\$5,236.46
2023	8	1524	6976107	CDBG PAC (Program Administration Cost)	21A		\$4,274.20
					21A	Matrix Code	\$110,017.22
Total							\$110,017.22



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PART I: SUMMARY OF CDBG-CV RESOURCES

01 CDBG-CV GRANT	796,715.00
02 FUNDS RETURNED TO THE LINE-OF-CREDIT	0.00
03 FUNDS RETURNED TO THE LOCAL CDBG ACCOUNT	0.00
04 TOTAL CDBG-CV FUNDS AWARDED	796,715.00

PART II: SUMMARY OF CDBG-CV EXPENDITURES

05 DISBURSEMENTS OTHER THAN SECTION 108 REPAYMENTS AND PLANNING/ADMINISTRATION	151,954.91
06 DISBURSED IN IDIS FOR PLANNING/ADMINISTRATION	0.00
07 DISBURSED IN IDIS FOR SECTION 108 REPAYMENTS	0.00
08 TOTAL EXPENDITURES (SUM, LINES 05 - 07)	151,954.91
09 UNEXPENDED BALANCE (LINE 04 - LINE 8)	644,760.09

PART III: LOW/MOD BENEFIT FOR THE CDBG-CV GRANT

10 EXPENDED FOR LOW/MOD HOUSING IN SPECIAL AREAS	0.00
11 EXPENDED FOR LOW/MOD MULTI-UNIT HOUSING	0.00
12 DISBURSED FOR OTHER LOW/MOD ACTIVITIES	151,954.91
13 TOTAL LOW/MOD CREDIT (SUM, LINES 10 - 12)	151,954.91
14 AMOUNT SUBJECT TO LOW/MOD BENEFIT (LINE 05)	151,954.91
15 PERCENT LOW/MOD CREDIT (LINE 13/LINE 14)	100.00%

PART IV: PUBLIC SERVICE (PS) CALCULATIONS

16 DISBURSED IN IDIS FOR PUBLIC SERVICES	151,954.91
17 CDBG-CV GRANT	796,715.00
18 PERCENT OF FUNDS DISBURSED FOR PS ACTIVITIES (LINE 16/LINE 17)	19.07%

PART V: PLANNING AND ADMINISTRATION (PA) CAP

19 DISBURSED IN IDIS FOR PLANNING/ADMINISTRATION	0.00
20 CDBG-CV GRANT	796,715.00
21 PERCENT OF FUNDS DISBURSED FOR PA ACTIVITIES (LINE 19/LINE 20)	0.00%



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LINE 10 DETAIL: ACTIVITIES TO CONSIDER IN DETERMINING THE AMOUNT TO ENTER ON LINE 10

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LINE 11 DETAIL: ACTIVITIES TO CONSIDER IN DETERMINING THE AMOUNT TO ENTER ON LINE 11

No data returned for this view. This might be because the applied filter excludes all data.

LINE 12 DETAIL: ACTIVITIES INCLUDED IN THE COMPUTATION OF LINE 12

Plan Year	IDIS Project	IDIS Activity	Voucher Number	Activity Name	Matrix Code	National Objective	Drawn Amount
2019	9	1500	6446831	CV-CDBG Public Services Testing Center	05M	LMA	\$53,044.66
			6473066	CV-CDBG Public Services Testing Center	05M	LMA	\$27,809.88
			6486717	CV-CDBG Public Services Testing Center	05M	LMA	\$19,054.37
			6504302	CV-CDBG Public Services Testing Center	05M	LMA	\$7,079.18
			6511967	CV-CDBG Public Services Testing Center	05M	LMA	\$24,126.43
			6665548	CV-CDBG Public Services Testing Center	05M	LMA	\$11,080.86
		1504	6424666	CV-CDBG Public Services - Christian Services Rent/Utility Assistance	05Q	LMC	\$1,767.21
			6424669	CV-CDBG Public Services - Christian Services Rent/Utility Assistance	05Q	LMC	\$1,585.09
			6532736	CV-CDBG Public Services - Christian Services Rent/Utility Assistance	05Q	LMC	\$4,407.23
		1505	6428641	CV-CDBG Public Services - Breakthrough Rent/Utility Assistance	05Q	LMC	\$1,000.00
			6435465	CV-CDBG Public Services - Breakthrough Rent/Utility Assistance	05Q	LMC	\$1,000.00
Total							\$151,954.91

LINE 16 DETAIL: ACTIVITIES INCLUDED IN THE COMPUTATION OF LINE 16

Plan Year	IDIS Project	IDIS Activity	Voucher Number	Activity Name	Matrix Code	National Objective	Drawn Amount
2019	9	1500	6446831	CV-CDBG Public Services Testing Center	05M	LMA	\$53,044.66
			6473066	CV-CDBG Public Services Testing Center	05M	LMA	\$27,809.88
			6486717	CV-CDBG Public Services Testing Center	05M	LMA	\$19,054.37
			6504302	CV-CDBG Public Services Testing Center	05M	LMA	\$7,079.18
			6511967	CV-CDBG Public Services Testing Center	05M	LMA	\$24,126.43
			6665548	CV-CDBG Public Services Testing Center	05M	LMA	\$11,080.86
		1504	6424666	CV-CDBG Public Services - Christian Services Rent/Utility Assistance	05Q	LMC	\$1,767.21
			6424669	CV-CDBG Public Services - Christian Services Rent/Utility Assistance	05Q	LMC	\$1,585.09
			6532736	CV-CDBG Public Services - Christian Services Rent/Utility Assistance	05Q	LMC	\$4,407.23
		1505	6428641	CV-CDBG Public Services - Breakthrough Rent/Utility Assistance	05Q	LMC	\$1,000.00
			6435465	CV-CDBG Public Services - Breakthrough Rent/Utility Assistance	05Q	LMC	\$1,000.00
		Total					

LINE 19 DETAIL: ACTIVITIES INCLUDED IN THE COMPUTATION OF LINE 19

No data returned for this view. This might be because the applied filter excludes all data.



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CONSOLIDATED ANNUAL PERFORMANCE & EVALUATION REPORT (CAPER) COMMENT FORM

Community Development Block Grant [CDBG & HOME] Programs

Date: _____

Name: _____

Address: _____

Telephone: _____

Email: _____

Please provide any comments below on the City's Consolidated Annual Performance & Evaluation (CAPER) plan. Your comments are important and will be included in the 2024 CAPER and submitted to the U.S. Department of Housing and Urban Development (HUD). **Send written comments to the Community Development Division by March 12, 2025. Comments may be mailed or delivered to 200 Forrest Street or emailed to cdbg@hattiesburgms.com.**

Comments: _____

Use back of this form for additional comments, if necessary.

How did you hear about this meeting?

☐ Newspaper ☐ Social Media ☐ Flyer ☐ Word of Mouth ☐ Direct Mail

Please share your suggestions on improving the way these meetings are conducted:

City of Hattiesburg Department of Urban Development

200 Forrest Street • Hattiesburg, MS 39403 • 601.554.1006 • www.hattiesburgms.com



ATTACHMENTS

- Advertisement and Public Notices
- Proof of Publication
- Sign-In Sheet
- Agenda
- CAPER Information Sheet (distributed at Public Hearing)



PUBLIC HEARING NOTICE FOR THE 2024 CAPER

The City of Hattiesburg will conduct a public hearing for the 2024 Consolidated Annual Performance and Evaluation Report (CAPER). The purpose of the CAPER is to document how the City of Hattiesburg spent federal funds on housing and community development. The public hearing will allow residents to review the previous year's overall program performance.

**The public hearing will take place on
Tuesday, February 25, 2025 from 6:00—7:00 p.m.**

**The Train Depot
308 Newman Street, Hattiesburg, MS**

The City of Hattiesburg encourages citizen participation. Comment regarding the 2024 CAPER may be directed to the Community Development Division located at 200 Forrest Street, Hattiesburg, MS, 39402, or by email to cdbg@hattiesburgms.com.

Comments will be accepted from February 26, 2025 – March 12, 2025.





PUBLIC NOTICES

February 25, 2025 – PUBLIC HEARING

The City of Hattiesburg will conduct a public hearing for the 2024 Consolidated Annual Performance and Evaluation Report (CAPER). The purpose of the CAPER Hattiesburg spent federal funds on housing and community development. The public hearing will allow residents to review the previous year's overall program.

The public hearing will take place on Tuesday, February 25, 2025 from 6 – 7 p.m. at The Train Depot located at 308 Newman Street. The City of Hattiesburg encourages comment regarding the 2024 CAPER may be directed to the Community Development Division located at 200 Forrest Street, Hattiesburg, MS, 39402, or by email. Comments will be accepted from February 26, 2025 – March 12, 2025.

Hattiesburg Publishing, Inc.

525 North Main Street, Suite C. • Hattiesburg, MS 39403
(601) 268-2331 tel • (601) 268-2965 fax

Proof of Publication

THE STATE OF MISSISSIPPI, LAMAR COUNTY, FORREST COUNTY
Personally appeared before me, the undersigned person, representing The PineBelt NEWS, a weekly newspapers published in Lamar County and Forrest County, Mississippi, who, being duly sworn, says that the notice, a true copy of which is hereto annexed, appeared in the issues of said newspapers as follows:

Total # of Words: 369 Published 1 times

Date 1st Published: Feb. 6 Amt: 44.28

Date 2nd Published: _____ Amt: _____

Date 3rd Published: _____ Amt: _____

Date 4th Published: _____ Amt: _____

Date 5th Published: _____ Amt: _____

Subtotal Printer's Fee: 44.28

Proof of Publication Fee: 3.00

TOTAL: 47.28

(signed) Crystal Gorn
The PineBelt NEWS

Sworn to and subscribed before me in my Presence, this 6
day of February, 2025, a Notary Public in
and for the County of Lamar, State of Mississippi:

(signed) Jennifer Joy Street



FOR OFFICE USE ONLY:

- ☐ Em P: _____
- ☐ App: _____
- ☐ File Name: COH-2024 CAPER
- ☐ Invoice #: _____
- ☐ Inv. Crt/Mld: _____
- ☐ Pymt Rec.d: _____
- ☐ POP sent: _____

PUBLIC NOTICE

NOTICE OF PUBLIC HEARING AND COMMENT PERIOD FOR FISCAL YEAR 2024 CONSOLIDATED ANNUAL PERFORMANCE AND EVALUATION REPORT (CAPER)

Under the requirements of the U.S. Department of Housing and Urban Development's (HUD) Consolidated Plan regulations (24 CFR 91.520), the City of Hattiesburg (herein referred to as "the City") is providing notice of the availability of its Fiscal Year 2024 Consolidated Annual Performance and Evaluation Report (CAPER).

The CAPER covers activities funded by HUD's Community Development Block Grant (CDBG) and HOME Investment Partnerships (HOME) programs during the Fiscal Year 2024 (January 1, 2024 - December 31, 2024). The CAPER is due within 90 days of the close of the program year, which ends March 31, 2025, and the City is seeking public comments before it submits to HUD. The CAPER includes information on the prior years' federal grant funds containing a summary of programmatic accomplishments including a description of resources made available, the investment of available resources, the geographic distribution and location of assets, the program beneficiaries assisted, the actions taken to affirmatively further fair housing, and other actions indicated in the Consolidated plan and Action Plans.

A Public Hearing will be held on Tuesday, February 25, 2025, at 6:00 PM, at the Train Depot, Community Room, located at 308 Newman Street to solicit citizen comment and participation related to the 2024 CAPER. Citizen participation is encouraged.

The draft report is available for public review and comment from February 26, 2025, to March 12, 2025, at City Hall, 200 Forrest Street, Hattiesburg, MS 39403. Comments may also be mailed or delivered to the Community Development Division at City Hall, 200 Forrest Street, and/or emailed to cdhbg@hattiesburgms.com.

If you have any questions regarding this information, please contact the Department at (601) 554-1006. If English is not your first language and you need an interpreter or documents translated from English to your native language, please contact our office. Anyone requiring special accommodation in considering these proposals, providing related comments, or attending the public hearing is encouraged to contact the Department of Urban Development at (601) 554-1006 in sufficient advance of meetings to make arrangements.

CITY OF HATTIESBURG, MISSISSIPPI
BY: Kermas Eaton, CITY CLERK
(SEAL)

Toby Barker, Mayor
Published February 6, 2025

CITY OF HATTIESBURG PUBLIC HEARING SIGN-IN SHEET

Project: 2024 CAPER Public Hearing

Meeting Date: 02/25/2025

Facilitator: Dequandra Johnson/Karen McCarty

**Place/
Room:** The Train Depot

6pm

Name	Company / Ward #	Phone	E-Mail
Dequane Johnson	Cott / CTD		
Wiley Quind	Cott / U.D.		
Kassaymenlin	Cott / IDP		
Chiquile Dolisoo	Cott / CDS		
Ken Lester	Cott / CD		
Sharon McCarty	Consultant -		



**CITY OF HATTIESBURG PUBLIC HEARING
2024 CONSOLIDATED PERFORMANCE AND EVALUATION REPORT,
FOR HUD CDBG AND HOME ENTITLEMENT PRORAMS
Tuesday, February 25, 2025, 6:00 p.m.**

AGENDA

- I. Welcome and introduction – Karen McCarty, Consultant for the City of Hattiesburg**
- II. Overview of Community Development Block Grant (CDBG) and HOME Investment Partnership Entitlement Programs.**
- III. 2024 Consolidated Performance and Evaluation Report for CDBG and HOME.**
 - **Overview, Requirements, Deadlines, Timeliness**
 - CDBG Allocated Funding for 2024 \$ 542,388.00
 - HOME Allocated Funding for 2024 \$ 281,936.47

 - CDBG Expenditures during 2024 \$ 122,228.80
 - HOME Expenditures during 2024 \$ 53,752.17
- IV. Citizen Participation**

Oral and written input regarding the housing and non-housing community development needs of the City of Hattiesburg are appreciated and will be considered during development of the 2024 Annual Action Plans for CDBG and HOME Entitlement Programs.
- V. Conclusion**

Written comments for the 2024 CAPER may be mailed to the City of Hattiesburg Community Development Division/Urban Development, P.O. Box 1598 Hattiesburg, MS 39403, emailed to cdbg@hattiesburgms.org, or call (601) 554-1006. CAPER written and oral comments will be received until May 12, 2025



CITY OF HATTIESBURG
2024 CONSOLIDATED ANNUAL PERFORMANCE REPORT
FISCAL YEAR: JANUARY 1, 2024 TO DECEMBER 31, 2024

(Annual Review of Funding and Expenditures during the Program Year)

2024 CDBG GRANT ALLOCATION - \$542,388.00

(Funding received late September 2024)

Proposed 2024 CDBG Projects:

Public Facilities & Improvements (Katie Dabbs Center)	\$433,910.40
CDBG Administration (20%)	\$108,477.60

There were no projects that were started or completed utilizing 2024 CDBG funds as funding was not received until late September 2024. All projects and activities will commence during fiscal year 2025. There were no expenditure of CDBG funds for projects during the fiscal year.

CDBG funds expended during the fiscal year for prior year's administrative cost: \$122,228.80

CDBG-CV (COVID) Expenditures during fiscal 2024 utilizing prior year(s) funding.

No funding expended in 2024.

2024 HOME GRANT ALLOCATION: \$281,936.47

(Funding received late September 2024)

Proposed 2024 HOME Projects:

Rental Residential Rehabilitation Program	\$161,452.36
CHDO Set aside	\$ 42,290.47
Down-Payment Assistance	\$ 50,000.00
HOME Administration (10%)	\$ 28,193.64

There were no projects started or completed utilizing 2024 HOME funds as funding was received late September 2024. All projects and activities anticipate commence during fiscal year 2025.

HOME expenditures during fiscal year 2024 was for prior years administrative costs - \$53,752.17

HOME-ARP – There were no expenditures during fiscal year 2024.

City received \$1,075,484.00 as part of the American Rescue Plan Federal Funding in 2021. HUD has specific usage for this one-time funding and cannot be used with regular HOME funds. The city anticipates using the funds for construction or rehabilitation of housing for non-congregate shelter housing to assist individuals or households who are homeless, at risk of homelessness, and other vulnerable populations.



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Wiley Quinn, Urban Development Director
cc: Kermas Eaton, City Clerk
Date: Tuesday, March 18, 2025
Re: Approve and authorize publication of Notice for Request for Qualifications for Qualified Eligible Contractors for the City of Hattiesburg's CDBG/HOME Programs {Entitlement}.
File Number: 2025-185
Minute Book #

Summary

Approve and authorize publication of Notice for Request for Qualifications for Qualified Eligible Contractors for the City of Hattiesburg's CDBG/HOME Programs {Entitlement}.

Recommendation Statement

I recommend approval of this item.

Please place this on the March 18, 2025 City Council meeting for consideration.

NOTICE TO BIDDERS

NOTICE is hereby given that the City of Hattiesburg, Mississippi will receive Statements of Qualifications until 10:00 A.M., **Thursday, April 3, 2025**, in the City Clerk's Office in the City Hall for the following:

Qualified Eligible Contractors for the purposes of housing rehabilitation, housing repair, housing reconstruction and related activities as needed for a period ending December 31, 2027 for the Department of Urban Development – Community Development Division.

The above shall be delivered as per detailed specifications on file in the Office of the Clerk, P.O. Box 1898, 200 Forrest Street, Hattiesburg, Mississippi, 39403-1898, (601) 545-4552, which may be obtained upon request. Technical assistance is available to all interested parties by calling (601) 554-1006.

Each PROPOSAL must be received in a sealed envelope which is marked in the lower left-hand corner with the words "Request for Qualifications – Qualified Eligible Contractors" and the DATE OF BID OPENING ("Thursday, April 3, 2025").

The purpose of this solicitation is to establish a list of qualified eligible contractors who can participate in the city's CDBG and HOME programs. Respondents meeting the established criteria will be placed on a list of QECs in accordance with the City's Housing Rehabilitation/Reconstruction, and Housing Repair Grants Manual. Notwithstanding, the Council reserves the right to reject any or all bids received and to waive formalities.

PUBLISHED by Order of the Council on this, the 18th day of March 2025.

CITY OF HATTIESBURG, MISSISSIPPI

BY: Kermas Eaton
CITY CLERK

(SEAL)

Toby Barker, Mayor

PUBLISH Twice in the Legal Section: Thursday, March 20, 2025, Thursday, March 27, 2025.



URBAN DEVELOPMENT COMMUNITY DEVELOPMENT DIVISION

BID INSTRUCTIONS TO RESPONDENTS FOR CDBG AND HOME PROGRAM SERVICES

BID FORM

PROPOSAL FOR: **Qualified Eligible Contractors for the purposes of housing rehabilitation, housing repair, housing reconstruction and related activities as needed for a period ending December 31, 2027 for the Department of Urban Development - Community Development Division.**

Statements of Qualifications **will be received until 10 a.m. Thursday, April 3, 2025**, in the City Clerk's Office in the Hattiesburg City Hall located at 200 Forrest Street, P. O. Box 1898, Hattiesburg, MS 39403-1898. SOQs will be opened beginning at 10 a.m., **Thursday, April 3, 2025**.

Each PROPOSAL must be received in a sealed envelope which is marked in the lower left-hand corner with the words **"Request for Qualifications – Qualified Eligible Contractors" and the DATE OF BID OPENING ("Thursday, April 3, 2025")**.

For questions or clarifications, respondents should contact:

City Clerk
P. O. Box 1898
200 Forrest Street
Hattiesburg, MS 39403-1898
(601) 545-4552

The undersigned Respondent agrees to comply with and provide the following services to the City of Hattiesburg:

Respondent shall furnish contracting or construction services associated with CDBG housing rehabilitation, HOME housing rehabilitation, CDBG Emergency Repair, HOME Reconstruction and related activities.

Successful respondents shall furnish and supervise any personnel needed to perform any necessary activities related to said services.

Successful respondents shall furnish all tools and equipment necessary to perform said services. Respondents shall provide a detailed equipment list as part of the QEC Application and Checklist.



URBAN DEVELOPMENT COMMUNITY DEVELOPMENT DIVISION

Respondents must be licensed contractors with the State of Mississippi and the City of Hattiesburg by the deadline for submitting qualifications and must provide all the information indicated on the attached QEC Application and Checklist.

Responses will be reviewed by committee. Incomplete responses, failure to provide minimally required information, or evidence of ineligibility will result in a finding of non-qualification. For the respondents with completed applications that meet basic eligibility requirements, the committee will check references and review examples of work for work standards and quality of workmanship.

Successful respondents will be placed on a list of Qualified Eligible Contractors for the City's CDBG and HOME programs. For each related residential rehabilitation, repair or reconstruction project, contractors must submit bids based on a work write-up completed by the Department of Urban Development - Community Development Division staff. Only contractors on the list of Qualified Eligible Contractors may bid on these CDBG and HOME projects.

If there is no available contractor from the list, the City may use some other objective method of identifying contractors to complete the various related projects. Further, the City may use an alternative objective method of selecting contractors from the established list of QECs.

Successful respondents agree to comply with all federal, state, and city laws in performing the work contracted or assigned as a result of being placed on the City's list of QECs.

Successful respondents shall coordinate all work and related activities with the City's Department of Urban Development – Community Development Division. **Contractors must perform work as written on work write-ups. Changes to work write-ups will be made only by permission of Community Development staff. Any additional work completed without prior permission and proper inspection by Community Development staff will not be eligible for Change Order.**

Successful respondents agree to hold harmless and indemnify City from any and all liability and damages of any kind whatsoever resulting from participation in its CDBG and HOME programs.

It is understood that contractors may be removed from the list of QECs for failure to comply with terms and conditions herein or any other violation of any federal, state or local law and/or regulation.

Respondents shall provide all company information identified on the attached form and must include all required supporting documentation where requested.



URBAN DEVELOPMENT COMMUNITY DEVELOPMENT DIVISION

NAME OF COMPANY

STREET/P.O. BOX ADDRESS

CITY/STATE & ZIP CODE

PHONE NUMBER (DAY AND NIGHT)

FAX NUMBER

DATE OF BID

COMPANY OFFICIAL'S NAME & TITLE

COMPANY OFFICIAL'S SIGNATURE

SOCIAL SECURITY OR EMPLOYER ID NUMBER

DUNS NUMBER (required)

OFFICIAL'S SIGNATURE – I hereby acknowledge receipt of all bid instructions and agree, if selected, to abide by all program guidelines. I additionally acknowledge that *Housing Rehabilitation/Reconstruction and Housing Repair Grants Program Manual (Amended April 2022)* has been made available as a public record through the City of Hattiesburg's City Clerk's Office, and I am fully prepared to abide by the guidelines, policies, and procedures contained therein.



URBAN DEVELOPMENT COMMUNITY DEVELOPMENT DIVISION

APPLICATION FOR ELIGIBILITY FOR QUALIFIED CDBG/HOME PROGRAM GENERAL CONSTRUCTION CONTRACTOR

General Construction Contractors/Remodelers who are interested in participating in CDBG/HOME Programs should answer the questions below and submit the information as noted.

By completing this application and providing the information requested it is understood that any/all information will be verified and references will be checked.

Date of application: _____

1. Name of Company: _____

Name of owner/owners: _____

Address: _____

Telephone No. _____ Fax No: _____ E-mail address: _____

Name of Responsible Individual: _____

Address: _____

Telephone No: _____ Fax No: _____ E-mail address: _____

2. Have you ever been or are you currently an employee of the City of Hattiesburg? _____

If yes, please give the date(s) of employment _____

3. Please list all major equipment owned by you or your company.



- [illegible]

- A. Subcontractor Information (Please provide three subcontractor references).

-



URBAN DEVELOPMENT COMMUNITY DEVELOPMENT DIVISION

Telephone: _____ Fax: _____

2. Name of Subcontractor: _____

Type of work Subcontractor Performs: _____

Address: _____

Telephone: _____ Fax: _____

3. Name of Subcontractor: _____

Type of work Subcontractor Performs: _____

Address: _____

Telephone: _____ Fax: _____

B. Material Suppliers (Please provide two material supply references).

1. Name of Supplier: _____

Address: _____

Telephone: _____ Fax: _____

Type of Supplies: _____

2. Name of Supplier: _____

Address: _____



URBAN DEVELOPMENT COMMUNITY DEVELOPMENT DIVISION

Telephone: _____ Fax: _____

Type of Supplies: _____

C. *Prior Job References:

1. Owner of Property: _____

Address: _____

Telephone: _____ Fax: _____

Description of work Performed: _____

2. Owner of Property: _____

Address: _____

Telephone: _____ Fax: _____

Description of work Performed: _____

3. Owner of Property: _____

Address: _____

Telephone: _____ Fax: _____

Description of work Performed: _____



URBAN DEVELOPMENT COMMUNITY DEVELOPMENT DIVISION

CONTRACTOR'S APPLICATION CHECKLIST

Please include the following information with your application:

- ☐ Copy of Privilege Tax License
- ☐ Copy of State Contractor's License
- ☐ Copy of Liability Insurance
- ☐ Completed Permit Authorization Form (attached)
- ☐ Copy of Performance and Payment Bond, if applicable
- ☐ Copy of Workmen's Compensation **OR** a letter from your insurance agent that your company is not required to carry Workmen's Compensation Insurance

Applicant should NOT assume that previous submission of this information to the Department of Urban Development Community Development Division or any other city department is acceptable. Failure to include all requested documentation accompanying this application will constitute an incomplete application, and will be denied.

AUTHORIZATION FOR RELEASE OF INFORMATION

By my signature below I authorize the release of information by all subcontractors, references and others from the information supplied herein to the City of Hattiesburg Department of Urban Development – Community Development Division.

Company Name

Authorized Representative Signature

Printed Name of Authorized Signatory

Date



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Adam Moore, Grants Coordinator
cc: Hardy Sims, Chief of Police
Date: Tuesday, March 18, 2025
Re: Authorize submission of a grant application to the Mississippi Office of Homeland Security Grant Program.
File Number: 2025-203
Minute Book #

Summary

FY25 Mississippi Office of Homeland Security Grant Program

Recommendation Statement

I recommend authorization of the submission of a grant application to the Mississippi Office of Homeland Security Grant Program for funding of \$75,000. The City will provide matching funds in the amount of \$40,795.18 for a total project cost of \$115,795.18.

Please place this on the March 18, 2025 City Council meeting for consideration.



Mississippi Office of Homeland Security

Homeland Security Grant Program

Grant Application

DATE OF APPLICATION		03/12/2025	
NAME OF AGENCY		City of Hattiesburg, Hattiesburg Police Department	
MAILING ADDRESS		200 Forrest St	
CITY	Hattiesburg	ZIP CODE	39401
COUNTY	Forrest		
AGENCY CONTACT NAME	Adam Moore		
CONTACT PHONE NUMBER	(601) 416-1120		
CONTACT EMAIL ADDRESS	jmoore@hattiesburgms.com		
SIGNATORY AUTHORIZED OFFICIAL		Toby Barker, Mayor	
<i>(Name of Mayor, Board President, Commissioner, Head of Agency, etc.)</i>			
AUTHORIZED OFFICIAL EMAIL		mayor@hattiesburgms.com	
UEI NUMBER	N4XZJLJ9AVM1	EXP DATE	10/23/2025
<i>* Please provide a copy of UEI number and current status, as shown in SAM.gov.</i>			
CONGRESSIONAL DISTRICT		4th Congressional District	
GRANT APPLICANT FUNDING REQUEST BY COST CATEGORY			
COST CATEGORY		AMOUNT REQUESTED	
CONTRACTUAL SERVICES			
EQUIPMENT		\$ 75,000.00	
COMMODITIES/SUPPLIES			
OTHER			
TOTAL OF GRANT AMOUNT REQUESTED		\$ 75,000.00	

PROBLEM IDENTIFICATION & DESCRIPTION

AGENCY DEMOGRAPHIC INFORMATION

NUMBER OF SQUARE MILES	54
POPULATION	48,414
NUMBER OF AGENCY STAFF	93

AGENCY TYPE

☒	LAW ENFORCEMENT	☐	FIRE SERVICE	☐	EMERGENCY SERVICES/EMA
☒	CITY/COUNTY	☐	SCHOOL DISTRICT	☐	OTHER

II. AGENCY'S TOP TERRORISM THREAT & TERRORISM HAZARD

TERROISM THREAT is a technological or human caused occurrence by a individual, entity, or action that has or will cause potential to harm to life, information, operations, the environment and/or property.

BRIEFLY DESCRIBE THE AGENCY'S TOP TERRORISM THREAT

Loosely organized criminal operations targeting businesses and civilians. The City of Hattiesburg currently has approximately 45 different criminal street gangs operating inside the city limits, with roughly 1,259 documented members. These gang members conduct a wide variety of felony offenses to further their organizations and terrorize law abiding citizens to further their control. Acts of violence and theft are these organizations leading means of terrorism.

"TERROISM HAZARD" is a potentially dangerous or harmful threat that is can unwanted outcomes. Hazards can include threats of terrorism, bomb scares, bombings, use of chemical, nuclear, and radiological weapons. A hazard is an intent to cause mental or physical injury or death for the purpose of advancing a person, organization, or agenda of extreme fear and intimidation.

BRIEFLY DESCRIBE THE AGENCY'S TOP TERRORISM HAZARD

College football, basketball, baseball and soccer stadiums in the City of Hattiesburg will be the top hazard for terrorist activities in the jurisdiction. The University of Southern Mississippi's stadium alone houses the capacity for 36,000 persons and regularly hosts at least 22,000 per game. The William Carey University is also within the city limits and hosts a variety of sporting events. The City of Hattiesburg also hosts multiple celebratory events such as: Hubfest, Mobile Street Festival, New Years Eve celebration, 4th of July, Mardi Gras parade, and other regular outdoor concerts at local parks.

PREPAREDNESS GAPS

Provide a detailed description of any preparedness gaps that hinder your agency's ability to prevent, protect, mitigate, respond to, and recover from threats and hazards. Include in the following information in your response:

1. A clear identification of the Agency PREPAREDNESS GAP(s), include operational or resource(s) deficiencies of the agency.

The Hattiesburg Police Department only possesses pedestrian barricades with no means of stopping vehicular assaults.

2. The process or method used to identify the PREPAREDNESS GAP(s) (e.g., specific real-training events, training exercises, threat assessment, or after-action reports). Use specific data and provide examples to illustrate how these PREPAREDNESS GAP(s) have impacted your agency's operations.

The City of Hattiesburg hosts events such as: Mardi Gras parades, Hubfest, Mobile Street Festival, New Years Eve ball drop, races, and live at 5 downtown music festivals. These events, sometimes spanning a total of 3.1 miles, take place on main thoroughfares in the city (Main Street, Hardy Street), requiring these streets to be shut down. The Hattiesburg Police Department assesses where the placement of the 500 pedestrian barricades would be most beneficial, while taking risks with leaving other areas unsecured. With incidents such as the recent attack on Bourbon Street in New Orleans, the risk of vehicular assault on crowded streets is on the forefront of our concerns at these events.

3. Describe how the requested funding, resources, training, or equipment will increase your agency capabilities to address these PREPAREDNESS GAP(s).

This funding will be used to purchase a Meridian Archer Trailer Kit 1000. This kit includes: 8 Archer 1200 Barriers, 1 Archer Hauler 2.0, 2 Archer Field Tow Bars, 7 4ft. Archer Arrestor Cables, 1 Archer Rapid Gate Kit, 1 Archer Wayfinding Package, 7 ADA 3-channel Cable Covers, 1 Archer Hauler Mount, 2 ADA Cover Compartments, and Beam Gate Cradles. This equipment would allow HPD to better barricade public events and prevent the risk of vehicular assault on pedestrian crowded streets.

4. Explain how this project will support **TERRORISM PREPAREDNESS and RESPONSE for the agency?**

These Barriers are capable of stopping vehicles travelling at 40MPH within 7 feet, as well as provide protection against NATO rounds up to .50 cal. ball rounds. The wayfinding kits provide directional signage to provide safety and security during events and to further organize the flow of traffic without the additional use of police personnel. The implementation of this resource will allow the Hattiesburg Police Department the capability to address vehicular assaults and further protect its citizens from terroristic threats.

NATIONAL PRORITY

Please mark which National Priority that the Agency will support with funding received.

☒	COMMUNITY PREPAREDNESS	☐	INFORMATION & INTELLIGENCE SHARING
☐	CYBERSECURITY	☒	SOFT TARGETS/CROWDED PLACES
☐	ELECTION SECURITY	☒	VIOLENT EXTREMISM

MISSION AREA

Please mark which MISSION AREA that the Agency will support with funding received.

☒	PREVENTION	☐	RESPONSE
☒	PROTECTION	☐	RECOVERY
☒	MITIGATION		

GRANT BUDGET REQUEST

All information provided in the Grant Budget section is a request. There are no guarantees for funding. Funding may be partial. Please provided items based on priority and NEED. Items MUST be justifiable for the needs listed above for threats and hazards.

CONTRACTUAL SERVICES

Contractual Services should be requested for one (1) year of service only. All expenses must be in accordance to current state and federal guidelines. Agency should be prepared to be able to continue contractual services, if future awards or services are not approved.

Type of Contractual	Amount of Service	Quantity of Service	Total
NA			\$ 0.00
			\$ 0.00
			\$ 0.00
			\$ 0.00
			0.00
TOTAL CONTRACTUAL SERVICES			\$ 0.00

EQUIPMENT

*All equipment must be on the FEMA Authorized Equipment List (AEL). You can find the AEL at <https://www.fema.gov/grants/tools/authorized-equipment-list>. Equipment **MUST** be for terrorism based programs and activities. (See Funding Guidance for more information).*

FEMA AEL Number:	Description of Equipment:	Item Cost	Quantity	Equipment Total:
14SW-01-WALL	Meridian Archer Trailer Kit 1000	\$ 75,000.00	1	\$ 75,000.00
				\$ 0.00
				\$ 0.00
				\$ 0.00
				\$ 0.00
				\$ 0.00
				\$ 0.00
				\$ 0.00
TOTAL COST OF EQUIPMENT				\$ 75,000.00

COMMODITIES/SUPPLIES

Include a detailed assessment of other grant expenses within the program area in which you applying. Also, include a cost estimate for all additional grant expenses (e.g., gloves, traffic safety cones, flashlights, reflective safety vest, triage kits, etc.) All expense must be in accordance to current state and federal guidelines. These items are disposable and not equipment.

ITEM	ITEM COST	QUANTITY	TOTAL COST
			\$ 0.00
			\$ 0.00
			\$ 0.00
			\$ 0.00
			\$ 0.00
TOTAL COST OF COMMODITIES/SUPPLIES			\$ 0.00

OTHER EXPENSES

Additional items listed in this category must have detailed justification for requests. These items do not fall within any of the above listed categories.

Type of Expense	Item/Description	COST	TOTAL
Travel			
Travel			
Travel			
Travel			
Travel			
TOTAL OTHER EXPENSES			\$ 0.00

ADDITIONAL JUSTIFICATION FOR OTHER EXPENSES

	TOTAL AMOUNT REQUESTED	\$ 75,000.00
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PRIOR GRANT EXPERIENCE

Please answer YES or NO to the following questions.

	YES	NO
Has your agency received federal and/or state grants similar to the MOHS Grant?	☒	
Does your agency have at three (3) years of receiving federal grant funds? Does not have to be MOHS related.	☒	
Has your agency received MOHS Grant funds within the past three (3) years?	☒	
Has your agency ever received any corrective actions from a Audit Report?	☒	
Has the agency administration remained unchanged during the 2024 grant year? For example: (Chief, Sheriff, SGA, Financial Officer, Program Staff)	☒	
Can this project be completed by August 30, 2026?	☒	

AGENCY AUDIT

Non-federal organizations, which expend \$1,000,000.00 or more in federal funds during a fiscal year, will be required to have an audit performed in accordance with 2 CFR Part 200, Subpart F. Applicant **MUST** provide a copy of their latest audit report, if Applicant meets the funding threshold. Attach a copy of the latest audit to this Application.

	I certify that the Applicant's associated city/county/organization does <u>NOT</u> expect, to be required to have an audit performed under 2 CFR Part 200, Subpart F, for the above listed program.
☒	I certify that the Applicant's associated city/county/organization, <u>WILL BE</u> required to have an audit performed under 2 CFR Part 200, Subpart F. A copy of the audit report <u>MUST</u> be attached at the time of Application submission.

NIMS COMPLIANCE

As part of the Grant Application process, each agency **MUST** provide a copy of the NIMS Compliance certifications. This includes NIMS Certifications 100, 200, 700, 800, for a one (1) member of the agency. If a member of the agency needs to complete this training they can go to: <https://training.fema.gov/nims/>. Documentation **MUST** be attached at the time of Application submission.

APPLICATION SUBMISSION COMPLIANCE/ APPLICATION CONTACT

I certify that I am an employee of the aforementioned agency or have been hired by the agency to apply on their behalf for the Grant. All parties have knowledge and approved of the contents of this Application, Budget Request and all information provided within.

APPLICANT SIGNATURE

Adam Moore

APPLICANT NAME (PLEASE PRINT)

March 12, 2025

DATE

Grants Coordinator

APPLICANT TITLE



Mississippi Office of Homeland Security 2025 Homeland Security Grant Program Grant Funding Guidance



Schedule for FY25 Homeland Security Grant Program:

Key Announcements	Key Dates
Notice of Funding Release of FY25 Grant Funds	February 14, 2025
FY25 Grant Application Release	March 3, 2025
Grant Writing Sessions (Virtual)	March 10, 2025 @ 10:00 a.m. March 19, 2025 @ 1:00 p.m.
Application Deadline	March 31, 2025, by 5:00 p.m.
Application Review Period	April 2025-June 2025 Initial Risk/Financial Assessment Review (April) Peer Review (April) Executive Award Review (May)
Award Announcement	July 1, 2025 (Tentative)
Grant Orientation	August 2025
Grant Awards Released	At Implementation Meetings (Tentative)
Grant Packets Due and to be Returned to MOHS	October 15, 2025 (Tentative)
Grant Performance Period	September 1, 2025-August 31, 2026
Grant Closeout Deadline	November 1, 2026

Application packets will be available at the Mississippi Office of Homeland Security website <https://www.homelandsecurity.ms.gov/>. Grant Applications received after the due date **will not** be accepted for the allocation of funds but **may** be considered if funds become available within one (1) year.

Federal Award Overview:

Department of Homeland Security
FY2025 Homeland Security Grant Program
Assistance Listing Number (Formerly CFDA) 97.067
Federal Grant Period: 9/1/2025-8/31/2028
<https://www.fema.gov/grants/preparedness/homeland-security>

Program Objective:

The objective of the FY2025 HSGP is to fund state, local, tribal, and territorial efforts to prevent terrorism and prepare the Nation for threats and hazards that pose the greatest risk to the security of the United States.

Program Purpose:

The key focus and requirement of the HSGP is to prevent terrorism and other catastrophic events and to prepare the Nation for the threats and hazards that pose the greatest risk to security of the United States, including risks along the Nation’s borders. HSGP supports investments that improve the ability of jurisdictions nationwide to:

- Prevent a threat or an actual act of terrorism.
- Protect citizens, residents, visitors, and assets against the threats that pose the greatest risk to the security of the United States.
- Mitigate the loss of life and property by lessening the impact of future catastrophic events.
- Respond quickly to save lives, protect property and the environment, and meet basic human needs in the aftermath of a catastrophic incident; and/or
- Recover through a focus on the timely restoration, strengthening, accessibility, and revitalization of infrastructure, housing, and a sustainable economy, as well as the health, social, cultural, historic, and environmental fabric of communities affected by a catastrophic incident, and do so in a manner that engages the whole community while ensuring the protection of civil rights.

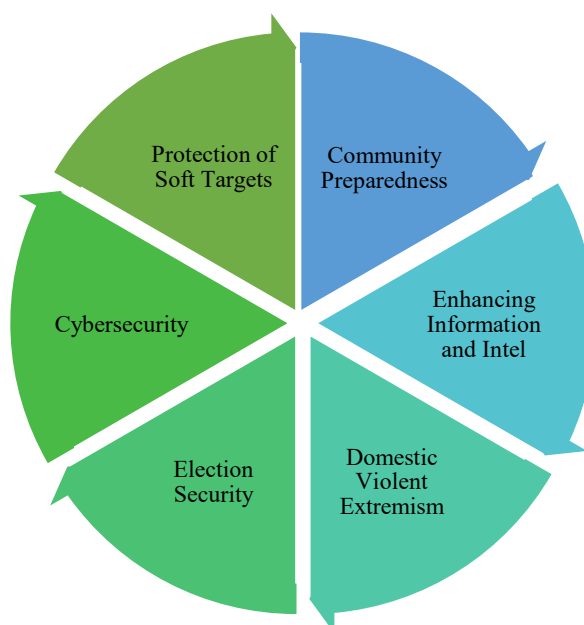
National Priorities:

The Mississippi Office of Homeland Security in its capacity of the SAA, works collaboratively with the DHS/FEMA in targeting specific projects within the HSGP award to use Homeland Security grant funds most effectively.

For the FY25 grant cycle, the national priority areas will be prioritized for funding to align with the DHS/FEMA National Priority areas, set by the Department of Homeland Security. All Applicants should prepare Applications with national priorities in mind.

National Priorities Areas, Core Capabilities, Lifelines and Example Projects:

Below please see an example list of each of the national priorities with examples of possible projects for each.



National Priorities Areas, Core Capabilities, Lifelines and Example Project Types

Priorities	Core Capabilities	Lifelines	Example Project Types
Enhancing Cybersecurity	• Cybersecurity • Intelligence and information sharing • Planning • Public information and warning • Operational coordination • Screening, search, and detection • Access control and identity verification • Supply chain integrity and security. • Risk management for protection programs and activities. • Long-term vulnerability reduction • Situational assessment • Infrastructure systems • Operational communications	Safety and Security	• Cybersecurity risk assessments • Migrating online services to the “.gov” internet domain • Projects that address vulnerabilities identified in cybersecurity risk assessments. • Improving cybersecurity of critical infrastructure to meet minimum levels identified by the Cybersecurity and Infrastructure Security Agency (CISA), and the National Institute of Standards and Technology Cybersecurity Framework • Cybersecurity training and planning
Enhancing the Protection of Soft Targets/ Crowded Places	• Operational coordination • Public information and warning • Intelligence and information sharing • Interdiction and disruption • Screening, search, and detection • Access control and identity verification • Physical protective measures • Risk management for protection programs and activities.	Safety and Security	• Operational overtime • Physical security enhancements • Closed-circuit television (CCTV) security cameras Security screening equipment for people and baggage Lighting Access controls Fencing, gates, barriers, etc. • Unmanned aircraft system detection technologies
Enhancing information and intelligence sharing and analysis	• Intelligence and information sharing • Interdiction and disruption • Planning • Public information and warning • Operational coordination	Safety and Security	• Fusion center operations (Fusion Center project will be required under this investment, no longer as a stand-alone investment) • Information sharing with all DHS components; fusion centers; other operational, investigative, and analytic entities; and other federal law enforcement and intelligence entities. • Cooperation with DHS officials and other entities designated by DHS in intelligence, threat recognition, assessment, analysis, and mitigation. • Identification, assessment, and reporting of threats of violence.

Priorities	Core Capabilities	Lifelines	Example Project Types
Combating Domestic Violent Extremism	• Risk management for protection programs and activities • Interdiction and disruption • Intelligence and information sharing • Planning • Public information and warning • Operational coordination • Risk management for protection programs and activities	Safety and Security	• Joint intelligence analysis training and planning with DHS officials and other entities designated by DHS • Open-source analysis of disinformation and misinformation campaigns, targeted violence, and threats to life, including tips/leads, and online/social media-based threats. • Sharing and leveraging intelligence and information, including open-source analysis • Execution and management of threat assessment programs to identify, evaluate, and analyze indicators and behaviors indicative of domestic violent extremists. • Training and awareness programs (e.g., through social media, suspicious activity reporting [SAR] indicators and behaviors) to help prevent radicalization. • Training and awareness programs (e.g., through social media, SAR indicators and behaviors) to educate the public on misinformation and disinformation campaigns and resources to help them identify and report potential instances of domestic violent extremism
Enhancing Community Preparedness and Resilience	• Planning • Public Information and Warning • Community Resilience • Risk Management for Protection • Programs and Activities • Mass Care Services • Intelligence and Information Sharing • Risk and Disaster Resilience Assessment • Long Term Vulnerability Reduction	Safety and Security	• Establish, train, and maintain Community Emergency Response Teams (CERT) and Teen CERT, with a focus on historically undeserved communities, including procurement of appropriate tools, equipment, and training aids. • Local delivery of CERT Train-the-Trainer and CERT Program Manager to build local program training and maintenance capacity. • Provide continuity training, such as FEMA's Organizations Preparing for Emergency Needs training, to faith-based organizations, local businesses, and community-based organizations such as homeless shelters, food pantries, nonprofit medical providers, and senior care facilities to bolster their resilience to all hazards. • Partner with local school districts to deliver the Student Tools for Emergency Planning curriculum or other educational programming to guide students on how to create emergency kits and family communications plans. • Partner with key stakeholders to assist with completing the Emergency Financial First Aid Kit or a similar tool to bolster the disaster centric financial resilience of individuals and households. • Execute <i>You are the Help Until the Help Arrives</i> workshops in concert with community-based organizations to bolster individual preparedness. • Target youth preparedness using FEMA programming such as Prepare with Pedro resources and Ready2Help. • Promote community planning, coordination, and integration of children's needs during emergencies through workshops like FEMA's Integrating the Needs of Children • Community Mapping: identify community resources and characteristics to identify gaps in resources, identify hazards and vulnerabilities, and inform action to promote resilience. • Provide training and awareness programs with key stakeholders (e.g., through social media, community, and civic

Priorities	Core Capabilities	Lifelines	Example Project Types
Enhancing Election Security	• Cybersecurity • Intelligence and information sharing • Planning • Long-term vulnerability reduction • Situational assessment • Infrastructure systems	Safety and Security	organizations) to educate the public on misinformation and disinformation campaigns to increase individual and community resilience. • Physical security planning support • Physical/site security measures – e.g., locks, shatter proof glass, alarms, etc. • General election security navigator support • Cyber navigator support • Cybersecurity risk assessments, training, and planning • Projects that address vulnerabilities identified in cybersecurity risk assessments. • Iterative backups, encrypted backups, network segmentation, software to monitor/scan, and endpoint protection. • Distributed Denial of Service protection • Migrating online services to the “.gov” internet domain

National Preparedness Goal:

“A secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.”

Mission Areas and Core Capabilities:

Applicants are encouraged to consider investments and projects that support local, regional, and national efforts to support the five (5) mission areas for Homeland Security:

1. Prevention- Prevent, avoid, or stop an imminent, threatened, or actual act of terrorism.
2. Protection- Protect our citizens, residents, visitors, and assets against the greatest threats and hazards in a manner that allows our interests, aspirations, and way of life to thrive.
3. Mitigation- Reduce the loss of life and property by lessening the impact of future disasters.
4. Response- Respond quickly to save lives, protect property and the environment, and meet basic human needs in the aftermath of a catastrophic incident.
5. Recovery- Recover through a focus on the timely restoration, strengthening and revitalization of infrastructure, housing, and a sustainable economy, as well as the health, social, cultural, historic, and environmental fabric of communities affected by a catastrophic incident.



Applicants are encouraged to also consider projects that meet the FEMA Core Capabilities within the National Preparedness goal. There are thirty-two (32) core capabilities that fit within the five (5) mission areas that help build, sustain and agencies capabilities, along with close identified gaps.

FEMA Core Capabilities:

Prevention

- | | | |
|---|---|---|
| 1. Planning | 3. Intelligence and Information Sharing | 5. Screening, Search, and Detection |
| 1. Public Information and Warning | | 6. Forensics and Attribution |
| 2. Operational Coordination | 4. Interdiction and Disruption | |

Protection

- | | | |
|---|---|--|
| 1. Planning | 5. Interdiction and Disruption | 9. Physical Protective Measures |
| 2. Public Information and Warning | 6. Screening, Search, and Detection | 10. Risk Management for Protection Programs and Activities |
| 3. Operational Coordination | 7. Access Control and Identity Verification | 11. Supply Chain Integrity and Security |
| 4. Intelligence and Information Sharing | 8. Cybersecurity | |

Mitigation

- | | | |
|---|--|---|
| 1. Planning | 4. Community Resilience | 7. Threats and Hazards Identification |
| 2. Public Information and Warning | 5. Long-Term Vulnerability Reduction | |
| 3. Operational Coordination | 6. Risk and Disaster Resilience Assessment | |

Response

- | | | |
|--|--|---|
| 1. Planning | 7. Fatality Management Services | 12. On-Scene Security, Protection, and Law Enforcement |
| 2. Public Information and Warning | 8. Fire Management and Suppression | 13. Operational Communications |
| 3. Operational Coordination | 9. Logistics and Supply Chain Management | 14. Public Health, Healthcare, and Emergency Medical Services |
| 4. Infrastructure Systems | 10. Mass Care Services | 15. Situational Assessment |
| 5. Critical Transportation | 11. Mass Search and Rescue Operations | |
| 6. Environmental Response/ Health and Safety | | |

Recovery

- | | | |
|---|---|---|
| 1. Planning | 4. Infrastructure Systems | 7. Housing |
| 2. Public Information and Warning | 5. Economic Recovery | 8. Natural and Cultural Resources |
| 3. Operational Coordination | 6. Health and Social Services | |

For more information on the core capabilities, please see the following link to FEMA Core Capability Development Sheets. https://www.fema.gov/sites/default/files/documents/fema_ccds-all-sheets.pdf

Grant Funding Eligibility:

Only eligible Applicants may apply for the State Homeland Security Grant Program. Eligible Applicants include those defined in the Department of Homeland Security Act of 2002:

- Local Units of government: The term “local government means-
 - A county, municipality, city, town, township, local public authority, school district, special district,

intrastate district, council of government (regardless of whether the council of governments is incorporated as a non-profit under State law), regional or interstate government entity, or agency or instrumentality of a local government.

- An Indian tribe or authorized tribal organization; and
- A Rural community, unincorporated town or village, or other public entity.

- State Agencies: Under the SHSP, the State Administrative Agency (SAA) **may retain no more than 20 percent of funding** for expenditures made by the state on behalf of the local unit(s) of the government. Funding outside of the 20 percent may occur **only** with the written consent of the local unit(s) of government and the approval of DHS/FEMA.

The Mississippi Office of Homeland maintains all MOU's indicating written consent of the local unit(s) of government. All MOU's must be submitted to FEMA, approval and the award will be at the discretion of FEMA's approval, if funding is allocated.

- Grant Application requests are **not** a guarantee for funding. Grants may be funded in the whole or partially funded. All funding considerations will be based on need and how the project fulfills the needs of the MOHS priorities and programs.
- The total amount of funding is limited to the amount received by FEMA, national priorities, and the requirements of the grant.
- Prioritize funding requests for items that **meet the needs** of the grant and applicant's department. Awards will be given to projects with the needs identified in the Application.
- All funding requests must be reasonable and allowable.

What can I apply for?

If Applicants have questions regarding the allowable or unallowable use of funding or need assistance in completing the Application, please contact mohsgrants@dps.ms.gov. Applicants may also visit the FEMA website and review the Notice of Funding Opportunity to review all grant funding guidelines for this grant opportunity. Please see the link below: <https://www.fema.gov/grants/preparedness>

Allowable Grant Items:

Please see the FY25 Homeland Security Notice of Funding Opportunity for additional information on allowable grant costs. The list below is not exhaustive, therefore, if Applicants have any additional questions, please reach out to mohsgrants@dps.ms.gov. Applicants may also visit the FEMA website and review the federal Notice of Funding Opportunity to review all grant funding guidelines for this grant opportunity. Please see the link below: <https://www.fema.gov/grants/preparedness>

Allowable Costs may include:

Priorities	Core Capabilities	Lifelines	Example Project Types
Planning	• Planning	Safety and Security	• Development of: Security Risk Management Plans Threat Mitigation Plans Continuity of Operations Plans Response Plans

Priorities	Core Capabilities	Lifelines	Example Project Types
Training & Awareness	• Risk management for protection programs and activities. • Risk and disaster resilience assessment. • Threats and hazards identification • Operational coordination • Community resilience	Safety and Security	• Efforts to strengthen governance integration between/among regional partners. • Joint training and planning with DHS officials and other entities designated by DHS. • Cybersecurity training and planning • Revision of existing plans to strengthen community resilience in underserved communities
	• Long-term vulnerability reduction • Public information and warning • Operational coordination • Situational assessment • Community resilience		• Active shooter training • Intelligence analyst training • SAR and terrorism indicators/behaviors training • Security training for employees • Public awareness/preparedness campaigns • Joint training and planning with DHS officials and other entities designated by DHS. • Cybersecurity training and planning • Sharing and leveraging intelligence and information • Targeted outreach and preparedness training for underserved communities in conjunction with community-based organizations
	• Long-term vulnerability reduction • Infrastructure systems • Operational communications • Interdiction and disruption • Screening, search, and detection • Access control and identity verification • Physical protective measures		• Protection of high-risk, high-consequence areas or systems that have been identified through risk assessments. • Physical security enhancements • Security cameras (CCTV) • Security screening equipment for people and baggage • Lighting • Access Controls • Fencing, gates, barriers, etc. • Enhancing Weapons of Mass Destruction (WMD) and/or improvised explosive device (IED) prevention, detection, response, and recovery capabilities. • Chemical/Biological/Radiological/ Nuclear/Explosive (CBRNE) detection, prevention, response, and recovery equipment
	• Long-term vulnerability reduction • Operational coordination • Operational communications • Community resilience		• Response exercises, including exercise planning with community-based organizations

Equipment-Allowable Costs: All awarded equipment must be listed on the FEMA Authorized Equipment List (AEL). The FEMA AEL may be found at: <https://www.fema.gov/grants/tools/authorized-equipment-list>. Equipment not listed on the AEL will not be awarded.

Additional Required Justifications for Specific Equipment:

Please provide additional information and justification for the items listed below. If additional justification is not provided for the items listed below, items **will not** be considered for review. **Please provide justification, as an additional attachment with the Application submission.**

- Radios/Communication Devices:
 - Radio/communication devices **must** be compatible with the MSWIN Interoperable Communication System. Radios that are not compatible with the MSWIN system will not be considered at this time.
 - Due to the large cost range of radio/communication device amounts, the MOHS will allow **up to \$3,000.00 per MSWIN radio.**
 - Exceptions **may** be requested by an agency for radios with a cost of \$3,000.00 or more, **ONLY** with detailed justification. Please include the following details in the justification:
 - Cost per radio
 - Quantity requested.
 - Where will the radios be used and/or installed?
 - Why does the agency need additional upgrades/costs from the standard radio.
 - If any agency requests radios above \$3,000.00 **without** justification for additional costs, the request will be denied. If awarded, radios will be allowed at \$3,000.00 cost pr radio.
 - **Modifications for radio cost increases at the time of the award will not be allowable for 2025 grants.**
- License Plate Readers:
 - Requests for License Plate Readers will be considered for jurisdictions that apply, but jurisdictions that are in areas of need will be a **priority.**
 - **Stationary/Fixed LPR systems are preferred and recommended.** Mobile LPR's **are unlikely to be considered** for awards.
 - LPR systems **must** be accessible with the Mississippi Analysis and Information Center (MSAIC).
 - Awarded LPR systems **must** be available for information and intelligence sharing with the MSAIC.
 - The MOHS does not partner or establish preferences for any vendor or product. MOHS does require that data and information is shareable and accessible to the MOHS/MSAIC.
 - Contractual services used for LPRS are for (1) one year of service, which coincides with the period of performance of the grant. All time periods for the equipment and/or products should be for (1) year of services. Multiple years for services for more than (1) one year **will not be** considered.
 - **Modifications for LPR changes from stationery/fixed to mobile at the time of the award will not be allowable for 2025 grants.**
- **NEW-Camera/Surveillance Systems:** Due to the increase in requests for city/area wide camera/surveillance systems to monitor violent crimes, MOHS requires a justification plan **to be considered:**
 - Monitoring Plan-Who, what, When and Where will the cameras/surveillance systems be monitored?
 - Does the Applicant currently have a camera system in place?
 - Provide specific and detailed data to back up crime/terrorism statistics in area.
 - Detailed description on how crime is considered terrorism and how these cameras will reduce the terrorism component in the area.
 - Map(s) of where cameras/surveillance systems will be located and an assessment of why cameras/surveillance systems s will be placed where selected.
 - Provide detailed information on the video feed and recording of data can and will be shared with other partners for the reduction of terrorism.

- **NEW-Vehicles/ATV/Other Types of Motorized Vehicles:** Due to the increase in requests for vehicles/ATV/other motorized types of vehicles, the MOHS requires additional justification for all requests **to be considered**.
 - How will this type of equipment increase the Homeland Security mission in your area?
 - How will this type of equipment reduce terrorism in your area?
 - Will this equipment be replaced by the currently available same type of equipment? Yes or No.
 - Who will be assigned to the equipment?
- **NEW-Items requested over \$75,000.00.** Any items requested over \$75,000.00 will require additional justification **to be considered**. Provide the following:
 - How will this item increase the Homeland Security mission in your area?
 - How will this item reduce terrorism in your area?

Additional FEMA Approval: Some equipment requests may require additional approval from FEMA. MOHS may require additional information and detailed justifications for the request.

- **Environmental and Historical Preservation Compliance:** All projects that may have potential impact to the environment **will require** a FEMA Environmental Historic Preservation form. For more information, please see FEMA Policy 108-023-1.
 - Ground disturbances, new construction, modification/renovation of buildings (including the addition of cameras, security doors, etc.) will require an EHP form to be submitted.
 - Renovation of and/or modification including installation of security and communication equipment to buildings or structures that are fifty (50) years old or older.
 - Installation of security features such as doors, cameras, security locks, etc., will also require an EHP submission for FEMA approval.
 - Security enhancements to improve perimeter security or any other construction or renovations that change or expand the footprint of the facility.
 - Physical security enhancements including, but not limited to:
 - Lighting
 - Fencing
 - Closed Circuit Televisions
 - Motion Detection
 - Stationary/fixed License Plate Readers
 - Barriers, doors, gates, and related security enhancements.

Unallowable Grant Costs:

The following items are considered unallowable by FEMA and/or the Mississippi Department of Homeland has deemed the items not permissible for funding. Applicants may also visit the FEMA website and review the Notice of Funding Opportunity to review all grant funding guidelines for this grant opportunity. Please see the link below, <https://www.fema.gov/grants/preparedness>

- **Supplanting:**
 - Grant funds will be used to supplement existing funds and will not replace (supplant) funds that have been appropriated for the same purpose. Applicants or recipients may be required to supply documentation certifying that a reduction in non-federal resources occurred for reasons other than the receipt or expected receipt of federal funds.
- **FEMA Approval:**
 - Grant funds may not be used for the purchase of equipment not approved by DHS/FEMA. Grant

funds must comply with IB 426 and may not be used for the purchase of the following equipment: firearms; ammunition; grenade launchers; bayonets; or weaponized aircraft, vessels, or vehicles of any kind with weapons installed.

- Weapons, Ammunition and Other Equipment:
 - Per FEMA policy, the purchase of weapons and weapons accessories, including ammunition, is not allowed with HSGP funds.
 - Body worn cameras.
- Maintenance Contracts:
 - Maintenance contracts, warranties, repair or replacement costs, upgrades, and user fees are only allowable in the following circumstances:
 - The use of DHS/FEMA preparedness grant funds for maintenance contracts, warranties, repair or replacement costs, upgrades, and user fees are allowable, as described in FEMA Policy FP 205-402-125-1 under all active and future grant awards, unless otherwise noted. Except for maintenance plans or extended warranties purchased incidental to the original purchase of the equipment, the period covered by maintenance or warranty plan must not exceed the POP of the specific grant funds used to purchase the plan or warranty.
- Unauthorized exercise-related costs include:
 - Reimbursement for the maintenance or wear and tear costs of general use vehicles (e.g., construction vehicles), medical supplies, and emergency response apparatus (e.g., fire trucks, ambulances).
- Equipment:
 - Equipment/ supplies that are purchased for permanent installation and/or use, beyond the scope of the conclusion of the exercise (e.g., electronic messaging sign)
- In-Direct Costs for Agency operational expenses are considered unallowable.
- Personnel, Overtime and Backfill costs:
 - Hiring of sworn public safety officers or supplant safety positions and responsibilities.
 - Salaries and personnel costs of planners, equipment managers, exercise coordinators and/or training coordinators.
 - Please note that overtime and backfill for training and exercise are **only allowable** in the following circumstances:
 - Training:
 - Overtime and backfill for emergency preparedness and response personnel attending DHS/FEMA-sponsored and approved training classes only.
 - Overtime and backfill expenses for part-time and volunteer emergency response personnel participating in DHS/FEMA training only.
 - Exercises:
 - Overtime and backfill costs, including expenses for part-time and volunteer emergency response personnel participating in DHS/FEMA exercises.
- The following are common requests that are unallowable and/or unfunded:
 - Requests for equipment for **routine/general use**.
 - All SHSP equipment requested must assist recipients and subrecipients in achieving core

capabilities related to preventing, preparing for, protecting against, or responding to acts of terrorism.

- For more information refer to “Explain how Applicants proposed project supports terrorism preparedness” the of this RFP.
- Tactical law enforcement protective equipment for routine use or riot suppression. Items in this category are allowable only to supplement normal stores, to provide the surge capacity necessary for CBRNE terrorism response.
- Vehicles:
 - While certain vehicles are allowable, Applications for vehicles will be reviewed on a case-by-case basis based on need, use, and justification.
 - General purpose vehicles (patrol cars, executive transportation, fire trucks and tactical/assault vehicles, etc.)
 - Reimbursement for the maintenance and/or wear and tear costs of general use vehicles, medical supplies, and emergency response apparatus.
- MOHS Unallowable Grant Equipment/Commodities or Supplies:
 - Unmanned Aircraft Systems/Aerial Vehicles/Drones: The MOHS will not consider unmanned aerial systems/aerial vehicles and/or drones, as part of eligible equipment for the HSGP Application. Unmanned aerial systems/aerial vehicles and/or drones will not be awarded during the FY25 HSGP award.
 - General Use Items: The MOHS will not consider general use items that could be used for activities outside the grant. Example: Laptops, computer equipment, etc.
 - PPE: The MOHS will not consider PPE for that is **not required** for specialized grant activities. Examples such as: Static-free PPE for Bomb Teams. **General use PPE such as pants, boots, t-shirts, BDU clothing, will not be considered. PPE is for specialized activities and programs only.**

When Are Applications Due?

All HGSP Applications and supporting documentation must be received by the Mississippi Office of Homeland Security offices by **March 31, 2025, by 5:00 p.m. CST.** Applications may be submitted before the deadline and encouraged. Applications received after this date and time may not be considered eligible for consideration.

To facilitate processing, please submit Applications and supporting documentation via email to mohsgrants@dps.ms.gov.

What Do I Need to Do to Apply?

- The applicant must be eligible for funding.
- The applicant must not be listed on the suspended and debarred list.
- The applicant must not be listed on the Denied Parties List.
- The applicant must be NIMS complaint with NIMS Courses (100, 200,700 and 800). Applicants will be

requested to show compliance, if awarded.

- Applicants must have a current and active Unique Entity Identification (UEI) number.
- Applicants must read and comply with 2 CFR 200.318 to 2 CFR 200.327 regulations.
- Applicant must have written procurement standards per 2 CFR 200.318(a).
- Applicant must have written conflict of interest standards per 2 CFR 200.318(c).
- Applicant read and understand that certain telecommunications and video surveillance services or equipment are prohibited from being purchased using grant funds. See 2 CFR § 200.216 and 2 CFR § 200.471.
- Applicants must take necessary steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used, when possible, per 2 CFR 200.321.
- The applicant agrees that this federal funding does not supplant (replace) state, local, and agency monies in their organization's budget for the requested items in this Application.

The following items must be submitted at the time of the Application, or the Application will be considered incomplete.

- Complete FY25 HSGP Application
- Agency Signatures
- UEI Certification, showing Active Date and UEI Number
- Most Recent Audit, if Applicable.
- Copy of NIMS Certification for (1) one member of the agency, to include 100, 200, 700 and 800 certifications.
- Additional Justification, if applicable for the following items:
 - Radios over \$3,000.00
 - Camera/Surveillance Systems
 - Vehicles/ATV/Other Types of Motorized Vehicles
 - Items are over \$75,000.00

What If I Have Questions about the Grant Application?

The Mississippi Office of Homeland Security is always available to answer any questions regarding the Application packet and/or any grant questions.

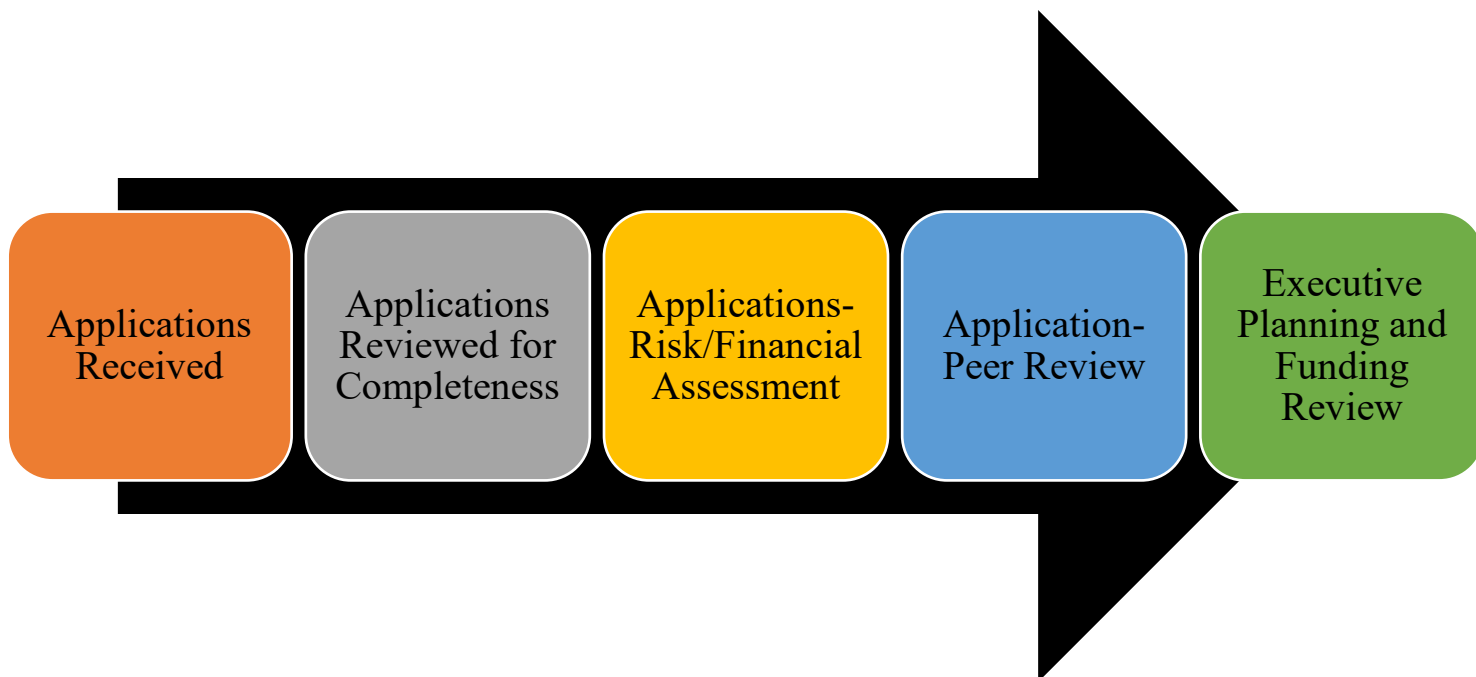
Grant Writing Sessions:

The MOHS will hold two (2) grant writing sessions to provide program updates, answer questions and assist in the development of the Applications.

Grant Writing Sessions for the Homeland Security Grant Program	
March 10, 2025	March 19, 2025

What Happens After the Application Is Submitted?

Each Application will go through a series of reviews for completeness, risk assessment, peer review, scoring and an executive planning and funding session. Please see below the stages of review for each Application that is received.



Please Remember:

- **Grants are based around the terrorism nexus, not natural disasters. You must show terrorism related threats and hazards.**
- **Funding is limited and grants are competitive.**
- Please prioritize projects and requests. Awards will be made on the need of identifying how the need will assist the State in the MOHS mission and if funds are available.
- Fill out each section of the Grant Application in its entirety. Do not leave blank sections.
- Projects may be funded as a whole or partially funded.
- Please apply for what the agency NEEDS, not WANTS. If awarded, the Award will be made from approved items submitted with the Application. MODIFICATIONS will be limited during FY25.

All Applicants will receive a Notice of Award or Notice of Non-Approval. All non-approval Applications will be kept on file for (1) one year if funds become available. If funding becomes available, MOHS staff will contact the agency to discuss opportunities.

If awarded during the review process, the applicant will then become a sub-grantee and receive notice of an upcoming Grant Orientation meeting. The MOHS will provide updates of the grant, award packet information, grant forms, information on required reporting and closeout. A grant award packet will be sent to the sub-grantee for the review and the attainment of signatures from all authorized signatory officials.

Grant funds cannot be spent or requested until the subgrantee has submitted all required award documentation. Costs/Expenses purchased before the executed agreement will be disallowed. Contracts entered before the period of performance begins will be disallowed.

Completing the Grant Application



Agency Applicant Information:

Applicant Details:

- Date: Date of Application Submission
- Name of Agency: Full name of the Agency.
- Mailing Address: Full mailing address of the Agency
- County of Agency: Name of the county where the Agency resides.
- Agency Contact Name: Name of the person that is responsible for filling out the Application.
- Agency Contact Phone Number: Phone number that can best reach the agency contact.
- Agency Contact Email Address: Email Address that can best reach the agency contact.
- Signatory Authorized Official Name: Name of the Mayor, Board President, Commissioner or Head of Agency.
- UEI Number: Twelve (12) Numeric and Digit code set up in SAMS.gov. Check with the finance clerk for this number.
- UEI Expiration Date: Date that the UEI Number is set to expire for the year.
- Congressional District: Congressional district where the agency resides.

DATE OF APPLICATION							
NAME OF AGENCY							
MAILING ADDRESS							
CITY				ZIP CODE			
COUNTY							
AGENCY CONTACT NAME							
CONTACT PHONE NUMBER							
CONTACT EMAIL ADDRESS							
SIGNATORY AUTHORIZED OFFICIAL							
<i>(Name of Mayor, Board President, Commissioner, Head of Agency, etc.)</i>							
AUTHORIZED OFFICIAL EMAIL							
UEI NUMBER				EXP DATE			
<i>* Please provide a copy of UEI number and current status, as shown in SAM.gov.</i>							
CONGRESSIONAL DISTRICT							

Grant Applicant funding Request by Cost Category:

- Contractual Services: List of the total amount requested for contractual services.
- Equipment: List of the total amount of equipment requested.

- Commodities/Supplies: List of the total amount requested for commodities/supplies.
- Other: Any expenses that fall outside the other categories, should be included in the “Other” category.
- Total Grant Amount Requested: Add all sections for the total grant amount requested.

GRANT APPLICANT FUNDING REQUEST BY COST CATEGORY	
COST CATEGORY	AMOUNT REQUESTED
CONTRACTUAL SERVICES	\$0.00
EQUIPMENT	\$0.00
COMMODITIES/SUPPLIES	\$0.00
OTHER	\$0.00
TOTAL OF GRANT AMOUNT REQUESTED	\$0.00

Problem Identification & Description: Agency Demographic Information:

- Number of Square Miles: List Number of square miles where the agency is located. Ex. City of New York-15 miles or County of Yorktown-180 miles.
- Population: List of the number of the population where the agency is located.
- Number of Agency Staff: List of the number of officers and/or staff that work in the agency.

**Agency
Type:**

PROBLEM IDENTIFICATION & DESCRIPTION	
AGENCY DEMOGRAPHIC INFORMATION	
NUMBER OF SQUARE MILES	
POPULATION	
NUMBER OF AGENCY STAFF	

Mark the the type of agency that best fits the Applicant.

AGENCY TYPE					
☐	LAW ENFORCEMENT	☐	FIRE SERVICE	☐	EMERGENCY SERVICES/EMA
☐	CITY/COUNTY	☐	SCHOOL DISTRICT	☐	OTHER

II. Agency’s Top Terrorism Threat & Terrorism Hazard: Terrorism Threat:

Each applicant should provide a detailed description of the top terrorism threat for the areas in which the applicant services.

TERROISM THREAT is a technological or human caused occurrence by a individual, entity, or action that has or will cause potential to harm to life, information, operations, the environment and/or property.

BRIEFLY DESCRIBE THE AGENCY'S TOP TERRORISM THREAT

Terrorism Hazard:

Each applicant should provide a detailed description of the top terrorism hazard for the areas in which the applicant services.

TERROISM HAZARD is a potentially dangerous or harmful threat that can create unwanted outcomes. Hazards can include threats of terrorism, bomb scares, bombings, use of chemical, nuclear, and radiological weapons. A hazard is an intent to cause mental or physical injury or death for the purpose of advancing a person, organization, or agenda of extreme fear and intimidation.

BRIEFLY DESCRIBE THE AGENCY'S TOP TERRORISM HAZARD

Preparedness Gaps:

Each applicant should provide detailed descriptions for each of the questions below. **This section will carry**

substantial weight for the awarding of program funds. Each applicant should be able to demonstrate a preparedness gap and be able to provide how that gap was identified, how the funding will increase capability and how the project will support preparedness and response in the event of terrorism.

PREPAREDNESS GAPS
<i>Provide a detailed description of any preparedness gaps that hinder your agency's ability to prevent, protect, mitigate, respond to, and recover from threats and hazards. Include in the following information in your response:</i>
1. A clear identification of the Agency <u>PREPAREDNESS GAP(s)</u>, include operational or resource(s) deficiencies of the agency.
2. The process or method used to identify the <u>PREPAREDNESS GAP(s)</u> (e.g., specific real-training events, training exercises, threat assessment, or after-action reports). Use specific data and provide examples to illustrate how these <u>PREPAREDNESS GAP(s)</u> have impacted your agency's operations.
3. Describe how the requested funding, resources, training, or equipment will increase your agency capabilities to address these <u>PREPAREDNESS GAP(s)</u>.
4. Explain how this project will support <u>TERRORISM PREPAREDNESS and RESPONSE</u> for the agency?

National Priority:

Please select the national priority(s) that best address the Applicants need for assistance. *National Priorities are subject to change based on the final FEMA Notice of Funding.

1. Community Preparedness: Enhancing community preparedness in the event of a terrorism incident.
2. Cyber Security: Enhancing Cyber Security
3. Election Security: Enhancing Election Security in the event of terrorism incidents.
4. Information and Intelligence Sharing: Enhancing information and intelligence sharing and cooperation with federal agencies, including MOHS and Department of Homeland Security
5. Soft Targets/Crowded Places: Enhancing the protection of soft targets in crowded places.
6. Violent Extremism: Addressing violent extremism in Applicants' area.

NATIONAL PRIORITY			
<i>Please mark which National Priority that the Agency will support with funding received.</i>			
☐	COMMUNITY PREPAREDNESS	☐	INFORMATION & INTELLIGENCE SHARING
☐	CYBERSECURITY	☐	SOFT TARGETS/CROWDED PLACES
☐	ELECTION SECURITY	☐	VIOLENT EXTREMISM

Mission Area:

Please select the Mission Area(s) that best addresses the applicant's area that will be supported with funding, if awarded.

1. Prevention: Prevent, avoid, or stop an imminent, threatened, or actual threat of terrorism
2. Protection: Protect our citizens, residents, visitors, and assets against the greatest threats and hazards in a manner that allows our interests, aspirations, and way of life to thrive
3. Mitigation: Reduce the loss of life and property by lessening the impact of future disasters.
4. Response: Respond quickly to save lives, protect property and the environment, and meet basic human needs in the aftermath of an incident.
5. Recovery: Recover through a focus on the timely restoration, strengthening and revitalization of infrastructure, housing, and a sustainable economy, as well as the health, social, cultural, historic, and environmental fabric of communities affected by an incident.

MISSION AREA			
<i>Please mark which MISSION AREA that the Agency will support with funding received.</i>			
☐	PREVENTION	☐	RESPONSE
☐	PROTECTION	☐	RECOVERY
☐	MITIGATION		

Grant Budget Request:

Each applicant should review the Terrorism Threat, Terrorism Hazard and Preparedness Gaps to request the budget fund requests that will be fit the agencies **NEED**. Funding is **VERY** limited and should be requested based on need and priority of the request. All information provided in the Grant Budget Request sections is a request.

There are no guarantees for funding. Funding may be partial or adjusted to coincide with grant funding available. All items requested MUST be justifiable by the terrorism threat, terrorism hazard and preparedness gaps.

Contractual Services: Include a detailed assessment of contractual services within the program area in which Applicants will be applying. Also, include a cost estimate for all contractual needs (rental, shipping costs, etc.). All expenses must be in accordance with current state and federal guidelines. **One (1) year of funding is allowable. Multiple years for services will not be considered.**

CONTRACTUAL SERVICES			
<i>Contractual Services should be requested for one (1) year of service only. All expenses must be in accordance to current state and federal guidelines. Agency should be prepared to be able to continue contractual services, if future awards or services are not approved.</i>			
Type of Contractual	Amount of Service	Quantity of Service	Total
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
TOTAL CONTRACTUAL SERVICES			\$0.00

Equipment: All Equipment must be allowable, reasonable and must be essential to the closing the preparedness gap. All equipment must be included on the FEMA Authorized Equipment List. Unallowable equipment: Guns, Ammunition, Body Cameras, and Drones. (See guidance above for more information). AEL Numbers **must be included** in the Application. Funding must be tied to terrorism threats, terrorism hazards, and preparedness gaps. Equipment must be essential to the program.

The FEMA AEL List can be located at the following link: <https://www.fema.gov/grants/tools/authorized-equipment-list>

*If Equipment requires additional justification for consideration, please provide the Application at the time of submission. If equipment requires additional justification and is not provided, the items may not be considered or items may be awarded at reduced program allocations, such as mobile radios.

**If additional spaces are needed for equipment, please add an additional page to the Application.

EQUIPMENT				
All equipment must be on the FEMA Authorized Equipment List (AEL). You can find the AEL at https://www.fema.gov/grants/tools/authorized-equipment-list . Equipment MUST be for terrorism based programs and activities. (See Funding Guidance for more information).				
FEMA AEL Number:	Description of Equipment:	Item Cost	Quantity	Equipment Total:
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
TOTAL COST OF EQUIPMENT				\$0.00

Commodities/Supplies: Include a detailed assessment of commodity/supply expenses within the program area in which Applicants are applying. Also, include a cost estimate for all additional grant expenses (gloves, traffic safety cones, flashlights, reflective safety vests, etc.). All expenses must be in accordance with current state and federal guidelines. Items are not identified as equipment and are not considered general use items, such as office supplies.

COMMODITIES/SUPPLIES			
Include a detailed assessment of other grant expenses within the program area in which you applying. Also, include a cost estimate for all additional grant expenses (e.g., gloves, traffic safety cones, flashlights, reflective safety vest, triage kits, etc.) All expense must be in accordance to current state and federal guidelines. These items are disposable and not equipment.			
ITEM	ITEM COST	QUANTITY	TOTAL COST
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
TOTAL COST OF COMMODITIES/SUPPLIES			\$0.00

Other Expenses: Include a detailed assessment of additional needs within the program area in which Applicants will be applying. Additional items listed in this category must have a detailed justification for requests. All expenses must be in accordance with current state and federal guidelines.

OTHER EXPENSES			
Additional items listed in this category must have detailed justification for requests. These items do not fall within any of the above listed categories.			
Type of Expense	Item/Description	COST	TOTAL
			\$0.00
			\$0.00
			\$0.00
			\$0.00
			\$0.00
TOTAL OTHER EXPENSES			\$0.00
ADDITIONAL JUSTIFICATION FOR OTHER EXPENSES			

Total Amount Requested: Please include a total of all budget sections for a total of the funding being requested.

TOTAL AMOUNT REQUESTED		\$0.00
------------------------	--	--------

Prior Grant Experience:

Please mark Applicants' responses by a Yes or No response. Complete all sections.

PRIOR GRANT EXPERIENCE		
<i>Please answer YES or NO to the following questions.</i>		
	YES	NO
Has your agency received federal and/or state grants similar to the MOHS Grant?	☐	☐
Does your agency have at three (3) years of receiving federal grant funds? Does not have to be MOHS related.	☐	☐
Has your agency received MOHS Grant funds within the past three (3) years?	☐	☐
Has your agency ever received any corrective actions from a Audit Report?	☐	☐
Has the agency administration remained unchanged during the 2024 grant year? For example: (Chief, Sheriff, SGA, Financial Officer, Program Staff)	☐	☐
Can this project be completed by August 30, 2026?	☐	☐

Agency Audit:

Non-federal organizations, which expend \$1,000,000.00 or more in federal funds during a fiscal year, will be required to have an audit performed in accordance with 2 CFR Part 200, Subpart F. Applicant **MUST** provide a copy of their Applicants latest audit report, if applicant meets the funding threshold. If an agency is applying as a sub-agency of a municipality or county, please include the municipality or county's latest audit report. Attach a copy of the latest audit at the time of the Application submission.

If an agency is required to submit an audit, but is not submitted with the Application, the Application will be considered incomplete.

AGENCY AUDIT	
Non-federal organizations, which expend \$1,000,000.00 or more in federal funds during a fiscal year, will be required to have an audit performed in accordance with 2 CFR Part 200, Subpart F. Applicant MUST provide a copy of their latest audit report, if Applicant meets the funding threshold. Attach a copy of the latest audit to this Application.	
☐	I certify that the Applicant's associated city/county/organization does NOT expect, to be required to have an audit performed under 2 CFR Part 200, Subpart F, for the above listed program.
☐	I certify that the Applicant's associated city/county/organization, WILL BE required to have an audit performed under 2 CFR Part 200, Subpart F. A copy of the audit report MUST be attached at the time of Application submission.

NIMS Compliance Form

The National Incident Management System (NIMS) guides all levels of government, non-governmental organizations (NGO), and the private sector to work together to prevent, protect against, mitigate, respond to, and recover from incidents. NIMS provides stakeholders across the whole community with shared vocabulary, systems, and processes to successfully deliver the capabilities described in the National Preparedness System. As recipients and subrecipients of federal preparedness (non-disaster) grant awards, jurisdictions and organizations must achieve, or be actively working to achieve, all the NIMS Implementation Objectives. The objectives can be found on the NIMS webpage at: <https://training.fema.gov/nims/>

Under Executive Order #932, Mississippi established NIMS as the standard for incident management within the State. The U.S. Department of Homeland Security/Federal Emergency Management Agency guidance provides that accepting grant funding is conditioned upon NIMS compliance. This jurisdiction attests that we continue to strive toward NIMS compliance, as provided under federal and State NIMS guidance.

This jurisdiction understands receiving and/or using U.S. Department of Homeland Security grant funds remains conditional upon NIMS compliance. Non-compliance of NIMS can result in funds being withheld or reallocated from our jurisdiction because of ineffective NIMS support and participation.

As part of the FY25 HSGP Application, the MOHS requests that each applicant provide a copy of the NIMS compliance certifications to confirm that at least (1) member of the applicant's agency is NIMS compliant. A copy of the 100, 200, 700 and 800 should be included at the time of the Application submission. If an agency is does not submit NIMS compliance documetation, the Application will be considered incomplete.

NIMS COMPLIANCE
As part of the Grant Application process, each agency <u>MUST</u> provide a copy of the NIMS Compliance certifications. This includes NIMS Certifications 100, 200, 700, 800, for a one (1) member of the agency. If a member of the agency needs to complete this training they can go to: https://training.fema.gov/nims/ . Documentation <u>MUST</u> be attached at the time of Application submission.

Application Submission Compliance/Applicant Contact:

Please read the following statement if the applicant agrees with the submission of the FY25 HSGP Grant Application, please have the person completing the Application fill out the following:

APPLICATION SUBMISSION COMPLIANCE/APPLICATION CONTACT			
I certify that I am an employee of the aforementioned agency or have been hired by the agency to apply on their behalf for the Grant. All parties have knowledge and approved of the contents of this Application, Budget Request and all information provided within.			
APPLICANT SIGNATURE			DATE
APPLICANT NAME (PLEASE PRINT)			APPLICANT TITLE



BEFORE SUBMITTING THE FY25 HSGP APPLICATION: Have you included:



- **FY25 Homeland Security Grant Application:**
 - All sections of the Application must filled be out. No blank spaces.
 - Double checked AEL/Equipment list and include allowable AEL Numbers.
 - Cost estimates will cover all areas of the budget request.
- **Required Documentation is Provided at the time of the Application submission:**
 - Unique Entity Identification Number
 - UEI Confirmation. As shown in Grants.gov
 - UEI Number
 - Current Status
 - Latest Audit (If Applicable)
 - NIMS Compliance Certifications, for (1) member of the Applicants Agency.
 - 100
 - 200
 - 700
 - 800
- **Additional Justification, if applicable for the following items:**
 - Radios over \$3,000.00
 - Camera/Surveillance Systems
 - Vehicles/ATV/Other Types of Motorized Vehicles
 - Items are over \$75,000.00
- **Once completed and double checked.**
 - Email the mohsgrants@dps.ms.gov, on or before March 31, 2025, at 5:00 p.m.

The MOHS will provide an Approval or Non-Approval Letter to each Applicant on or before July 1, 2025.



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Wiley Quinn, Urban Development Director, Dequandra Johnson
cc: Kermas Eaton, City Clerk
Date: Tuesday, March 18, 2025
Re: Approve and authorize the issuance of manual checks for CDBG/HOME Program Claims per the attached Memorandum.
File Number: 2025-205
Minute Book #

Summary

Approve and authorize the issuance of a manual check for CDBG/HOME Program Claims per the attached Memorandum.

Recommendation Statement

I recommend approval of this item. Please place this item on the March 18, 2025, City Council meeting for consideration.

Please place this on the March 18, 2025 City Council meeting for consideration.

INVOICE

CN 21-3823-007

March 5, 2025

City of Hattiesburg
200 Forrest Streete
Hattiesburg, MS, 39401

RE:

Katie Dabbs Community Center Renovations
Hattiesburg, MS

ATTN: annjones@hattiesburgms.com / djohnson@h

For Professional Services Rendered

Fee Structure Basis for Design Services:			Percentage of Construction Cost	
For Professional Services Rendered from	June 14, 2024	through	February 25, 2025	
Est. Construction Cost:*	\$ 1,045,000.00	Percentage Fee	8.00%	

Percentage Design Services					
Phase of Work	% of Fee		Phase Fee*	% Complete	Current Status*
Schematic Design	15%	=	\$ 12,540.00	100%	= \$ 12,540.00
Design Development	20%	=	\$ 16,720.00	100%	= \$ 16,720.00
Construction Documents	40%	=	\$ 33,440.00	100%	= \$ 33,440.00
Bidding and Negotiation	5%	=	\$ 4,180.00	100%	= \$ 4,180.00
Construction**	20%	=	\$ 16,720.00	0%	= \$ -
Totals*	100%	=	\$ 83,600.00	Total Earned	= \$ 66,880.00
				Less Previous Invoiced	= \$ 48,000.00
				Total Percentage Invoice	= \$ 18,880.00

*Upon determination of updated estimated cost of actual construction cost, this amount will be adjusted.

**Monthly invoice based upon contractors percentage of completion.

***Alternates Not Accepted and Deduct Change Orders are invoiced through Bidding and Negotiating Services - not in Construction.

Construction Administration Services Detail						
Contractor	Base Bid*	Accepted*	Alternates		Change Orders	
			Not Accepted***	Add	Deduct***	Total Contract**
M&P Construction	\$ 1,045,000.00	\$ -	\$ -	\$ -	\$ -	= \$ 1,045,000.00
					Total Earned Less Retainage	= \$ -
					Less Previous Applications for Payment	= \$ -
					Total Due Current Contractor Application for Payment	= \$ -

Hourly Services Plus Expenses and Reimbursables					
Title	Hours	X	Rate/Hour	=	Total
Principal/Architect	0	X	\$ 200.00	=	\$ -
Project Manager	0	X	\$ 180.00	=	\$ -
Construction Administrator	0	X	\$ 180.00	=	\$ -
Senior Drafting	0	X	\$ 165.00	=	\$ -
Drafting	0	X	\$ 115.00	=	\$ -
Clerical	0	X	\$ 90.00	=	\$ -
Consultants	See attached copies of consultant invoices				\$ -
Reimbursable Expenses	See attached for detail.				\$ -
				Total Due Hourly Services Plus Expenses and Reimbursables	\$ -

Total Amount Due this Invoice \$ 18,880.00



Memorandum

To: Mayor Toby Barker and Members of City Council

From: Betsy Mercier, Director of Parks and Recreation

cc:

Date: Tuesday, March 18, 2025

Re: Approve the City's purchase of (4) grave spaces, located in the North Half (N 1/2) of the Northeast Quarter (NE 1/4), Lot 22, Section 32, at Highland Cemetery, and Southeast Quarter (SE 1/4), Lot 40, Section 33, and South Half (S 1/2) of the Northeast Quarter (NE 1/4), Lot 40, Section 33, at Highland Cemetery. Minute Book -File# 2014-1057, and Minute Book# 2015, page 119, in the amount of \$700.00 from Marilyn Mitchell. Authorize manual check for the same.
File Number: 2025-220
Minute Book #

Summary

Approve the City's purchase of (4) grave spaces, located in the North Half (N 1/2) of the Northeast Quarter (NE 1/4), Lot 22, Section 32, at Highland Cemetery, and Southeast Quarter (SE 1/4), Lot 40, Section 33, and South Half (S 1/2) of the Northeast Quarter (NE 1/4), Lot 40, Section 33, at Highland Cemetery. Minute Book -File# 2014-1057, and Minute Book# 2015, page 119, in the amount of \$700.00 from Marilyn Mitchell. Authorize manual check for the same.

Recommendation Statement

I am recommending approval of the City's purchase of 4 grave spaces.

Please place this on the March 18, 2025 City Council meeting for consideration.



MAYOR
Toby Barker

COUNCIL - WARD ONE
Jeffrey George

COUNCIL - WARD TWO
Deborah Denard Delgado

COUNCIL - WARD THREE
Carter Carroll

COUNCIL - WARD FOUR
Dave Ware

COUNCIL - WARD FIVE
Nicholas Brown

Date: 03/04/2025

To whom it may concern:

I, Marilyn Mitchell am requesting to sell back 4 grave space (s)

Located at Highland Cemetery, in Section 32 lot 22 N 1/2 of the NE 1/4, to the
33 40 SE 1/4
33 40 S 1/2 NE 1/4

City of Hattiesburg, which was purchased on March 21 2014 at the price
April 8 2015

Of \$ 175.00 per grave space. Total amount due this request \$ 700.00

MB# 2014 Page File # 2014-1057
2015 119

Sincerely,

Marilyn Mitchell

Mail to:

Marilyn Mitchell
51 Polk Rd.
Hattiesburg, MS. 39401

Phone#

406-321-0135

Approved
03/07/2025
Deborah Denard

Mail To.

PO Box 1192

Patla, MS 39465

CITY OF HATTIESBURG

PURCHASE OF CEMETERY GRAVE SPACES

Hattiesburg, Miss.

3/21/2014

Amount

Address

Address

Marlene Mitchell

1610 James St Hattiesburg, MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations

N NE 22 Section No. 32 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$175.00

Price Received \$175.00

Cash

CITY OF HATTIESBURG, MISSISSIPPI

By [Signature] Supt. of City Cemetery

Mail To.

St. Paul Rd

Hattiesburg, MS

CITY OF HATTIESBURG

PURCHASE OF CEMETERY GRAVE SPACES

Amount

Address

Address

Marlene Mitchell

1610 James St Hattiesburg, MS

desires to purchase the grave space described below, subject to Cemetery regulations

N NE 40 Section No. 33 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$175.00

Price Received \$175.00

CITY OF HATTIESBURG, MISSISSIPPI

By [Signature] Supt. of City Cemetery

STATE OF MISSISSIPPI
 COUNTY OF FORREST/LAMAR
 CITY OF HATTIESBURG
 HATTIESBURG, MS

DEED TO CEMETERY LOT HIGHLAND CEMETERY

For and in consideration of the sum of FIVE HUNDRED TWENTY-FIVE AND NO/100 Dollars (\$525.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto, Marilyn Mitchell, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

Southeast Quarter (SE ¼)

Lot Number 40 Section 33

South Half (S ½) Northeast Quarter (NE ¼)

Lot Number 40

Section Number 33

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

Three Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 21st day of April, 2015.

ATTEST:

Sharon Waits
 DEPUTY CITY CLERK

CITY OF HATTIESBURG, MISSISSIPPI
Johnny L. DuPree
 MAYOR

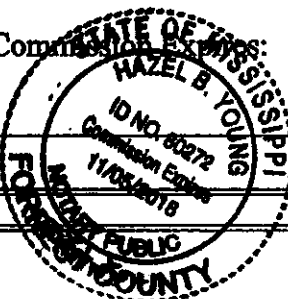
(SEAL)

STATE OF MISSISSIPPI
 COUNTY OF FORREST/LAMAR

Personally appeared before me, the undersigned authority in and for said County and State, Johnny L. DuPree and Sharon Waits, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 21st day of April, 2015

My Commission Expires:



Hazel B. Young
 NOTARY PUBLIC



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Betsy Mercier, Director of Parks and Recreation
cc:
Date: Tuesday, March 18, 2025
Re: Approve the sale of grave spaces per attached Memo's, Receipts and Deeds.
File Number: 2025-219
Minute Book #

Summary

Approve the sale of grave spaces per attached Memo's, Receipts and Deeds.

Recommendation Statement

I am recommending approval for the sale of grave spaces.

Please place this on the March 18, 2025 City Council meeting for consideration.

To: CITY COUNCIL

From: Deborah Bourne, Division Manager of Cemeteries

Charles Edward Lewis

(1) Space \$ 175.00

South Half (S ½) of the Southeast Quarter (SE ¼)

Lot 74, Section 38, Highland Cemetery

LaDonna McCann

(1) Space \$ 175.00

South Half (S ½) of the Southeast Quarter (SE ¼)

Lot 95, Section 34, Highland Cemetery

Patrice Edwards

(1) Space \$ 175.00

South Half (S ½) of the Northeast Quarter (NE ¼)

Lot 82, Section 23, Highland Cemetery

Dianne Thomas

(1) Space \$ 175.00

North Half (N ½) of the Northeast Quarter (NE ¼)

Lot 82, Section 23, Highland Cemetery

Ervin Johnson

(1) Space \$ 175.00

South Half (S ½) of the Southeast Quarter (SE ¼)

Lot 82, Section 23, Highland Cemetery

Elizabeth Edwards

(1) Space \$ 175.00

North Half (N ½) of the Southeast Quarter (SE ¼)

Lot 82, Section 23, Highland Cemetery

Ora Marshall

(2) Spaces \$ 350.00

Southeast Quarter (SE $\frac{1}{4}$)

Lot 82, Section 38, Highland Cemetery

Margaret Tart

(1) Space \$ 175.00

North Half (N $\frac{1}{2}$) of the Southeast Quarter (SE $\frac{1}{4}$)

Lot 95, Section 34, Highland Cemetery

Bobby Ford

(1) Space \$ 175.00

North Half (N $\frac{1}{2}$) of the Southeast Quarter (SE $\frac{1}{4}$)

Lot 69, Section 35, Highland Cemetery

Kenneth Ray Barnes

(1) Space \$ 175.00

North Half (N $\frac{1}{2}$) of the Southwest Quarter (SW $\frac{1}{4}$)

Lot 57, Section 39, Highland Cemetery

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-25-2025

SOLD TO:

Mr.. Mrs. Miss Charles Edward Lewis

ADDRESS 51 Morrell Cir Hattiesburg MS 39402

desires to purchase the grave space described below, subject to Cemetery regulations.

S $\frac{1}{2}$ SE $\frac{1}{4}$ Lot No. 74 Section No. 38 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

Debit Card

CITY OF HATTIESBURG, MISSISSIPPI

By Jana Monroe
Supt. of City Cemeteries

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-25-2025

SOLD TO:

Mr.. Mrs. Miss LaDonna McCann

ADDRESS 309 West 1st Ave Petal MS 39465

desires to purchase the grave space described below, subject to Cemetery regulations.

S $\frac{1}{2}$ SE $\frac{1}{4}$ Lot No. 95 Section No. 34 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

Debit Card

CITY OF HATTIESBURG, MISSISSIPPI

By Jana Monroe
Supt. of City Cemeteries

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-24-2025

SOLD TO:

Mr.. Mrs. Miss Elizabeth Edwards

ADDRESS 712 Northhill drive Hattiesburg MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

N $\frac{1}{2}$ SE $\frac{1}{4}$ Lot No. 82 Section No. 23 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

Cash

CITY OF HATTIESBURG, MISSISSIPPI

Jana Monroe

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-24-2025

SOLD TO:

Mr. Mrs. Miss Patrice Edwards

ADDRESS 712 Northhill drive Hattiesburg MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

S $\frac{1}{2}$ NE $\frac{1}{4}$ Lot No. 82 Section No. 23 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

cash

CITY OF HATTIESBURG, MISSISSIPPI

By Jana Moncrie
Supt. of City Cemeteries

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-24-2025

SOLD TO:

Mr. Mrs. Miss Ervin Johnson

ADDRESS 712 Northhill drive Hattiesburg, MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

S $\frac{1}{2}$ SE $\frac{1}{4}$ Lot No. 82 Section No. 23 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

Cash

CITY OF HATTIESBURG, MISSISSIPPI

By Jana Moncrie
Supt. of City Cemeteries

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-24-2025

SOLD TO:

Mr. Mrs. Miss Dianne Thomas

ADDRESS 3301 Moye Ave. Hattiesburg MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

N $\frac{1}{2}$ NE $\frac{1}{4}$ Lot No. 82 Section No. 23 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

CITY OF HATTIESBURG, MISSISSIPPI

1

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-27- 2025

SOLD TO:

Mr. Mrs. Miss

Kenneth Ray Barnes

ADDRESS

2840 Woodlane Dr Gautier MS 39553

desires to purchase the grave space described below, subject to Cemetery regulations.

N SW $\frac{1}{4}$ Lot No. 57 Section No. 39 in Highland Cemetery

Number of grave spaces

(1) Price per grave space \$ 175.00

Price Received \$

175.00

CITY OF HATTIESBURG, MISSISSIPPI

By

Jona Monroe
Supt. of City Cemeteries

Debit Card

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-26- 2025

SOLD TO:

Mr. Mrs. Miss

Margaret Tart

ADDRESS

1207 Ida Ave Hattiesburg MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

N SE $\frac{1}{4}$ Lot No. 95 Section No. 34 in Highland Cemetery

Number of grave spaces

1 Price per grave space \$ 175.00

Price Received \$

175.00

CITY OF HATTIESBURG, MISSISSIPPI

By

Jona Monroe
Supt. of City Cemeteries

CK# 2223

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 2-26- 2025

SOLD TO:

Mr. Mrs. Miss

Dra Marshall

ADDRESS

104 Saucier Dr. Hattiesburg MS 39401

desires to purchase the grave space described below, subject to Cemetery regulations.

- SE $\frac{1}{4}$ Lot No. 82 Section No. 38 in Highland Cemetery

Number of grave spaces

2 Price per grave space \$ 175.00

Price Received \$

350.00

CITY OF HATTIESBURG, MISSISSIPPI

By

Jamiea Monroe
Supt. of City Cemeteries

CK# 2223

**CITY OF HATTIESBURG
PURCHASE OF CEMETERY GRAVE SPACES**

Hattiesburg, Miss., 3/6/ 2025

SOLD TO:

Mr. Mrs. Miss Bobby Ford

ADDRESS P.O. Box 245 Hattiesburg MS 39402

desires to purchase the grave space described below, subject to Cemetery regulations.

N 1/4 SE 1/4 Lot No. 69 Section No. 35 in Highland Cemetery

Number of grave spaces 1 Price per grave space \$ 175.00

Price Received \$ 175.00

Debit Card

CITY OF HATTIESBURG, MISSISSIPPI

By Janie Monroe
Supt. of City Cemeteries

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto LaDonna McCann, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

South Half (S½) of the Southeast Quarter (SE¼)
Lot Number 95 Section 34

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Charles Edward Lewis, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

South Half (S½) of the Southeast Quarter (SE¼)
Lot Number 74 Section 38

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Elizabeth Edwards, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Southeast Quarter (SE¼)
Lot Number 82 Section 23

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Ervin Johnson, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

South Half (S½) of the Southeast Quarter (SE¼)
Lot Number 82 Section 23

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Dianne Thomas, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Northeast Quarter (NE¼)
Lot Number 82 Section 23

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kernas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Patrice Edwards, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

South Half (S½) of the Northeast Quarter (NE¼)
Lot Number 82 Section 23

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Kenneth Ray Barnes, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Southwest Quarter (SW¼)
Lot Number 57 Section 39

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

DEED TO CEMETERY LOT
HIGHLAND CEMETERY

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Margaret Tart, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Southeast Quarter (SE¼)
Lot Number 95 Section 34

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

DEED TO CEMETERY LOT
HIGHLAND CEMETERY

For and in consideration of the sum of THREE HUNDRED FIFTY AND NO/100 Dollars (\$350.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto, Ora Marshall, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

Southeast Quarter (SE¼)

Lot Number 82 Section Number 38

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

Two Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day March, 2025

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025

My Commission Expires:

NOTARY PUBLIC

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR
CITY OF HATTIESBURG
HATTIESBURG, MS

**DEED TO CEMETERY LOT
HIGHLAND CEMETERY**

For and in consideration of the sum of ONE HUNDRED SEVENTY-FIVE AND NO/100 Dollars (\$175.00), cash in hand paid to the City of Hattiesburg, Mississippi, the City of Hattiesburg, Mississippi acting by and through its duly authorized Mayor and City Clerk does hereby bargain, sell and convey unto Bobby Ford, subject to the reservations and restrictions hereinafter set out and subject to rules and regulations now or hereafter adopted, the following described grave spaces:

North Half (N½) of the Southeast Quarter (SE¼)
Lot Number 69 Section 35

according to the Cemetery Survey of the City of Hattiesburg, Mississippi known as Highland Cemetery, and containing

One (1) Grave space (s).

SAID Lot shall be used for burial purposes only and all graves therein must be checked and laid out by the Cemetery sexton before the same is dug and must be at least 4 feet deep and shall be, when completed, level with the ground. No shrubbery, vines or trees shall be planted in the Cemetery Lot and there shall be nothing left above the ground except markers which may be erected to meet all City regulations and requirements. All burials in the grave space(s) herein conveyed shall comply with applicable State and Federal laws governing human burial and with City rules and regulations pertaining thereto. If boxes or vaults are used they shall be at least 10 inches below the ground level.

GRANTEE herein shall not sell or convey this lot without a written permit from the Mayor and Council of the City of Hattiesburg, Mississippi.

WITNESS the signature and seal of the City of Hattiesburg, Mississippi, a Municipal Corporation, acting, by and through its duly authorized Mayor and City Clerk, on this, the 18th day of March, 2025.

ATTEST:

CITY OF HATTIESBURG, MISSISSIPPI

CITY CLERK

MAYOR

(S E A L)

STATE OF MISSISSIPPI
COUNTY OF FORREST/LAMAR

Personally, appeared before me, the undersigned authority in and for said County and State, Toby Barker and Kermas Eaton, Mayor and City Clerk, respectively, of the City of Hattiesburg, Mississippi, a municipal corporation, each of whom acknowledged before me that they signed, executed and delivered the above and foregoing Cemetery Deed on the day and year therein mentioned as the act and deed of the City of Hattiesburg after having first been authorized so to do.

Given under my hand and official seal of office on this, the 18th day of March, 2025.

My Commission Expires:

NOTARY PUBLIC



Memorandum

To: Mayor Toby Barker and Members of City Council
From: Kermas Eaton, City Clerk
cc:
Date: Tuesday, March 18, 2025
Re: Approve claims docket for the period ending March 14, 2025.
File Number: 2025-230
Minute Book #

Summary

Approve claims docket for the period ending March 14, 2025.

Recommendation Statement

I recommend approval of this item.

Please place this on the March 18, 2025 City Council meeting for consideration.

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR			INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
001000					BALANCE SHEET					
001000 0520LB					D/F LIBRARY					
002158 AT&T			M8183270010594	2/25 0	2025	6	INV	P	245.98 031425	307615 LONG DISTANCE SERVI
ACCOUNT TOTAL								245.98		
001000 060100					GAS/LUBRICANT-CITY BARN					
003497 MAPLES GAS COMPANY			300339	2502121	2025	6	INV	P	12,812.14 031425	307725 GAS/FUEL STATION
003497 MAPLES GAS COMPANY			300706	2502222	2025	6	INV	P	23,773.48 031425	307725 GAS & DIESEL/FUEL S
								36,585.62		
049752 PIGOTT OIL COMPANY			SI-9583	2502312	2025	6	INV	P	17,127.85 031425	307769 GAS & DIESEL/FUEL S
ACCOUNT TOTAL								53,713.47		
ORG 001000 TOTAL								53,959.45		
001003					CITY COUNCIL					
001003 601000					AUDITING AND ACCOUNTING					
004442 TMH			241163	0	2025	6	INV	P	55,600.00 031425	307810 FOURTH INTERIM BILL
ACCOUNT TOTAL								55,600.00		
001003 606000					TELEPHONE AND TELEGRAPH					
002160 AT&T MOBILITY			287289913717X030525	0	2025	6	INV	P	40.23 031425	307617 MB2016-287/WIRELESS
002160 AT&T MOBILITY			287290252011X030525	0	2025	6	INV	P	201.15 031425	307617 MB2016-287/WIRELESS
								241.38		
ACCOUNT TOTAL								241.38		
001003 611002					TRAVEL EXP-WARD 2					
004017 REGIONS CARDHOLDER S			1892-02/28/25	0	2025	6	INV	P	760.52 031425	307778 1892-02/28 REGIONS
ACCOUNT TOTAL								760.52		
001003 641000					OFFICE EQUIPMENT RENT					
004057 RJ YOUNG COMPANY			INV7237813	0	2025	5	INV	P	61.79 031425	307781 COUNCIL OFFICE COPY
004057 RJ YOUNG COMPANY			INV7384030	0	2025	5	INV	P	63.45 031425	307781 COUNCIL OFFICE COPY
								125.24		
ACCOUNT TOTAL								125.24		
001003 684502					REG FEE/TUITION-WARD 2					
004017 REGIONS CARDHOLDER S			5548-02/28/25	0	2025	6	INV	P	325.00 031425	307778 5548-02/28/25 REGIO
ACCOUNT TOTAL								325.00		
ORG 001003 TOTAL								57,052.14		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR			INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION		
001015 CITY COURT												
001015 5594MC												
003912	PILEUM CORPORATION	P121864	0	2025	6	INV	P	4,900.00	031425	307770	COURT UC POWER BI P	
003912	PILEUM CORPORATION	P121865	0	2025	6	INV	P	4,900.00	031425	307770	COURT UC POWER BI P	
								9,800.00				
ACCOUNT TOTAL								9,800.00				
001015 604800												
002564	COURT PROGRAMS INC	6811215	0	2025	6	INV	P	510.00	031425	307659	GR#1H79TI081923-01C	
ACCOUNT TOTAL								510.00				
001015 604900												
002564	COURT PROGRAMS INC	#126	0	2025	6	INV	P	7,500.00	031425	307659	COURT ANKLE MONI MB	
050404	PRECIOUS TATE JASPER	0016	0	2025	6	INV	P	1,275.00	031425	307775	COURT NON CONTRACT	
050953	CONVILLE & CONVILLE	#2025-002	0	2025	6	INV	P	1,383.75	031425	307658	PROTEM HOURS 2/3,6,	
ACCOUNT TOTAL								10,158.75				
001015 604901												
004017	REGIONS CARDHOLDER S	4341-02/28/25	0	2025	6	INV	P	3,813.48	031425	307778	4341-02/28/25 REGIO	
004057	RJ YOUNG COMPANY	INV7383610	0	2025	5	INV	P	1,478.91	031425	307781	COURT 1.27.25-2.26.	
ACCOUNT TOTAL								5,292.39				
001015 606000												
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV	P	380.66	031425	307617	MB#2016-287/WIRELES	
002160	AT&T MOBILITY	287289913717X030525	0	2025	6	INV	P	40.23	031425	307617	MB2016-287/WIRELESS	
002160	AT&T MOBILITY	287290252011X030525	0	2025	6	INV	P	80.46	031425	307617	MB2016-287/WIRELESS	
								501.35				
ACCOUNT TOTAL								501.35				
001015 611800												
004017	REGIONS CARDHOLDER S	5548-02/28/25	0	2025	6	INV	P	895.00	031425	307778	5548-02/28/25 REGIO	
ACCOUNT TOTAL								895.00				
001015 630000												
004321	SPIRE	G2025- 4-MAR	0	2025	6	INV	P	20.00	031425	307803	SPIRE- VARIOUS DEPT	
ACCOUNT TOTAL								20.00				
ORG 001015 TOTAL								27,177.49				

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR		TYP S	WARRANT	CHECK	DESCRIPTION	
001020 MAYOR/ADMIN.													
001020 501000													
002535 COMSOUTH				209179	2502104	2025	6	INV	P	115.00	031425	307656 REPLACEMENT BATTERY	
004017 REGIONS CARDHOLDER S				1892-02/28/25	0	2025	6	INV	P	69.46	031425	307778 1892-02/28 REGIONS	
004017 REGIONS CARDHOLDER S				2080-02/28/25	0	2025	6	INV	P	166.55	031425	307778 2080-02/28/25 REGIO	
										236.01			
ACCOUNT TOTAL										351.01			
001020 505000													
004017 REGIONS CARDHOLDER S				4524-02/28/25	0	2025	6	INV	P	17.11	031425	307778 4524-02/28/25 REGIO	
ACCOUNT TOTAL										17.11			
001020 511500													
002500 COCA COLA BOTTLING C				45849665039	0	2025	5	INV	P	146.25	031425	307652 WATER-ADMIN OFFICE	
ACCOUNT TOTAL										146.25			
001020 570000													
002160 AT&T MOBILITY				287308925627X030525	0	2025	6	INV	P	47.20	031425	307617 MB2016-287/WIRELESS	
ACCOUNT TOTAL										47.20			
001020 606000													
002160 AT&T MOBILITY				287273578351X030825	0	2025	6	INV	P	56.84	031425	307617 MB#2016-287/WIRELES	
002160 AT&T MOBILITY				287289913717X030525	0	2025	6	INV	P	99.49	031425	307617 MB2016-287/WIRELESS	
002160 AT&T MOBILITY				287290252011X030525	0	2025	6	INV	P	180.52	031425	307617 MB2016-287/WIRELESS	
										336.85			
ACCOUNT TOTAL										336.85			
001020 611000													
004017 REGIONS CARDHOLDER S				4524-02/28/25	0	2025	6	INV	P	1,016.97	031425	307778 4524-02/28/25 REGIO	
ACCOUNT TOTAL										1,016.97			
001020 641000													
003825 OWENS BUSINESS MACHI				509240	0	2025	6	INV	P	32.50	031425	307763 ADMIN-OFFICE COPIER	
ACCOUNT TOTAL										32.50			
001020 684000													
003694 MS MUNICIPAL LEAGUE				37834	0	2025	6	INV	P	200.00	031425	307740 2024 MID WINTER CON	
003694 MS MUNICIPAL LEAGUE				38752	0	2025	6	INV	P	350.00	031425	307740 MML ANNUAL CONFEREN	
003694 MS MUNICIPAL LEAGUE				38858	0	2025	6	INV	P	1,050.00	031425	307740 MS MUNICIPAL LEAGUE	
003694 MS MUNICIPAL LEAGUE				38893	0	2025	6	INV	P	350.00	031425	307740 MML ANNUAL CONFEREN	
003694 MS MUNICIPAL LEAGUE				38912	0	2025	6	INV	P	700.00	031425	307740 MML ANNUAL CONFEREN	

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR			TYP	S	WARRANT	CHECK	DESCRIPTION
										2,650.00			
ACCOUNT TOTAL										2,650.00			
001020	684500				REGISTRATION FEE/TUITION								
003694	MS MUNICIPAL LEAGUE	39702	0	2025	6	INV	P	150.00	031425	307740	MML 2024 SMALL TOWN		
ACCOUNT TOTAL										150.00			
ORG 001020 TOTAL										4,747.89			
ELECTIONS													
001030	612000				FREIGHT								
003395	LAWRENCE PRINTING CO	18361	2502019	2025	5	INV	P	111.31	031425	307718	OFFICIAL ELECTION B		
003395	LAWRENCE PRINTING CO	18363	2501984	2025	6	INV	P	28.72	031425	307718	ABSENTEE BALLOT ENV		
003395	LAWRENCE PRINTING CO	18483	2502115	2025	5	INV	P	10.61	031425	307718	BALLOTS FOR ELECTIO		
										150.64			
ACCOUNT TOTAL										150.64			
001030	620000				PRINTING								
003395	LAWRENCE PRINTING CO	18361	2502019	2025	5	INV	P	5,121.72	031425	307718	OFFICIAL ELECTION B		
003395	LAWRENCE PRINTING CO	18363	2501984	2025	6	INV	P	905.64	031425	307718	ABSENTEE BALLOT ENV		
003395	LAWRENCE PRINTING CO	18483	2502115	2025	5	INV	P	36.00	031425	307718	BALLOTS FOR ELECTIO		
										6,063.36			
ACCOUNT TOTAL										6,063.36			
ORG 001030 TOTAL										6,214.00			
MUNICIPAL CLERK													
001040	501000				OTHER EXPENDABLE OFF.SPL								
004050	RICOH CORP	5070939492	0	2025	6	INV	P	220.86	031425	307780	CHARGES FOR PRODUCT		
ACCOUNT TOTAL										220.86			
001040	606000				TELEPHONE AND TELEGRAPH								
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV	P	41.23	031425	307617	MB#2016-287/WIRELES		
002160	AT&T MOBILITY	287290252011X030525	0	2025	6	INV	P	40.23	031425	307617	MB2016-287/WIRELESS		
										81.46			
ACCOUNT TOTAL										81.46			
001040	615000				ADVERTISING								
003141	HUB CITY SPOKES	105109	0	2025	5	INV	P	137.52	031425	307695	LEGAL NOTICES 2.20.		
051392	GANNETT MEDIA CORP	0006916684	0	2025	6	INV	P	175.87	031425	307682	PBL. FIRE ST 2, BID		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR TYP S			WARRANT	CHECK	DESCRIPTION
						ACCOUNT TOTAL				313.39		
						ORG 001040 TOTAL				615.71		
001042 ACCOUNTING DIV.												
001042	501000					OTHER EXPENDABLE OFF.SPL						
004017	REGIONS	CARDHOLDER	S	5548-02/28/25	0	2025	6	INV	P	99.79	031425	307778 5548-02/28/25 REGIO
						ACCOUNT TOTAL				99.79		
001042 604900												
004017	REGIONS	CARDHOLDER	S	2080-02/28/25	0	2025	6	INV	P	549.00	031425	307778 2080-02/28/25 REGIO
						ACCOUNT TOTAL				549.00		
						ORG 001042 TOTAL				648.79		
001090 URBAN DEVELOPMT												
001090	501000					OTHER EXPENDABLE OFF.SPL						
004017	REGIONS	CARDHOLDER	S	2080-02/28/25	0	2025	6	INV	P	124.99	031425	307778 2080-02/28/25 REGIO
004017	REGIONS	CARDHOLDER	S	5548-02/28/25	0	2025	6	INV	P	118.39	031425	307778 5548-02/28/25 REGIO
										243.38		
						ACCOUNT TOTAL				243.38		
001090 505000												
						SUBSCRIPTIONS,MAGS,MAPS						
004017	REGIONS	CARDHOLDER	S	1892-02/28/25	0	2025	6	INV	P	5.00	031425	307778 1892-02/28 REGIONS
004017	REGIONS	CARDHOLDER	S	4341-02/28/25	0	2025	6	INV	P	74.90	031425	307778 4341-02/28/25 REGIO
004017	REGIONS	CARDHOLDER	S	5548-02/28/25	0	2025	6	INV	P	50.00	031425	307778 5548-02/28/25 REGIO
										129.90		
						ACCOUNT TOTAL				129.90		
001090 508000												
004328	STAPLES	6025886505			2502188	2025	6	INV	P	549.99	031425	307805 PRINTER - TONYA JOR
						ACCOUNT TOTAL				549.99		
001090 525000												
002815	FIRESTONE COMPLETE	A	281826	2501403	2025	6	INV	P	99.95	031425	307679 FIRESTONE CAR MAINT	
						ACCOUNT TOTAL				99.95		
001090 606000												
002160	AT&T MOBILITY	287273578351X030825			0	2025	6	INV	P	59.84	031425	307617 MB#2016-287/WIRELES
						ACCOUNT TOTAL				59.84		
001090 611000												
004017	REGIONS	CARDHOLDER	S	3414-02/28/25	0	2025	6	INV	P	636.06	031425	307778 3414-02/28/25 REGIO

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR		INVOICE		PO	YEAR/PR		TYP	S	WARRANT		CHECK	DESCRIPTION
004017	REGIONS CARDHOLDER S	5548-02/28/25		0	2025	6	INV	P	287.96	031425	307778	5548-02/28/25 REGIO
									924.02			
051148	MERIDIAN MCDANIEL	106240T		0	2025	6	INV	P	272.00	031425	307730	MEMA Floodplain Man
051393	ARRINGTON, DAIJA	106230T		0	2025	6	INV	P	272.00	031425	307611	MEMA Floodplain Man
					ACCOUNT TOTAL				1,468.02			
001090	615000				ADVERTISING							
003141	HUB CITY SPOKES	105216		0	2025	6	INV	P	27.84	031425	307695	Legal Notices- Plan
					ACCOUNT TOTAL				27.84			
001090	684000				DUES AND MEMBERSHIPS							
003753	NATL ASSN OF TOWN WA	23573		0	2025	6	INV	P	35.00	031425	307757	NATW MEMBERSHIP - T
					ACCOUNT TOTAL				35.00			
001090	684500				REGISTRATION FEE/TUITION							
004017	REGIONS CARDHOLDER S	5548-02/28/25		0	2025	6	INV	P	785.00	031425	307778	5548-02/28/25 REGIO
					ACCOUNT TOTAL				785.00			
					ORG 001090 TOTAL				3,398.92			
001091					INFO TECHNOLOGY							
001091	508000				COMPUTER SUPPLIES							
004017	REGIONS CARDHOLDER S	4341-02/28/25		0	2025	6	INV	P	240.74	031425	307778	4341-02/28/25 REGIO
					ACCOUNT TOTAL				240.74			
001091	603500				DATA PROCESSING							
003583	METRIX SOLUTIONS	M121421		2501634	2025	6	INV	P	118,758.19	031425	307731	CYBERSECURITY GRANT
					ACCOUNT TOTAL				118,758.19			
001091	606000				TELEPHONE AND TELEGRAPH							
002160	AT&T MOBILITY	287289913717X030525		0	2025	6	INV	P	213.19	031425	307617	MB2016-287/WIRELESS
002160	AT&T MOBILITY	287290252011X030525		0	2025	6	INV	P	52.27	031425	307617	MB2016-287/WIRELESS
									265.46			
					ACCOUNT TOTAL				265.46			
001091	606800				NETWORK							
002384	C SPIRE (MEGAGATE)	205876-100		0	2025	6	INV	P	679.04	031425	307635	NETWORK/INTERET - M
002384	C SPIRE (MEGAGATE)	3000667134-43		0	2025	6	INV	P	775.00	031425	307635	NETWORK/INTERET - M
002384	C SPIRE (MEGAGATE)	683013-89		0	2025	6	INV	P	8,922.08	031425	307635	NETWORK/INTERET - M
									10,376.12			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION	
ACCOUNT TOTAL							10,376.12			
001091	636500			OFFICE EQUIPMENT R&M						
003342	KRONOS INCORPORATED	12362352	2404757	2025	6	INV P	5,827.50	031425	307713	KRONOS RENEWAL - IT
003531	MCCI LLC	RN21399	0	2025	6	INV P	18,307.14	031425	307727	LASERFICHE MAINTENA
003583	METRIX SOLUTIONS	M121488	2501854	2025	6	INV P	4,949.76	031425	307731	VMWARE VSPHERE RENE
004050	RICOH CORP	5070939492	0	2025	6	INV P	27.77	031425	307780	CHARGES FOR PRODUCT
ACCOUNT TOTAL							29,112.17			
ORG 001091 TOTAL							158,752.68			
001092	GEN.GOV'T.BLDG									
001092	604900			OTHER PROFESSIONAL SERV.						
003681	MS FIRE & SAFETY OF	86443	0	2025	5	INV P	389.00	031425	307739	ANNUAL SERVICE OF F
ACCOUNT TOTAL							389.00			
001092	630000			GAS						
004321	SPIRE	G2025- 4-MAR	0	2025	6	INV P	3,123.51	031425	307803	SPIRE- VARIOUS DEPT
ACCOUNT TOTAL							3,123.51			
001092	635000			BUILDING R&M						
004234	SMITH, JIM SERVICES	i94176	0	2025	6	INV P	251.50	031425	307793	WORK ORDER# 65279 I
ACCOUNT TOTAL							251.50			
001092	639400			DISINFECT./EXTERMINATION						
003040	HAVARD PEST CONTROL	2424545	0	2025	6	INV P	90.00	031425	307690	HAVARD PEST CONTROL
ACCOUNT TOTAL							90.00			
001092	644900			OTHER RENT						
002720	EDWARDS PROPERTY MGM	4/2025	0	2025	6	INV P	1,419.00	031425	307670	4/2025 RENT
ACCOUNT TOTAL							1,419.00			
ORG 001092 TOTAL							5,273.01			
001093	INTERMODAL FAC O&M									
001093	546000			MINOR EQUIPMENT						
002714	ECONOMY SUPPLY CO	139845	2502176	2025	5	INV P	50.00	031425	307668	MATERIAL TO REPAIR
004017	REGIONS CARDHOLDER S	5548-02/28/25	0	2025	6	INV P	999.76	031425	307778	5548-02/28/25 REGIO
ACCOUNT TOTAL							1,049.76			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT		CHECK	DESCRIPTION	
001093	635000			BUILDING R&M							
004272	SOUTHERN FIRE & SPRI	25-11782	0	2025 6	INV	P	525.00	031425	307795	2025 ANN	INSPECTION
ACCOUNT TOTAL							525.00				
001093	639900			OTHER REPAIRS AND MAINT.							
002905	GILLILANDS ELECTRONI	16758	0	2025 5	INV	P	1,160.00	031425	307686	YRLY ALARM	SYS TRAI
ACCOUNT TOTAL							1,160.00				
001093	699900			SERVICES NOT SPECIFIED							
003140	HUB CITY CONSTRUCTIO	APPLICATION 4	2404739	2025 6	INV	P	162,355.50	031425	307694	EMRGNCY REPAIRS;	IN
ACCOUNT TOTAL							162,355.50				
ORG 001093 TOTAL							165,090.26				
001095	G/G INS.OTH SER										
001095	602500			LEGAL							
003090	HICKS LAW FIRM, LLC	11804	0	2025 6	INV	P	500.00	031425	307692	BRYAN SALIBA AND DE	
003090	HICKS LAW FIRM, LLC	11805	0	2025 6	INV	P	2,060.00	031425	307692	COMMUNITY CONNECTIO	
003090	HICKS LAW FIRM, LLC	11806	0	2025 6	INV	P	2,570.10	031425	307692	GERRY MALLORY V COH	
003090	HICKS LAW FIRM, LLC	11807	0	2025 6	INV	P	3,740.00	031425	307692	LIGHTHOUSE RESCUE M	
							8,870.10				
003944	POPE & POPE, PA	2518	0	2025 6	INV	P	9,958.26	031425	307773	7TH STREET INFRASTR	
003944	POPE & POPE, PA	2519	0	2025 6	INV	P	1,200.00	031425	307773	ANNEXATION	
003944	POPE & POPE, PA	2520	0	2025 6	INV	P	850.00	031425	307773	EEOC - DANIELS	
003944	POPE & POPE, PA	2521	0	2025 6	INV	P	3,375.00	031425	307773	GENERAL OUT OF POCK	
003944	POPE & POPE, PA	2522	0	2025 6	INV	P	1,500.00	031425	307773	DIANE JOHNSON WAGE	
003944	POPE & POPE, PA	2523	0	2025 6	INV	P	1,500.00	031425	307773	OAKLEIGH MANOR ESTA	
							18,383.26				
047351	LOWREY & FORTNER PA	20228827	0	2025 6	INV	P	2,000.00	031425	307721	POLICE CITIZEN REVI	
050662	CAREY R VARNADO	1063	0	2025 6	INV	P	500.00	031425	307637	ATTORNEY MONTHLY RE	
ACCOUNT TOTAL							29,753.36				
001095	602701			MEDICAL ANALYSIS-EMP CLINIC							
002523	COMCAST CABLEVISION	MAR.02-MAR 29 2025	0	2025 6	INV	P	211.09	031425	307654	COMCAST BUSINESS-EM	
003576	MEDICAL ANALYSIS-GHV	11305	0	2025 6	INV	P	30,785.97	031425	307729	2/25 EMPLOYEE CLINI	
047011	JANI-KING OF SOUTH E	SEM03250219	2500534	2025 5	INV	P	415.00	031425	307702	TWO-QUOTE JANITORIA	
ACCOUNT TOTAL							31,412.06				
001095	604900			OTHER PROFESSIONAL SERV.							
002327	BROADDUS & ASSOCIATE	4102-32	0	2025 6	INV	P	6,377.50	031425	307632	CONSULT SVC 08-31-2	

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT		CHECK	DESCRIPTION	
003256	JOHNSON CONTROLS, IN	00074111220	2404475	2025	6	INV P	12,940.25	031425	307706	M & V SERVICES AND	
004017	REGIONS CARDHOLDER S	4341-02/28/25	0	2025	6	INV P	2,559.26	031425	307778	4341-02/28/25 REGIO	
ACCOUNT TOTAL							21,877.01				
001095	606000	TELEPHONE AND TELEGRAPH									
002158	AT&T	L2025-02.28	0	2025	6	INV P	3.10	031425	307612	AT&T BLUE LIGHTS ON	
002158	AT&T	L2025. 02.20.25	0	2025	5	INV P	51.52	031425	307612	AT&T, BLUE LIGHTS O	
002158	AT&T	M8183270010594 2/25	0	2025	6	INV P	5,418.89	031425	307615	LONG DISTANCE SERVI	
							5,473.51				
002159	AT&T LONG DISTANCE S	0281479441	0	2025	6	INV P	28.07	031425	307616	ONE NET SERVICE	
047050	C SPIRE (IP)	L2025- 3/1/2025	0	2025	6	INV P	7,455.95	031425	307636	CSPIRE- MSGOV-69259	
ACCOUNT TOTAL							12,957.53				
001095	627000	SURETY AND FORGERY BONDS									
003710	MS STATE/SECRETARY O	2282025	0	2025	5	INV P	75.00	031425	307753	NOTARY APPLICATIONS	
004307	SOUTHGROUP (HATTIESB	260365	0	2025	5	INV P	175.00	031425	307801	RENEWAL BOND - K.EA	
ACCOUNT TOTAL							250.00				
ORG 001095 TOTAL							96,249.96				
001096	FED PROG ADMIN										
001096	602007	HEALTHY HOMES ENV ASSESSMENT									
004413	TERRACON CONSULTANTS	TN49436	0	2025	5	INV P	3,953.75	031425	307808	RADAN TESTING 204 W	
004413	TERRACON CONSULTANTS	TN49494	0	2025	5	INV P	3,833.75	031425	307808	RADON TESTING 305 S	
004413	TERRACON CONSULTANTS	TN49499	0	2025	5	INV P	3,833.75	031425	307808	RADON TESTING - 718	
004413	TERRACON CONSULTANTS	TN49509	0	2025	5	INV P	3,068.75	031425	307808	RADON TESTING 144 W	
							14,690.00				
ACCOUNT TOTAL							14,690.00				
ORG 001096 TOTAL							14,690.00				
001100	POLICE/PUB.SFTY										
001100	525000	GAS AND OIL									
049764	GPM INVESTMENTS-MINI	9803973	0	2025	6	INV P	265.37	031425	307687	2/25 POLICE MINIT M	
ACCOUNT TOTAL							265.37				
001100	535000	UNIFORMS, BADGES, ETC.									
004017	REGIONS CARDHOLDER S	5548-02/28/25	0	2025	6	INV P	243.73	031425	307778	5548-02/28/25 REGIO	
ACCOUNT TOTAL							243.73				

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION	
001100	535500			WEARING APPAREL						
003679	MS EMBROIDERY COMPAN	E22104	2501764	2025	6	INV P	563.94 031425		307738	EMBROIDERY FOR FLEE
004017	REGIONS CARDHOLDER S	1892-02/28/25	0	2025	6	INV P	447.95 031425		307778	1892-02/28 REGIONS
004017	REGIONS CARDHOLDER S	4341-02/28/25	0	2025	6	INV P	259.49 031425		307778	4341-02/28/25 REGIO
004017	REGIONS CARDHOLDER S	5548-02/28/25	0	2025	6	INV P	610.82 031425		307778	5548-02/28/25 REGIO
							1,318.26			
ACCOUNT TOTAL							1,882.20			
001100	570000			MTR	VEHICLE	REP. PTS/SPL				
002060	ADVANCE AUTO PARTS	5604505675563	2502139	2025	6	INV P	3,842.22 031425		307604	PARTS FOR VARIOUS U
002160	AT&T MOBILITY	287308925627X030525	0	2025	6	INV P	4,546.52 031425		307617	MB2016-287/WIRELESS
003713	MS STATE/TAX COMM/UN	2025TAG RENEWAL	0	2025	6	INV P	531.50 031425		307754	TAG RENEWAL PROCESS
ACCOUNT TOTAL							8,920.24			
001100	602700			MEDICAL						
002855	FORREST GENERAL HOSP	06.15.24	0	2025	6	INV P	40.70 031425		307680	POST ACCIDENT
ACCOUNT TOTAL							40.70			
001100	604900			OTHER PROFESSIONAL SERV.						
002471	CINTAS CORPORATION #	4221858706	0	2025	5	INV P	151.96 031425		307643	MAT RENTALS FOR PUB
002471	CINTAS CORPORATION #	4222468590	0	2025	6	INV P	60.98 031425		307643	MAT RENTALS FOR PUB
							212.94			
002522	COMCAST	02.22.25-03.21.25	0	2025	6	INV P	126.77 031425		307653	CONVERTER BOX LEASE
002750	EQUIFAX INFORMATION	2064300278	0	2025	6	INV P	17.48 031425		307676	ONLINE INVESTIGATIO
004453	TRANSUNION RISK AND	362606-202502-1	0	2025	6	INV P	437.40 031425		307812	ONLINE INVESTIGATIO
047187	FOUR SEASONS LAWN	20716	0	2025	6	INV P	2,576.50 031425		307681	LAWN MAINTENANCE FO
051322	LEADSONLINE PARENT,	417115	2501790	2025	6	INV P	3,899.00 031425		307719	SOFTWARE FOR DETECT
ACCOUNT TOTAL							7,270.09			
001100	606000			TELEPHONE AND TELEGRAPH						
002158	AT&T	0563152379001 2/25	0	2025	6	INV P	49.52 031425		307614	POLICE DISPATCH
002158	AT&T	M3182220010593 2/25	0	2025	6	INV P	413.50 031425		307613	POLICE
							463.02			
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV P	592.11 031425		307617	MB#2016-287/WIRELES
002160	AT&T MOBILITY	287289913717X030525	0	2025	6	INV P	9,955.94 031425		307617	MB2016-287/WIRELESS

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR		INVOICE		PO	YEAR/PR	TYP	S	WARRANT		CHECK	DESCRIPTION	
002160	AT&T MOBILITY	287290252011X030525		0	2025	6	INV	P	28.48	031425	307617	MB2016-287/WIRELESS
									10,576.53			
ACCOUNT TOTAL									11,039.55			
001100	611000				TRAVEL EXPENSE							
004017	REGIONS CARDHOLDER S	4341-02/28/25		0	2025	6	INV	P	603.07	031425	307778	4341-02/28/25 REGIO
ACCOUNT TOTAL									603.07			
001100	630500				ELECTRICITY							
003700	MS POWER COMPANY	E2025- 21-FEB		0	2025	5	INV	P	113.73	031425	307742	MISSISSIPPI POWER-
ACCOUNT TOTAL									113.73			
001100	635000				BUILDING R&M							
050034	B & E COMMUNICATIONS	57382		2501225	2025	6	INV	P	998.00	031425	307618	INSTALL DOOR RELEAS
ACCOUNT TOTAL									998.00			
001100	638400				MOTOR VEHICLE EQ. R&M							
003421	LIL TIRE SHOPPE (BR 1129809			2501135	2025	6	INV	P	78.70	031425	307720	REPAIRS TO UNIT# 20
003421	LIL TIRE SHOPPE (BR 1129958			2501272	2025	6	INV	P	600.31	031425	307720	REPAIRS TO UNIT# 1
003421	LIL TIRE SHOPPE (BR 1130387			2501718	2025	6	INV	P	236.09	031425	307720	REPAIRS TO UNIT# 19
003421	LIL TIRE SHOPPE (BR 1130419			2501867	2025	6	INV	P	544.13	031425	307720	REPAIRS TO UNIT# 16
003421	LIL TIRE SHOPPE (BR 1130575			2501872	2025	6	INV	P	487.53	031425	307720	REPAIRS TO UNIT# 19
003421	LIL TIRE SHOPPE (BR 1130603			2501873	2025	6	INV	P	306.69	031425	307720	REPAIRS TO UNIT# 20
003421	LIL TIRE SHOPPE (BR 1130736			2501961	2025	6	INV	P	275.45	031425	307720	REPAIRS TO UNIT# 20
003421	LIL TIRE SHOPPE (BR 1130753			2501954	2025	6	INV	P	149.55	031425	307720	REPAIRS TO UNIT# 20
003421	LIL TIRE SHOPPE (BR 1130798			2502234	2025	6	INV	P	1,481.67	031425	307720	REPAIRS TO UNIT# 19
003421	LIL TIRE SHOPPE (BR 1130840			2502122	2025	6	INV	P	546.94	031425	307720	REPAIRS TO UNIT# 21
									4,707.06			
003476	MAACO COLLISION REPA	40254		2502136	2025	6	INV	P	1,303.40	031425	307723	REPAIRS TO UNIT# 22
003861	PATTERSON AUTO ELECT	82615		2501868	2025	6	INV	P	301.00	031425	307765	REPAIRS TO UNIT# 18
003861	PATTERSON AUTO ELECT	82622		2502128	2025	6	INV	P	197.50	031425	307765	REPAIRS TO UNIT# 17
003861	PATTERSON AUTO ELECT	82697		2501728	2025	6	INV	P	522.50	031425	307765	REPAIRS TO UNIT# 18
003861	PATTERSON AUTO ELECT	82698		2501729	2025	6	INV	P	190.00	031425	307765	REPAIRS TO UNIT# 18
003861	PATTERSON AUTO ELECT	82699		2501869	2025	6	INV	P	706.18	031425	307765	REPAIRS TO UNIT# 16
003861	PATTERSON AUTO ELECT	82700		2501974	2025	6	INV	P	645.00	031425	307765	REPAIRS TO UNIT# 20
003861	PATTERSON AUTO ELECT	82702		2501966	2025	6	INV	P	237.50	031425	307765	REPAIRS TO UNIT# 18
003861	PATTERSON AUTO ELECT	82704		2501973	2025	6	INV	P	570.00	031425	307765	REPAIRS TO UNIT# 20
003861	PATTERSON AUTO ELECT	82719		2502135	2025	6	INV	P	330.00	031425	307765	REPAIRS TO UNIT# 18
003861	PATTERSON AUTO ELECT	82720		2502133	2025	6	INV	P	285.00	031425	307765	REPAIRS TO UNIT# 19
003861	PATTERSON AUTO ELECT	82721		2502134	2025	6	INV	P	1,621.50	031425	307765	REPAIRS TO UNIT# 19
003861	PATTERSON AUTO ELECT	82725		2502132	2025	6	INV	P	475.00	031425	307765	REPAIRS TO UNIT# 19
003861	PATTERSON AUTO ELECT	82733		2502131	2025	6	INV	P	426.50	031425	307765	REPAIRS TO UNIT# 18
003861	PATTERSON AUTO ELECT	82735		2502130	2025	6	INV	P	486.50	031425	307765	REPAIRS TO UNIT# 20
003861	PATTERSON AUTO ELECT	82752		2502241	2025	6	INV	P	565.00	031425	307765	REPAIRS TO UNIT# 16

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR	TYP S	WARRANT	CHECK	DESCRIPTION
								7,559.18		
047486	JASPER ENGINE EXC	14068547	2501198	2025 6	INV P	4,999.00	031425	307703	REPAIRS TO UNIT# 18	
047725	HI-FI CRUISIN	132675	0	2025 6	INV P	180.00	031425	307691	INSTALL/LABOR CHARG	
ACCOUNT TOTAL								18,748.64		
001100 639800 TOW IN CHARGES										
003389	LARRY'S WRECKER SERV 13890	0	2025 6	INV P	70.00	031425	307717	TOWING OF UNIT# 183		
003389	LARRY'S WRECKER SERV 13910	0	2025 6	INV P	70.00	031425	307717	TOWING OF UNIT# 197		
003389	LARRY'S WRECKER SERV 13918	0	2025 6	INV P	70.00	031425	307717	TOWING OF UNIT# 211		
003389	LARRY'S WRECKER SERV 13954	0	2025 6	INV P	70.00	031425	307717	TOWING OF UNIT# 183		
003389	LARRY'S WRECKER SERV 13957	0	2025 6	INV P	100.00	031425	307717	TOWING OF BLACK CHE		
								380.00		
ACCOUNT TOTAL								380.00		
001100 641700 MOTORCYCLE RENT										
049468	EMAG DAYTONA HD LLC 04012025	0	2025 6	INV P	16,500.00	031425	307671	MB 2022-235 MOTOR L		
ACCOUNT TOTAL								16,500.00		
001100 684500 REGISTRATION FEE/TUITION										
003694	MS MUNICIPAL LEAGUE 38858	0	2025 6	INV P	350.00	031425	307740	MS MUNICIPAL LEAGUE		
ACCOUNT TOTAL								350.00		
001100 740000 AUTOMOBILES										
002733	EMERGENCY EQUIPMENT 512634	2402733	2025 6	INV P	52,226.00	031425	307672	EQUIPMENT FOR 7 NEW		
ACCOUNT TOTAL								52,226.00		
ORG 001100 TOTAL								119,581.32		
001131 JOINT P&F TRNG.										
001131 501000 OTHER EXPENDABLE OFF.SPL										
003810	OFFICE PRODUCTS PLUS 1083773-0	2501898	2025 6	INV P	111.92	031425	307762	OFFICE SUPPLIES		
003810	OFFICE PRODUCTS PLUS 1084724-0	2502009	2025 6	INV P	21.75	031425	307762	OFFICE SUPPLIES		
003810	OFFICE PRODUCTS PLUS 1084724-1	2502009	2025 6	INV P	78.09	031425	307762	OFFICE SUPPLIES		
003810	OFFICE PRODUCTS PLUS 1086772-0	2502302	2025 6	INV P	80.34	031425	307762	OFFICE SUPPLIES		
								292.10		
ACCOUNT TOTAL								292.10		
001131 510000 CLEANING/JANITORIAL SPLY										
003810	OFFICE PRODUCTS PLUS 1084724-0	2502009	2025 6	INV P	66.03	031425	307762	OFFICE SUPPLIES		
003810	OFFICE PRODUCTS PLUS 1084724-1	2502009	2025 6	INV P	32.80	031425	307762	OFFICE SUPPLIES		
003810	OFFICE PRODUCTS PLUS 1084724-2	2502009	2025 6	INV P	93.94	031425	307762	OFFICE SUPPLIES		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6		ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
003810	OFFICE PRODUCTS PLUS	1086772-0	2502302	2025	6	INV	P		170.30	031425	307762 OFFICE SUPPLIES
									363.07		
				ACCOUNT TOTAL					363.07		
001131	512000			MEDICAL SUPPLIES							
003810	OFFICE PRODUCTS PLUS	1083773-0	2501898	2025	6	INV	P		62.50	031425	307762 OFFICE SUPPLIES
				ACCOUNT TOTAL					62.50		
001131	546600			HAZ.MAT SUPPLIES							
004320	SPILL TACKLE LLC	10968	2501546	2025	6	INV	P		1,680.00	031425	307802 HAZMAT SUPPLIES- SP
				ACCOUNT TOTAL					1,680.00		
001131	599000			OTHER REPAIR/MAINT. SPL.							
002083	ALLBRITTON CHAIN SAW	108291	2502147	2025	5	INV	P		150.84	031425	307605 LAWN MOWER BLADES
				ACCOUNT TOTAL					150.84		
001131	6110FR			MINOR EQUIPMENT-FIRE							
002663	DILLARD, ROBERT	DILLARD/10636	0	2025	5	INV	P		204.00	031425	307665 DILLARD TRAVEL TO P
003314	KEYS, CODY	KEYS/10633	0	2025	5	INV	P		544.00	031425	307712 KEYS TRAVEL TO PEAR
049907	KENTAVIUS REED	REED/10650	0	2025	6	INV	P		272.00	031425	307709 REED TRAVEL TO PEAR
051383	ROBERSON, JOSHUA	ROBERSON/10632	0	2025	5	INV	P		272.00	031425	307783 ROBERSON TRAVEL TO
				ACCOUNT TOTAL					1,292.00		
001131	630000			GAS							
004321	SPIRE	G2025- 4-MAR	0	2025	6	INV	P		930.08	031425	307803 SPIRE- VARIOUS DEPT
				ACCOUNT TOTAL					930.08		
001131	635000			BUILDING R&M							
049040	RICHARDSON HEATING	1725	2501345	2025	6	INV	P		8,000.00	031425	307779 TWO QUOTE-FIRE & PO
				ACCOUNT TOTAL					8,000.00		
001131	638400			MOTOR VEHICLE EQ. R&M							
003746	NAPA AUTO PARTS	679500	2500300	2025	6	INV	P		153.84	031425	307756 REPAIRS TO TRUCK -
				ACCOUNT TOTAL					153.84		
001131	639400			DISINFECT./EXTERMINATION							
003040	HAVARD PEST CONTROL	2409692	0	2025	6	INV	P		50.00	031425	307690 HAVARD PEST CONTROL
				ACCOUNT TOTAL					50.00		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR		INVOICE		PO	YEAR/PR		TYP	S	WARRANT		CHECK	DESCRIPTION
001131	644900				OTHER RENT							
004682	WOOLWINE LLC DBA DEA 28861			0	2025	6	INV	P	241.58	031425	307827	RENTAL VAN TO BRING
ACCOUNT TOTAL									241.58			
001131	684000				DUES AND MEMBERSHIPS							
004017	REGIONS CARDHOLDER S 4341-02/28/25			0	2025	6	INV	P	270.00	031425	307778	4341-02/28/25 REGIO
ACCOUNT TOTAL									270.00			
001131	6845FR				REGISTRATION-FIRE							
004017	REGIONS CARDHOLDER S 4341-02/28/25			0	2025	6	INV	P	56.00	031425	307778	4341-02/28/25 REGIO
004017	REGIONS CARDHOLDER S 5548-02/28/25			0	2025	6	INV	P	104.00	031425	307778	5548-02/28/25 REGIO
									160.00			
004331	STATE FIRE ACADEMY 10353			0	2025	6	INV	P	500.00	031425	307806	REDONDO & REED ENGI
ACCOUNT TOTAL									660.00			
ORG 001131 TOTAL									14,146.01			
001160	FIRE DIVISION											
001160	501000				OTHER EXPENDABLE OFF.SPL							
003810	OFFICE PRODUCTS PLUS 1085250-0			2502083	2025	6	INV	P	57.70	031425	307762	HFD APPROVAL STAMP
050056	AMAZON CAPITAL 1XRX-434N-6719			2502091	2025	5	INV	P	32.22	031425	307607	HFD OFFICE SUPPLIES
ACCOUNT TOTAL									89.92			
001160	510000				CLEANING/JANITORIAL SPLY							
002471	CINTAS CORPORATION # 4222626174			0	2025	5	INV	P	63.91	031425	307643	HFD MECHANIC SHOP C
004017	REGIONS CARDHOLDER S 5548-02/28/25			0	2025	6	INV	P	73.68	031425	307778	5548-02/28/25 REGIO
048909	BRADY COMPANIES, LLC 9801775			2502103	2025	5	INV	P	651.94	031425	307631	HFD CLEANING & JANI
048909	BRADY COMPANIES, LLC 9807908			2502103	2025	5	INV	P	68.08	031425	307631	HFD CLEANING & JANI
									720.02			
050056	AMAZON CAPITAL 1KRW-NXCC-V71C			2502200	2025	6	INV	P	178.44	031425	307607	HFD STATION & TRUCK
ACCOUNT TOTAL									1,036.05			
001160	511000				HOUSEHOLD SUPPLIES							
050056	AMAZON CAPITAL 1DMP-MQNP-TY3D			2502200	2025	6	INV	P	37.96	031425	307607	HFD STATION & TRUCK
ACCOUNT TOTAL									37.96			
001160	535000				UNIFORMS, BADGES, ETC.							
003588	MID SOUTH UNIFORM & 656853			2501985	2025	5	INV	P	343.30	031425	307732	HFD UNIFORM ITEMS F

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR			INVOICE	PO	YEAR/PR	TYP	S	WARRANT		CHECK	DESCRIPTION	
050056	AMAZON	CAPITAL	1KRW-NXCC-V71C	2502200	2025	6	INV	P	90.25	031425	307607	HFD STATION & TRUCK
050056	AMAZON	CAPITAL	1XRX-434N-6719	2502091	2025	5	INV	P	100.00	031425	307607	HFD OFFICE SUPPLIES
									190.25			
ACCOUNT TOTAL									533.55			
001160	546000	MINOR EQUIPMENT		2502200	2025	6	INV	P	411.15	031425	307607	HFD STATION & TRUCK
050056	AMAZON	CAPITAL	1KRW-NXCC-V71C	2502200	2025	6	INV	P	411.15	031425	307607	HFD STATION & TRUCK
ACCOUNT TOTAL									411.15			
001160	559000	OTHER OPERATING MATL/SPLY		2502193	2025	5	INV	P	85.51	031425	307621	HFD BATTERIES FOR A
002215	BATTERIES PLUS BULBS	P80661020	2502193	2025	5	INV	P	85.51	031425	307621	HFD BATTERIES FOR A	
ACCOUNT TOTAL									85.51			
001160	560500	ELECTRICAL SUPPLIES		0	2025	6	INV	P	405.65	031425	307778	2080-02/28/25 REGIO
004017	REGIONS CARDHOLDER S	2080-02/28/25	0	2025	6	INV	P	405.65	031425	307778	2080-02/28/25 REGIO	
ACCOUNT TOTAL									405.65			
001160	561000	PLUMBING SUPPLIES		2502175	2025	6	INV	P	29.95	031425	307728	HFD STATION 5 REPAI
003543	MCELHANEY PLUMBING I	309900	2502175	2025	6	INV	P	29.95	031425	307728	HFD STATION 5 REPAI	
ACCOUNT TOTAL									29.95			
001160	570000	MTR VEHICLE REP. PTS/SPL		2502113	2025	5	INV	P	580.17	031425	307716	HFD STOCK SUPPLIES
003388	LARD OIL COMPANY	2021403-IN	2502113	2025	5	INV	P	580.17	031425	307716	HFD STOCK SUPPLIES	
003746	NAPA AUTO PARTS	684670	2502138	2025	5	INV	P	96.70	031425	307756	HFD STOCK SUPPLIES	
004017	REGIONS CARDHOLDER S	5548-02/28/25	0	2025	6	INV	P	139.75	031425	307778	5548-02/28/25 REGIO	
ACCOUNT TOTAL									816.62			
001160	575000	COMMUNICATION REPAIR PTS		0	2025	6	INV	P	979.32	031425	307778	2080-02/28/25 REGIO
004017	REGIONS CARDHOLDER S	2080-02/28/25	0	2025	6	INV	P	979.32	031425	307778	2080-02/28/25 REGIO	
ACCOUNT TOTAL									979.32			
001160	606000	TELEPHONE AND TELEGRAPH		0	2025	6	INV	P	59.84	031425	307617	MB#2016-287/WIRELES
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV	P	59.84	031425	307617	MB#2016-287/WIRELES	
002160	AT&T MOBILITY	287290217384X030525	0	2025	6	INV	P	1,555.74	031425	307617	MB2016-287/WIRELESS	
									1,615.58			
ACCOUNT TOTAL									1,615.58			
001160	630000	GAS		0	2025	6	INV	P	630.24	031425	307803	SPIRE- VARIOUS DEPT
004321	SPIRE	G2025- 4-MAR	0	2025	6	INV	P	630.24	031425	307803	SPIRE- VARIOUS DEPT	
004321	SPIRE	G2025-02.25	0	2025	6	INV	P	856.96	031425	307803	SPIRE-VARIOUS DEPTS	

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6		INVOICE	PO	YEAR/PR	TYP S	WARRANT	CHECK	DESCRIPTION				
ACCOUNT/VENDOR												
						1,487.20						
ACCOUNT TOTAL						1,487.20						
001160 630500	ELECTRICITY											
003873 PEARL RIVER VALLEY E	2025-02.28	0	2025 6	INV P	605.86	031425	307767	PEARL RIVER VALLEY				
ACCOUNT TOTAL						605.86						
001160 635000	BUILDING R&M											
002714 ECONOMY SUPPLY CO	139382	2502090	2025 6	INV P	12.70	031425	307668	HFD STATION 5 REPAI				
ACCOUNT TOTAL						12.70						
001160 638000	FIXED EQUIPMENT R&M											
004498 UNDERWOOD DOOR COMPA	16135	2501880	2025 6	INV P	995.00	031425	307814	HFD STATION 6 BAY D				
ACCOUNT TOTAL						995.00						
001160 638900	SCBA EQUIP. R&M											
002215 BATTERIES PLUS BULBS	P80762358	2502239	2025 6	INV P	99.36	031425	307621	HFD BATTERIES FOR A				
ACCOUNT TOTAL						99.36						
001160 639400	DISINFECT./EXTERMINATION											
003040 HAVARD PEST CONTROL	2409687	0	2025 6	INV P	48.00	031425	307690	HAVARD PEST CONTROL				
ACCOUNT TOTAL						48.00						
001160 639900	OTHER REPAIRS AND MAINT.											
002714 ECONOMY SUPPLY CO	139382	2502090	2025 6	INV P	1.95	031425	307668	HFD STATION 5 REPAI				
ACCOUNT TOTAL						1.95						
001160 641000	OFFICE EQUIPMENT RENT											
004050 RICOH CORP	5071015058	0	2025 5	INV P	30.04	031425	307780	HFD ADMIN COPIER RE				
ACCOUNT TOTAL						30.04						
001160 642500	CYLINDER RENT											
004273 SOUTHERN GAS & SUPPL	39179746	0	2025 6	INV P	81.75	031425	307796	HFD MEDICAL OXYGEN				
ACCOUNT TOTAL						81.75						
001160 643500	MOP-MAT-RAG RENT											
002471 CINTAS CORPORATION #	4223444112	0	2025 6	INV P	57.52	031425	307643	HFD ADMIN OFFICE MA				
ACCOUNT TOTAL						57.52						
001160 684000	DUES AND MEMBERSHIPS											
003694 MS MUNICIPAL LEAGUE	38858	0	2025 6	INV P	350.00	031425	307740	MS MUNICIPAL LEAGUE				

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR		INVOICE		PO	YEAR/PR		TYP	S	WARRANT		CHECK	DESCRIPTION
004017	REGIONS CARDHOLDER S	2080-02/28/25		0	2025	6	INV	P	128.00	031425	307778	2080-02/28/25 REGIO
ACCOUNT TOTAL									478.00			
ORG 001160 TOTAL									9,938.64			
001180	LAND DEVEL.ADM.											
001180	500500				PRINTED FORMS							
004050	RICOH CORP	5070939492		0	2025	6	INV	P	75.55	031425	307780	CHARGES FOR PRODUCT
ACCOUNT TOTAL									75.55			
001180	535500				WEARING APPAREL							
004017	REGIONS CARDHOLDER S	1892-02/28/25		0	2025	6	INV	P	94.29	031425	307778	1892-02/28 REGIONS
ACCOUNT TOTAL									94.29			
001180	570000				MTR VEHICLE REP. PTS/SPL							
002160	AT&T MOBILITY	287308925627X030525		0	2025	6	INV	P	283.20	031425	307617	MB2016-287/WIRELESS
ACCOUNT TOTAL									283.20			
001180	601600				TITLE OPINIONS							
004076	ROGERS, KEVIN	03-07-2025		0	2025	6	INV	P	1,000.00	031425	307784	TITLE OPINIONS - 03
ACCOUNT TOTAL									1,000.00			
001180	606000				TELEPHONE AND TELEGRAPH							
002160	AT&T MOBILITY	287273578351X030825		0	2025	6	INV	P	961.72	031425	307617	MB#2016-287/WIRELES
002160	AT&T MOBILITY	287290252011X030525		0	2025	6	INV	P	705.75	031425	307617	MB2016-287/WIRELESS
									1,667.47			
ACCOUNT TOTAL									1,667.47			
001180	611000				TRAVEL EXPENSE							
004017	REGIONS CARDHOLDER S	4341-02/28/25		0	2025	6	INV	P	235.83	031425	307778	4341-02/28/25 REGIO
004017	REGIONS CARDHOLDER S	5548-02/28/25		0	2025	6	INV	P	287.96	031425	307778	5548-02/28/25 REGIO
									523.79			
048782	BATES JAMES KEVIN	106380T/BATES		0	2025	6	INV	P	985.66	031425	307620	TRAVEL ADVANCE - TY
ACCOUNT TOTAL									1,509.45			
001180	620000				PRINTING							
004057	RJ YOUNG COMPANY	INV7357065		0	2025	5	INV	P	164.99	031425	307781	AAA71330 - BUILDING
004057	RJ YOUNG COMPANY	INV7404930		0	2025	6	INV	P	155.99	031425	307781	AAA71330 - BUILDING
									320.98			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION	
ACCOUNT TOTAL							320.98			
001180	684000			DUES AND MEMBERSHIPS						
002279	BOAM	BOAM2025 KBATES	0	2025	6	INV P	100.00	031425	307625	BOAM MEMBERSHIP 202
003694	MS MUNICIPAL LEAGUE	38858	0	2025	6	INV P	175.00	031425	307740	MS MUNICIPAL LEAGUE
ACCOUNT TOTAL							275.00			
ORG 001180 TOTAL							5,225.94			
001191				TRAFFIC MAINT.						
001191	554000			TRAFFIC CONTROL EQ. SPLY.						
002215	BATTERIES PLUS BULBS	P80611646	2501886	2025	6	INV P	104.39	031425	307621	BATTERIES
002535	COMSOUTH	208910	2501738	2025	6	INV P	1,850.00	031425	307656	RADIO
004555	VULCAN SIGNS	R56542	2501770	2025	6	INV P	4,566.00	031425	307818	CONES
ACCOUNT TOTAL							6,520.39			
001191	554500			TRAFFIC SIGNS						
002109	AMERICAN PRINTING &	1160-24	2501958	2025	6	INV P	392.00	031425	307609	STREET MARKERS
002113	AMERICAN SIGNS	1168-24	2502229	2025	6	INV P	540.00	031425	307610	SIGNS
ACCOUNT TOTAL							932.00			
001191	559000			OTHER OPERATING MATL/SPLY						
002795	FASTENAL COMPANY	MSHAT244401	2501182	2025	6	INV P	55.80	031425	307678	VEST
ACCOUNT TOTAL							55.80			
001191	570000			MTR VEHICLE REP. PTS/SPL						
002160	AT&T MOBILITY	287308925627X030525	0	2025	6	INV P	165.20	031425	307617	MB2016-287/WIRELESS
ACCOUNT TOTAL							165.20			
001191	606000			TELEPHONE AND TELEGRAPH						
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV P	170.52	031425	307617	MB#2016-287/WIRELES
ACCOUNT TOTAL							170.52			
001191	638400			MOTOR VEHICLE EQ. R&M						
003861	PATTERSON AUTO ELECT	82705	2502208	2025	6	INV P	971.08	031425	307765	TRUCK REPAIR FORD F
ACCOUNT TOTAL							971.08			
001191	643000			UNIFORM RENT						
002471	CINTAS CORPORATION #	4222624547	0	2025	6	INV P	25.00	031425	307644	TRAFFIC UNIFORM SC/
002471	CINTAS CORPORATION #	4223440900	0	2025	6	INV P	25.00	031425	307644	TRAFFIC UNIFIORM SC

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
									50.00		
ACCOUNT TOTAL									50.00		
001191	643500				MOP-MAT-RAG RENT						
002471	CINTAS	CORPORATION #	4222624171	0	2025	6	INV	P	8.56	031425	307644 TRAFFIC MATS SC/ 82
002471	CINTAS	CORPORATION #	4223440440	0	2025	6	INV	P	8.56	031425	307644 TRAFFIC MATS SC/820
									17.12		
ACCOUNT TOTAL									17.12		
001191	687000				CUSTODIAL SERVICE						
050404	PRECIOUS TATE	JASPER	0003A	2501087	2025	6	INV	P	325.00	031425	307775 TWO-QUOTE JANITORIA
ACCOUNT TOTAL									325.00		
ORG 001191 TOTAL									9,207.11		
001201	STREET DIV.										
001201	535500				WEARING APPAREL						
003216	J M H GRAPHICS		45382	2502220	2025	6	INV	P	492.00	031425	307700 UNIFORM SHIRTS/RON
ACCOUNT TOTAL									492.00		
001201	540000				ASPHALT & ASPHALT PROD.						
004586	WARREN	PAVING INC	103449	2502004	2025	6	INV	P	863.17	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103518	2502004	2025	6	INV	P	165.82	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103648	2502004	2025	6	INV	P	607.98	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103661	2502004	2025	6	INV	P	464.28	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103718	2502004	2025	6	INV	P	270.83	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103798	2502004	2025	6	INV	P	209.11	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103826	2502004	2025	6	INV	P	328.87	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103968	2502004	2025	6	INV	P	400.72	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	103982	2502004	2025	6	INV	P	504.82	031425	307821 ASPHALT/VARIOUS LOC
004586	WARREN	PAVING INC	104034	0	2025	6	INV	P	278.20	031425	307821 ASPHALT/VARIOUS LOC
									4,093.80		
ACCOUNT TOTAL									4,093.80		
001201	540500				CONCRETE, CEMENT, ETC.						
047525	DELTA INDUSTRIES		874956	2501700	2025	6	INV	P	870.00	031425	307664 CONCRETE SLAPS FOR
047525	DELTA INDUSTRIES		875270	2501893	2025	6	INV	P	830.00	031425	307664 CONCRETE/VARIOUS LO
									1,700.00		
ACCOUNT TOTAL									1,700.00		
001201	559000				OTHER OPERATING MATL/SPLY						
002471	CINTAS	CORPORATION #	4222624536	0	2025	6	INV	P	12.10	031425	307644 HAND SANITIZER AND

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6		ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
002471	CINTAS CORPORATION #	4223441033	0	2025	6	INV	P		12.10	031425	307644 HAND SANITIZER AND
									24.20		
002714	ECONOMY SUPPLY CO	140324	2502289	2025	6	INV	P		29.50	031425	307668 DOOR LOCK AND KEY S
									53.70		
001201	570000										
002160	AT&T MOBILITY	287308925627X030525	0	2025	6	INV	P	MTR VEHICLE REP. PTS/SPL	354.00	031425	307617 MB2016-287/WIRELESS
003746	NAPA AUTO PARTS	002115	2502270	2025	6	INV	P		79.54	031425	307756 PARTS/UNIT 14700
004297	SOUTHERN TIRE MART (	2520178196	2502337	2025	6	INV	P		1,487.60	031425	307799 TIRES/UNIT 20067 &
									1,921.14		
001201	604900										
048836	PAYTON, RAY A.	585	0	2025	6	INV	P	OTHER PROFESSIONAL SERV.	2,300.00	031425	307766 WEEKLY MAINTENANCE
048917	MS CONCRETE PROF	0000254	0	2025	6	INV	P		4,750.00	031425	307737 CITY WIDE CONCRETE
048966	MARTINEZ DAVID J	181	0	2025	6	INV	P		5,000.00	031425	307726 WEEKLY MAINTENANCE-
048966	MARTINEZ DAVID J	182	0	2025	6	INV	P		1,400.00	031425	307726 WEEKLY MAINTENANCE-
048966	MARTINEZ DAVID J	183	0	2025	6	INV	P		1,000.00	031425	307726 WEEKLY MAINTENANCE-
									7,400.00		
									14,450.00		
001201	636099										
047056	WARREN PAVING INC	2404721.1	2404721	2025	6	INV	P	LONG RANGE PAVING PLAN	16,630.50	031425	307822 PINEHILLS DR. THERM
047056	WARREN PAVING INC	2500700.1	2500700	2025	6	INV	P		9,266.15	031425	307822 STRIPING ADELINE ST
047056	WARREN PAVING INC	2500701.1	2500701	2025	6	INV	P		4,280.40	031425	307822 STRIPING MEDICAL BO
047056	WARREN PAVING INC	2500702.1	2500702	2025	5	INV	P		71,475.10	031425	307822 STRIPING LINCOLN RO
047056	WARREN PAVING INC	2500717.1	2500717	2025	6	INV	P		20,857.60	031425	307822 PAVING BARNES CIRCL
									122,509.75		
									122,509.75		
001201	638400										
004297	SOUTHERN TIRE MART (	2520176375	2501991	2025	6	INV	P	MOTOR VEHICLE EQ. R&M	792.29	031425	307799 SERVICE CALL/UNIT 2
									792.29		
001201	638700										
002083	ALLBRITTON CHAIN SAW	19550	2502255	2025	6	INV	P	AGRICULTURAL EQ. R&M	211.29	031425	307605 REPAIRS/WEED EATERS
002083	ALLBRITTON CHAIN SAW	19552	2502253	2025	6	INV	P		144.87	031425	307605 REPAIRS/ZERO TURN M
									356.16		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6				ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION	
002577		CRAIN TRACTOR & EQUI		R084748			2502089	2025	6	INV	P	1,175.72	031425	307660 ADDTION TO PO 25013
ACCOUNT TOTAL											1,531.88			
001201		643000		UNIFORM RENT										
002471		CINTAS CORPORATION # 4222624365		0			2025	6	INV	P	37.77	031425	307644	UNIFORM RENTALS
002471		CINTAS CORPORATION # 4222624370		0			2025	6	INV	P	113.64	031425	307643	UNIFORM RENTALS
002471		CINTAS CORPORATION # 4222624386		0			2025	6	INV	P	87.28	031425	307643	UNIFORM RENTALS
002471		CINTAS CORPORATION # 4222624503		0			2025	6	INV	P	44.89	031425	307643	UNIFORM RENTALS/SC
002471		CINTAS CORPORATION # 4222624524		0			2025	6	INV	P	23.13	031425	307644	MAT RENTALS
002471		CINTAS CORPORATION # 4223440755		0			2025	6	INV	P	31.80	031425	307644	UNIFORM RENTALS
002471		CINTAS CORPORATION # 4223440783		0			2025	6	INV	P	37.77	031425	307644	UNIFORM RENTALS
002471		CINTAS CORPORATION # 4223440970		0			2025	6	INV	P	87.28	031425	307643	UNIFORM RENTALS
002471		CINTAS CORPORATION # 4223440976		0			2025	6	INV	P	44.89	031425	307643	UNIFORM RENTALS
002471		CINTAS CORPORATION # 4223441035		0			2025	6	INV	P	23.13	031425	307644	UNIFORM RENTALS
											531.58			
ACCOUNT TOTAL											531.58			
001201		684500		REGISTRATION FEE/TUITION										
003694		MS MUNICIPAL LEAGUE		38858			0	2025	6	INV	P	350.00	031425	307740 MS MUNICIPAL LEAGUE
ACCOUNT TOTAL											350.00			
ORG 001201 TOTAL											148,426.14			
001202		STREET LIGHTS												
001202		630500		ELECTRICITY										
003700		MS POWER COMPANY		E2025- 2/21/2025B	0		2025	5	INV	P	50.72	031425	307743	MISSISSIPPI POWER-
003700		MS POWER COMPANY		E2025- 20-FEB	0		2025	5	INV	P	101.40	031425	307741	MISSISSIPPI POWER-
003700		MS POWER COMPANY		E2025- 3/4/2025B	0		2025	6	INV	P	138.84	031425	307749	MISSISSIPPI POWER-V
003700		MS POWER COMPANY		E2025- 3/5/2025B	0		2025	6	INV	P	50.13	031425	307751	MISSISSIPPI POWER-8
003700		MS POWER COMPANY		E2025-02.25	0		2025	6	INV	P	89.66	031425	307745	MISSISSIPPI POWER-1
003700		MS POWER COMPANY		E2025-02.26	0		2025	6	INV	P	50.13	031425	307744	MISSISSIPPI POWER-3
003700		MS POWER COMPANY		E2025-02.27	0		2025	6	INV	P	151.44	031425	307746	MISSISSIPPI POWER-V
003700		MS POWER COMPANY		E2025-02.28	0		2025	6	INV	P	124.73	031425	307747	MISSISSIPPI POWER-6
003700		MS POWER COMPANY		E2025-03.07	0		2025	6	INV	P	151.44	031425	307752	MISSISSIPPI POWER-V
											908.49			
003873		PEARL RIVER VALLEY		E 2025 02.20.25	0		2025	5	INV	P	18.00	031425	307767	PEARL RIVER VALLEY-
003873		PEARL RIVER VALLEY		E 2025 02.26.25	0		2025	6	INV	P	2,764.46	031425	307767	PEARL RIVER VALLEY-
003873		PEARL RIVER VALLEY		E 2025 02.28.25B	0		2025	6	INV	P	396.00	031425	307767	PEARL RIVER VALLEY-
003873		PEARL RIVER VALLEY		E 2025-02.24	0		2025	6	INV	P	1,369.94	031425	307767	PEARL RIVER VALLEY
003873		PEARL RIVER VALLEY		E 2025-02.27	0		2025	6	INV	P	661.00	031425	307767	PEARL RIVER VALLEY
003873		PEARL RIVER VALLEY		E 2025-02.28	0		2025	6	INV	P	137.90	031425	307767	PEARL RIVER VALLEY
											5,347.30			
ACCOUNT TOTAL											6,255.79			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION		
					ORG 001202	TOTAL			6,255.79				
					ENGR/PUBLIC SER								
001203					BUILDING MATERIALS & SPL								
001203	560000				2502221	2025	6	INV	P	19.90	031425	307728	PLUMBING PARTS TO R
003543	MCELHANEY PLUMBING I 310151												
					ACCOUNT TOTAL			19.90					
					MTR VEHICLE REP. PTS/SPL								
001203	570000				0	2025	6	INV	P	165.20	031425	307617	MB2016-287/WIRELESS
002160	AT&T MOBILITY 287308925627X030525												
					ACCOUNT TOTAL			165.20					
					ENGINEERING								
001203	601500				0	2025	6	INV	P	4,400.00	031425	307758	MB 2021-373 MS4 STO
003764	NEEL-SCHAFFER INC 1104214												
004197	SHOWS DEARMAN & WAIT 24951				0	2025	6	INV	P	942.50	031425	307789	MB 2012-1/34 RAISED
004197	SHOWS DEARMAN & WAIT 24976				0	2025	6	INV	P	2,507.50	031425	307789	MB 2012-1/34 SULLIV
004197	SHOWS DEARMAN & WAIT 24984				0	2025	6	INV	P	2,897.50	031425	307789	MB 2012-1/34 ELKS L
								6,347.50					
					ACCOUNT TOTAL			10,747.50					
					TELEPHONE AND TELEGRAPH								
001203	606000				0	2025	6	INV	P	125.66	031425	307617	MB#2016-287/WIRELES
002160	AT&T MOBILITY 287273578351X030825				0	2025	6	INV	P	204.60	031425	307617	MB2016-287/WIRELESS
002160	AT&T MOBILITY 287289913717X030525				0	2025	6	INV	P	80.46	031425	307617	MB2016-287/WIRELESS
002160	AT&T MOBILITY 287290252011X030525				0	2025	6	INV	P				
								410.72					
					ACCOUNT TOTAL			410.72					
					GAS								
001203	630000				0	2025	6	INV	P	405.87	031425	307803	SPIRE- VARIOUS DEPT
004321	SPIRE G2025- 4-MAR												
					ACCOUNT TOTAL			405.87					
					BUILDING R&M								
001203	635000				0	2025	6	INV	P	104.60	031425	307736	REPLACE LOCK ON ENG
003645	MOORE'S LOCK AND KEY 31149												
					ACCOUNT TOTAL			104.60					
					OFFICE EQUIPMENT RENT								
001203	641000				0	2025	6	INV	P	298.44	031425	307781	MB 2022-316 COPIER
004057	RJ YOUNG COMPANY INV7379870				0	2025	6	INV	P	50.00	031425	307781	MB 2022-377 CANON/C
004057	RJ YOUNG COMPANY INV7383515				0	2025	6	INV	P				
								348.44					
					ACCOUNT TOTAL			348.44					
					REGISTRATION FEE/TUITION								
001203	684500												

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR			TYP	S	WARRANT	CHECK	DESCRIPTION
003694	MS MUNICIPAL LEAGUE	38858		0	2025	6	INV	P			350.00	031425	307740 MS MUNICIPAL LEAGUE
003694	MS MUNICIPAL LEAGUE	38966		0	2025	6	INV	P			350.00	031425	307740 MML ANNUAL CONFEREN
											700.00		
ACCOUNT TOTAL											700.00		
001203	687000				CUSTODIAL SERVICE								
050404	PRECIOUS TATE JASPER	0003A		2501087	2025	6	INV	P			325.00	031425	307775 TWO-QUOTE JANITORIA
ACCOUNT TOTAL											325.00		
ORG 001203 TOTAL											13,227.23		
001204					SHOP DIVISION								
001204	630000				GAS								
004321	SPIRE	G2025- 4-MAR		0	2025	6	INV	P			1,736.06	031425	307803 SPIRE- VARIOUS DEPT
ACCOUNT TOTAL											1,736.06		
001204	643000				UNIFORM RENT								
002471	CINTAS CORPORATION #	4222624474		0	2025	5	INV	P			39.80	031425	307643 UNIFORM RENTAL/PW S
002471	CINTAS CORPORATION #	4223440880		0	2025	6	INV	P			39.80	031425	307643 UNIFORM RENTAL/PWSH
											79.60		
ACCOUNT TOTAL											79.60		
ORG 001204 TOTAL											1,815.66		
001205					G O & F S DIV.								
001205	604900				OTHER PROFESSIONAL SERV.								
050079	MAGNOLIA STATION	0002119-IN		0	2025	6	INV	P			1,424.88	031425	307724 REPAIRS TO SEVERAL
051159	INTEVACON FLEET CARD	9808247		0	2025	6	INV	P			250.00	031425	307699 MONTHLY ACCESS FEE/
ACCOUNT TOTAL											1,674.88		
001205	639400				DISINFECT./EXTERMINATION								
003040	HAVARD PEST CONTROL	2409704		0	2025	6	INV	P			250.00	031425	307690 HAVARD PEST CONTROL
ACCOUNT TOTAL											250.00		
ORG 001205 TOTAL											1,924.88		
001206					DRAINAGE DIV.								
001206	606000				TELEPHONE AND TELEGRAPH								
002160	AT&T MOBILITY	287290252011x030525		0	2025	6	INV	P			542.46	031425	307617 MB2016-287/WIRELESS
ACCOUNT TOTAL											542.46		
001206	729500				OTHER IMPROVEMENTS								

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
003118	HOMESTEAD DIRT WORKS			1344	2502223	2025	6	INV	P	9,500.00	031425	307693 TWO QUOTE/DRAINAGE
004197	SHOWS DEARMAN & WAIT			24952	0	2025	6	INV	P	23,000.00	031425	307789 MB 2012-1/34 2024 S
004197	SHOWS DEARMAN & WAIT			24953	0	2025	6	INV	P	310.00	031425	307789 MB 2012-1/34 GROVE
004197	SHOWS DEARMAN & WAIT			24956	0	2025	6	INV	P	1,193.22	031425	307789 MB 2021-386 FOUNTAI
										24,503.22		
ACCOUNT TOTAL										34,003.22		
ORG 001206 TOTAL										34,545.68		
CONSTRUCTION												
001207	546000				MINOR EQUIPMENT							
001207	546000				MINOR EQUIPMENT							
004256	SOLAR SUPPLY INC			3487845	2502117	2025	6	INV	P	469.00	031425	307794 TOOL SUPPLIES FOR C
ACCOUNT TOTAL										469.00		
OTHER OPERATING MATL/SPLY												
001207	559000				OTHER OPERATING MATL/SPLY							
003543	MCELHANEY PLUMBING I			309858	2502120	2025	5	INV	P	15.90	031425	307728 PARTS FOR PRESSURE
003543	MCELHANEY PLUMBING I			309899	2502177	2025	5	INV	P	19.95	031425	307728 SPRAYER FOR CONST D
										35.85		
ACCOUNT TOTAL										35.85		
BUILDING MATERIALS & SPLY												
001207	560000				BUILDING MATERIALS & SPLY							
002883	GARNER LUMLEY ELECTR			616883	2502187	2025	5	INV	P	420.24	031425	307683 MATERIAL FOR HUBFES
ACCOUNT TOTAL										420.24		
ELECTRICAL SUPPLIES												
001207	560500				ELECTRICAL SUPPLIES							
002883	GARNER LUMLEY ELECTR			616883	2502187	2025	5	INV	P	887.16	031425	307683 MATERIAL FOR HUBFES
002883	GARNER LUMLEY ELECTR			617168	2502332	2025	6	INV	P	2,321.05	031425	307683 ELECTRICAL SUPPLIES
002883	GARNER LUMLEY ELECTR			617219	2502359	2025	6	INV	P	1,581.00	031425	307683 MATERIAL FOR HUBFES
										4,789.21		
003742	N & H ELECTRONIC DIS			250290	2502225	2025	6	INV	P	9.62	031425	307755 NTE FOR HUBFEST 202
ACCOUNT TOTAL										4,798.83		
PAINT AND PAINTING SPLY.												
001207	565000				PAINT AND PAINTING SPLY.							
004176	SHERWIN-WILLIAMS COM			9100-8	2502256	2025	6	INV	P	50.45	031425	307788 PAINT FOR DAHMER PL
ACCOUNT TOTAL										50.45		
MTR VEHICLE REP. PTS/SPL												
001207	570000				MTR VEHICLE REP. PTS/SPL							
004514	UNIVERSITY TIRE & SE			INV250198	2502092	2025	5	INV	P	488.00	031425	307816 TIRES FOR UNIT#1955
004514	UNIVERSITY TIRE & SE			INV250378	2502092	2025	5	INV	P	86.00	031425	307816 TIRES FOR UNIT#1955
										574.00		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6									
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
ACCOUNT TOTAL							574.00		
001207 604900	OTHER PROFESSIONAL SERV.								
002523 COMCAST CABLEVISION	02.25-03.21	0	2025	6	INV	P	146.33	031425	307654 COMCAST-CIVIL DEFEN
003191 INTERFACE SECURITY S	20863126	0	2025	5	INV	P	53.26	031425	307698 SECURITY SYSTEM/TWI
051400 ABATEMENT CONTRACTOR	03/11/25	0	2025	6	INV	P	900.00	031425	307602 715 ARLEDGE, CITY B
ACCOUNT TOTAL							1,099.59		
001207 606000	TELEPHONE AND TELEGRAPH								
002160 AT&T MOBILITY	287273578351X030825	0	2025	6	INV	P	59.84	031425	307617 MB#2016-287/WIRELES
ACCOUNT TOTAL							59.84		
001207 638300	GENERATOR R&M								
048984 DOLEAC ELEC (REFUND) AX3X1		2501629	2025	5	INV	P	1,160.00	031425	307666 GENERATOR REPAIR/AI
ACCOUNT TOTAL							1,160.00		
001207 643000	UNIFORM RENT								
002471 CINTAS CORPORATION # 4222624325		0	2025	5	INV	P	187.50	031425	307642 UNIFORM RENTAL/CONS
002471 CINTAS CORPORATION # 4223440710		0	2025	6	INV	P	53.90	031425	307643 UNIFORM RENTAL/CONS
							241.40		
ACCOUNT TOTAL							241.40		
ORG 001207 TOTAL							8,909.20		
SANITATION DIV.									
001220 510000	CLEANING/JANITORIAL SPLY								
002471 CINTAS CORPORATION # 4222624180		0	2025	6	INV	P	43.43	031425	307643 SC8200044758- SANIT
002471 CINTAS CORPORATION # 4222624254		0	2025	6	INV	P	28.74	031425	307644 SC8200044758- SANIT
							72.17		
ACCOUNT TOTAL							72.17		
001220 570000	MTR VEHICLE REP. PTS/SPL								
002160 AT&T MOBILITY	287308925627X030525	0	2025	6	INV	P	613.60	031425	307617 MB2016-287/WIRELESS
002739 EMPIRE TRUCK SALES	CE006232905:01	2502296	2025	6	INV	P	456.49	031425	307673 PARTS-AIR TANK-UNIT
002739 EMPIRE TRUCK SALES	CE006232908:01	2502297	2025	6	INV	P	58.21	031425	307673 PARTS-ALIGNING BEAR
							514.70		
004297 SOUTHERN TIRE MART (	2520177263	2502168	2025	5	INV	P	471.00	031425	307799 TIRES-UNIT 20074
004297 SOUTHERN TIRE MART (	2520177264	2502167	2025	5	INV	P	471.00	031425	307799 TIRES-UNIT 21983

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION		
							942.00				
ACCOUNT TOTAL							2,070.30				
001220	604900			OTHER PROFESSIONAL SERV.							
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV P	118.68	031425	307617	MB#2016-287/WIRELES	
002160	AT&T MOBILITY	287290252011X030525	0	2025	6	INV P	573.02	031425	307617	MB2016-287/WIRELESS	
							691.70				
004202	SIGMA CONSULTING AND	90471	2500305	2025	6	INV P	160.00	031425	307790	CHEMICAL TRAINING/C	
ACCOUNT TOTAL							851.70				
001220	638400			MOTOR VEHICLE EQ. R&M							
002739	EMPIRE TRUCK SALES	RE00040605:05	2501975	2025	6	INV P	532.19	031425	307673	REPAIRS-UNIT 20071	
004120	SANSOM EQUIPMENT CO	W03937	2501483	2025	5	INV P	757.00	031425	307785	REPAIRS-MARLIN BOX	
004139	SCOTTS HYDRAULIC SER	62918	2502186	2025	5	INV P	733.42	031425	307786	REPAIRS-BOOM REPAIR	
004139	SCOTTS HYDRAULIC SER	63021	2502286	2025	6	INV P	584.49	031425	307786	REPAIRS-TIRE REPAIR	
004139	SCOTTS HYDRAULIC SER	63056	2502299	2025	6	INV P	2,146.29	031425	307786	REPAIRS-UNIT 21387	
							3,464.20				
ACCOUNT TOTAL							4,753.39				
001220	639800			TOW IN CHARGES							
003253	JOHNNY'S WRECKER SER	49067	0	2025	5	INV P	450.00	031425	307705	TOW IN SERVICES-UNI	
003253	JOHNNY'S WRECKER SER	49075	0	2025	5	INV P	350.00	031425	307705	TOWING SERVICES-UNI	
							800.00				
ACCOUNT TOTAL							800.00				
001220	643000			UNIFORM RENT							
002471	CINTAS CORPORATION #	4222624758	0	2025	6	INV P	247.27	031425	307642	SC8200044758- SANIT	
ACCOUNT TOTAL							247.27				
001220	688000			TIPPING FEES							
003920	PINE BELT REGIONAL S	8253	0	2025	6	INV P	35,313.47	031425	307771	MB# 2023-181 RUBBIS	
004591	WASTE MANAGEMENT OF	0014361-2526-2	0	2025	6	INV P	3,548.99	031425	307823	SANITATION RUBBISH	
051374	WASTE PRO OF MS, INC	16448	0	2025	6	INV P	12,320.50	031425	307824	FN 2025-121-DISPOSA	
051374	WASTE PRO OF MS, INC	16449	0	2025	6	INV P	8,637.00	031425	307824	DISPOSAL OF WASTE T	
							20,957.50				
ACCOUNT TOTAL							59,819.96				

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6									
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
			ORG 001220	TOTAL	68,614.79				
001250 HEALTH DIVISION									
001250	575500		AGRICLTRL	REPAIR	PTS/SPL				
003843	PARISH TRACTOR (HATT P23313		2502086	2025	6	INV P	921.31	031425	307764 PARTS/ZERO TURN MOW
004297	SOUTHERN TIRE MART (2520176894		2502078	2025	6	INV P	580.00	031425	307799 LAWNMOWER TRIES/UNI
			ACCOUNT TOTAL	1,501.31					
			ORG 001250	TOTAL	1,501.31				
001280 HUMAN/SOC.ASST									
001280	682022		RAILS TO TRAILS						
003874	PEARL TO LEAF RIVER 2 28 2025		0	2025	5	INV P	128,000.00	031425	307768 1/4 MILL CONTRIBUTI
			ACCOUNT TOTAL	128,000.00					
			ORG 001280	TOTAL	128,000.00				
001402 ECONOMIC DEV.									
001402	604900		OTHER PROFESSIONAL SERV.						
002466	CHRIS ALBRITTON CONS GORDON CR COM #1		0	2025	6	INV P	131,048.86	031425	307641 MB 2023-14 GORDON C
003764	NEEL-SCHAFFER INC 1104145		0	2025	6	INV P	1,094.05	031425	307758 MB 2011-4/307 DOLEA
003764	NEEL-SCHAFFER INC 1104217		0	2025	6	INV P	10,580.75	031425	307758 MB 2021-454 EDWARDS
003764	NEEL-SCHAFFER INC 1104220		0	2025	6	INV P	5,750.00	031425	307758 MB 2022-491 WM CARE
			17,424.80						
049419	MISSISSIPPI POWER TATUM PARK FIELD 16		0	2025	6	INV P	482,900.00	031425	307734 MB 2022-424 TATUM P
			ACCOUNT TOTAL	631,373.66					
001402 729524									
050855	CULPEPPER CONSTRUCTI TIMBERTONPAYAPP#9		0	TIMBERTON PARK-FEMA	2025	6	INV P	158,227.15	031425 307662 TIMBERTON COMPLEX F
			ACCOUNT TOTAL	158,227.15					
			ORG 001402	TOTAL	789,600.81				
001551 AIRPORT DIV.									
001551	630000		GAS						
004321	SPIRE G2025- 4-MAR		0	2025	6	INV P	38.49	031425	307803 SPIRE- VARIOUS DEPT
			ACCOUNT TOTAL	38.49					
			ORG 001551	TOTAL	38.49				

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR		INVOICE		PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
001553				CEMETERY DIV						
001553	501000				OTHER EXPENDABLE	OFF.SPL				
004017	REGIONS CARDHOLDER S	2080-02/28/25		0	2025 6	INV P		202.09 031425	307778	2080-02/28/25 REGIO
					ACCOUNT TOTAL			202.09		
001553	502000				MINOR OFFICE EQUIP/FURN.					
003825	OWENS BUSINESS MACHI	509241		0	2025 6	INV P		33.86 031425	307763	MONTHLY MAINTANENCE
					ACCOUNT TOTAL			33.86		
001553	570000				MTR VEHICLE REP. PTS/SPL					
002160	AT&T MOBILITY	287308925627X030525		0	2025 6	INV P		259.60 031425	307617	MB2016-287/WIRELESS
					ACCOUNT TOTAL			259.60		
001553	604900				OTHER PROFESSIONAL SERV.					
003634	MOLLY MAID	0325		0	2025 6	INV P		415.00 031425	307735	CLEANINGS AT HIGHLA
					ACCOUNT TOTAL			415.00		
001553	606000				TELEPHONE AND TELEGRAPH					
002160	AT&T MOBILITY	287273578351X030825		0	2025 6	INV P		58.84 031425	307617	MB#2016-287/WIRELES
					ACCOUNT TOTAL			58.84		
001553	611000				TRAVEL EXPENSE					
004017	REGIONS CARDHOLDER S	5548-02/28/25		0	2025 6	INV P		170.82 031425	307778	5548-02/28/25 REGIO
					ACCOUNT TOTAL			170.82		
001553	630000				GAS					
004321	SPIRE	G2025- 4-MAR		0	2025 6	INV P		461.34 031425	307803	SPIRE- VARIOUS DEPT
					ACCOUNT TOTAL			461.34		
001553	630500				ELECTRICITY					
003873	PEARL RIVER VALLEY E	2025 02.26.25		0	2025 6	INV P		45.62 031425	307767	PEARL RIVER VALLEY-
					ACCOUNT TOTAL			45.62		
001553	638400				MOTOR VEHICLE EQ. R&M					
004297	SOUTHERN TIRE MART (	2520178140		2502330	2025 6	INV P		331.00 031425	307799	TIRE FOR UNIT # 220
					ACCOUNT TOTAL			331.00		
001553	643000				UNIFORM RENT					
002471	CINTAS CORPORATION #	4222626657		0	2025 6	INV P		113.28 031425	307643	ST CONT 8200044758
002471	CINTAS CORPORATION #	4223444513		0	2025 6	INV P		113.28 031425	307643	ST. CONT#8200044758
								226.56		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR		TYP S	WARRANT	CHECK	DESCRIPTION
						ACCOUNT TOTAL				226.56		
001553 643500						MOP-MAT-RAG RENT						
002471		CINTAS CORPORATION # 4180148450		0	2025	6	INV P	32.32	031425	307644	ST CONT 8200044758	
002471		CINTAS CORPORATION # 4222626604		0	2025	6	INV P	28.71	031425	307644	ST CONT 8200044758	
002471		CINTAS CORPORATION # 4223444331		0	2025	6	INV P	28.71	031425	307644	ST. CONT#8200044758	
								89.74				
						ACCOUNT TOTAL				89.74		
						ORG 001553		TOTAL		2,294.47		
001560						PARKING OPER.						
001560		640200										
003789		NORFOLK SOUTHERN COR 94042644		0	2025	6	INV P	2,489.82	031425	307761	MONTHLY LEASE POST	
						ACCOUNT TOTAL				2,489.82		
						ORG 001560		TOTAL		2,489.82		
FUND 001 General Fund						TOTAL:				1,959,613.59		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6		ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
002300				PKS/REC-RECREATION MAINT. DIV.							
002300	501000			OTHER EXPENDABLE OFF.SPL							
004017	REGIONS	CARDHOLDER S	4341-02/28/25	0	2025	6	INV	P	21.39	031425	307778 4341-02/28/25 REGIO
				ACCOUNT TOTAL					21.39		
002300	510000			CLEANING/JANITORIAL SPLY							
003810	OFFICE	PRODUCTS PLUS	1086303-0	2502228	2025	6	INV	P	117.70	031425	307762 JANITORIAL SUPPLIES
003810	OFFICE	PRODUCTS PLUS	1086303-1	2502228	2025	6	INV	P	194.04	031425	307762 JANITORIAL SUPPLIES
003810	OFFICE	PRODUCTS PLUS	1086756-0	2502300	2025	6	INV	P	196.33	031425	307762 JANITORIAL SUPPLIES
003810	OFFICE	PRODUCTS PLUS	1086897-0	2502316	2025	6	INV	P	282.42	031425	307762 JANITORIAL SUPPLIES
									790.49		
048909	BRADY COMPANIES, LLC		9820385	2502194	2025	6	INV	P	142.50	031425	307631 JANITORIAL SUPPLIES
				ACCOUNT TOTAL					932.99		
002300	513000			CHEMICALS							
049595	SITEONE	LANDSCAPE	149710039-001	2501803	2025	6	INV	P	1,325.00	031425	307792 CHEMICALS FOR ATHLE
				ACCOUNT TOTAL					1,325.00		
002300	525000			GAS AND OIL							
001002	CITY OF HATTIESBURG		2/28/25 FUND 2	0	2025	6	INV	P	5,702.44	031425	307645 FUEL USAGE 2/1/25-2
				ACCOUNT TOTAL					5,702.44		
002300	525700			DIESEL FUEL							
001002	CITY OF HATTIESBURG		2/28/25 FUND 2	0	2025	6	INV	P	56.00	031425	307645 FUEL USAGE 2/1/25-2
				ACCOUNT TOTAL					56.00		
002300	541500			SAND, CLAY, GRVL, FILL DIRT							
002714	ECONOMY	SUPPLY CO	140195	2502249	2025	6	INV	P	40.75	031425	307668 TATUM PARK SUPPLIES
				ACCOUNT TOTAL					40.75		
002300	551000			RECREATIONAL SUPPLIES							
002083	ALLBRITTON	CHAIN SAW	108527	2502204	2025	6	INV	P	548.82	031425	307605 SHOP SUPPLIES
002304	BRACKMAN	MOWER WAREH	63152	2502206	2025	6	INV	P	293.87	031425	307629 SHOP SUPPLIES
002492	CLEMTS	HARDWARE	132769	2500508	2025	6	INV	P	101.97	031425	307651 SHOP SUPPLIES
004495	ULINE		189785639	2502196	2025	6	INV	P	192.00	031425	307813 TRASH CANS
048827	CARQUEST		000844	2502307	2025	6	INV	P	59.76	031425	307638 SHOP SUPPLIES
049595	SITEONE	LANDSCAPE	149268509-001	2501472	2025	6	INV	P	2,000.00	031425	307792 FIELD SUPPLIES FOR
049595	SITEONE	LANDSCAPE	150225764-001	2502146	2025	6	INV	P	1,418.88	031425	307792 TURF SUPPLIES

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6				ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION	
											3,418.88			
ACCOUNT TOTAL											4,615.30			
002300	559000	OTHER OPERATING MATL/SPLY												
002714	ECONOMY	SUPPLY CO	139751	2502155	2025	5	INV	P	43.90	031425	307668	DEADBOLT FOR DUNCAN		
002714	ECONOMY	SUPPLY CO	139752	2502156	2025	5	INV	P	43.90	031425	307668	DEADBOLT FOR EASTSI		
002714	ECONOMY	SUPPLY CO	139753	2502154	2025	5	INV	P	87.00	031425	307668	DEADBOLT FOR CHAIN		
											174.80			
004401	TAYLOR RENTAL CENTER	1-357837-03		2502020	2025	5	INV	P	184.80	031425	307807	SHOP SUPPLIES/RENTA		
ACCOUNT TOTAL											359.60			
002300	560000	BUILDING MATERIALS & SPLY												
002714	ECONOMY	SUPPLY CO	139599	2502094	2025	6	INV	P	43.90	031425	307668	SHOP SUPPLIES/LOCK		
003543	MCELHANEY PLUMBING I	310030	2502203	2025	6	INV	P	7.03	031425	307728	ICE MAKER SUPPLIES			
ACCOUNT TOTAL											50.93			
002300	560500	ELECTRICAL SUPPLIES												
002901	GILKEY ELECTRIC SUPP	399923	2500572	2025	6	INV	P	79.32	031425	307685	VETERANS PARK ELECT			
ACCOUNT TOTAL											79.32			
002300	561000	PLUMBING SUPPLIES												
003302	KEELING COMPANY (HAT	S4635850.001	0	2025	5	INV	P	17.88	031425	307708	PLUMBING SUPPLIES F			
003543	MCELHANEY PLUMBING I	309843	2502212	2025	6	INV	P	59.95	031425	307728	PLUMBING SUPPLIES/C			
003543	MCELHANEY PLUMBING I	310224	2502333	2025	6	INV	P	28.95	031425	307728	PLUMBING SUPPLIES/T			
											88.90			
ACCOUNT TOTAL											106.78			
002300	565000	PAINT AND PAINTING SPLY.												
049595	SITEONE LANDSCAPE	149163507-001	2501367	2025	6	INV	P	2,796.15	031425	307792	PAINT FOR TATUM			
ACCOUNT TOTAL											2,796.15			
002300	570000	MTR VEHICLE REP. PTS/SPL												
002160	AT&T MOBILITY	287308925627x030525	0	2025	6	INV	P	849.60	031425	307617	MB2016-287/WIRELESS			
004017	REGIONS CARDHOLDER S	2080-02/28/25	0	2025	6	INV	P	2,670.00	031425	307778	2080-02/28/25 REGIO			
004297	SOUTHERN TIRE MART (	2520175090	2501773	2025	6	INV	P	110.50	031425	307799	TRUCK PARTS			
048827	CARQUEST	000045	2501061	2025	6	INV	P	152.50	031425	307638	TRUCK MAINT UNIT #1			
048827	CARQUEST	000930	2502308	2025	6	INV	P	179.75	031425	307638	TRUCK PARTS UNIT#21			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6				ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
332.25													
ACCOUNT TOTAL											3,962.35		
002300	575500			AGRICLTRL	REPAIR	PTS/SPL							
002304	BRACKMAN	MOWER	WAREH	63146	2502148	2025	6	INV	P	160.95	031425	307629	SHOP SUPPLIES
002304	BRACKMAN	MOWER	WAREH	63147	2502149	2025	6	INV	P	767.27	031425	307629	MOWER REPAIR UNIT#2
002304	BRACKMAN	MOWER	WAREH	63151	2502199	2025	6	INV	P	236.05	031425	307629	MOWER PARTS
002304	BRACKMAN	MOWER	WAREH	63172	2502227	2025	6	INV	P	489.90	031425	307629	MOWER PARTS
002304	BRACKMAN	MOWER	WAREH	63245	2501914	2025	6	INV	P	32.00	031425	307629	MOWER PARTS
002304	BRACKMAN	MOWER	WAREH	63422	2502329	2025	6	INV	P	89.91	031425	307629	BLOWER PARTS
											1,776.08		
003843	PARISH	TRACTOR	(HATT	P23311	2502072	2025	6	INV	P	546.38	031425	307764	TRACTOR PARTS
004499	UNDERWOOD	OUTDOOR	PO	137715	2501907	2025	6	INV	P	402.00	031425	307815	MOWER PARTS
049329	BRACKMAN'S	STEPPING		63176	2502250	2025	6	INV	P	608.86	031425	307630	MOWER REPAIR 21096
ACCOUNT TOTAL											3,333.32		
002300	606000			TELEPHONE AND TELEGRAPH									
002160	AT&T MOBILITY		287273578351X030825	0	2025	6	INV	P	113.68	031425	307617	MB#2016-287/WIRELES	
ACCOUNT TOTAL											113.68		
002300	612000			FREIGHT									
004495	ULINE		189785639	2502196	2025	6	INV	P	42.53	031425	307813	TRASH CANS	
ACCOUNT TOTAL											42.53		
002300	635000			BUILDING R&M									
050934	CLASSEN HOMES LLC		2502014	2501647	2025	6	INV	P	1,335.00	031425	307650	SAN ANTONIO FIELD R	
ACCOUNT TOTAL											1,335.00		
002300	636000			STREETS & STRUCTURES R&M									
002930	GRAY BUILDERS		INV 02/26/25	2501670	2025	5	INV	P	8,750.00	031425	307688	OSEOLA MCCARTY PAVI	
003764	NEEL-SCHAFFER INC		1104142	0	2025	6	INV	P	6,123.09	031425	307758	MB 2023-41 TIMBERTO	
ACCOUNT TOTAL											14,873.09		
002300	638000			FIXED EQUIPMENT R&M									
002957	GROVER BROS RESTAURA		246661	2502197	2025	6	INV	P	3,575.00	031425	307689	ICE MAKER REPAIR AT	
ACCOUNT TOTAL											3,575.00		
002300	638400			MOTOR VEHICLE EQ. R&M									
002361	BURKETT RADIATOR SHO		68851	2502202	2025	6	INV	P	367.00	031425	307633	TRUCK MAINT UNIT #1	

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S		WARRANT	CHECK	DESCRIPTION
003746	NAPA AUTO PARTS	001100	2501808	2025	6	INV	P	48.94	031425	307756 TRUCK MAINT UNIT #2
004297	SOUTHERN TIRE MART (	2520167779	2500401	2025	6	INV	P	85.52	031425	307799 TRUCK MAINT/OIL CHA
004297	SOUTHERN TIRE MART (	2520176167	2501992	2025	6	INV	P	634.96	031425	307799 TRUCK MAINT UNIT #1
004297	SOUTHERN TIRE MART (	2520177163	2502161	2025	6	INV	P	1,006.76	031425	307799 TRUCK MAINT UNIT#18
								1,727.24		
ACCOUNT TOTAL								2,143.18		
002300	638700		AGRICULTURAL EQ. R&M							
003380	LANCASTER'S MACHINE	025864	2501065	2025	6	INV	P	760.00	031425	307715 MOWER REPAIR UNIT#2
004297	SOUTHERN TIRE MART (	2520176347	2502012	2025	6	INV	P	188.33	031425	307799 MOWER REPAIR #21622
004297	SOUTHERN TIRE MART (	2520176867	2502080	2025	6	INV	P	35.00	031425	307799 MOWER REPAIR UNIT#1
								223.33		
ACCOUNT TOTAL								983.33		
002300	639400		DISINFECT./EXTERMINATION							
003040	HAVARD PEST CONTROL	2409742	0	2025	6	INV	P	83.00	031425	307690 HAVARD PEST CONTROL
004017	REGIONS CARDHOLDER S	3414-02/28/25	0	2025	6	INV	P	36.82	031425	307778 3414-02/28/25 REGIO
ACCOUNT TOTAL								119.82		
002300	643000		UNIFORM RENT							
002471	CINTAS CORPORATION #	4222461859	0	2025	6	INV	P	419.58	031425	307642 PR GROUNDS UNIFORM
ACCOUNT TOTAL								419.58		
002300	644900		OTHER RENT							
002471	CINTAS CORPORATION #	4223194419	0	2025	6	INV	P	47.46	031425	307643 PR GROUNDS MAT RENT
002471	CINTAS CORPORATION #	4223194982	0	2025	6	INV	P	601.73	031425	307642 PR GROUNDS UNIFORM
002471	CINTAS CORPORATION #	5258290103	0	2025	6	INV	P	73.51	031425	307643 PR GROUNDS MEDICAL
								722.70		
004281	SOUTHERN ON SITE STO	111690	2502211	2025	6	INV	P	795.00	031425	307797 PORTABLE RENTAL
ACCOUNT TOTAL								1,517.70		
002300	687000		CUSTODIAL SERVICE							
047011	JANI-KING OF SOUTH E	SEM03250218	2500534	2025	5	INV	P	415.00	031425	307702 TWO-QUOTE JANITORIA
ACCOUNT TOTAL								415.00		
002300	699900		SERVICES NOT SPECIFIED							
002049	ADAMS NURSERY	317556	2501797	2025	6	INV	P	242.00	031425	307603 JUNIPER REPLACEMENT

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
002100	AMERICAN AIR SPECIAL	127077		0	2025	6	INV	P	251.25 031425	307608	ICE MACHINE REPAIR
002471	CINTAS CORPORATION #	4222461391		0	2025	6	INV	P	47.46 031425	307643	PR GROUNDS MAT RENT
003040	HAVARD PEST CONTROL	2424567		0	2025	6	INV	P	69.00 031425	307690	PEST CONTROL TATUM
004234	SMITH, JIM SERVICES	I94425		0	2025	6	INV	P	182.75 031425	307793	WIRING REPAIR TATUM
047187	FOUR SEASONS LAWN	20561		0	2025	6	INV	P	350.00 031425	307681	LAWN MAINTENANCE 38
047187	FOUR SEASONS LAWN	20642		0	2025	6	INV	P	325.00 031425	307681	LAWN MAINTENANCE HA
047187	FOUR SEASONS LAWN	20671		0	2025	6	INV	P	650.00 031425	307681	LAWN MAINTENANCE LA
047187	FOUR SEASONS LAWN	20762		0	2025	6	INV	P	2,251.00 031425	307681	LAWN MAINTENANCE HA
									3,576.00		
050462	SHADE LANDSCAPE	2159		0	2025	6	INV	P	1,000.00 031425	307787	FEBRUARY MONTHLY LA
ACCOUNT TOTAL									5,368.46		
ORG 002300 TOTAL									54,288.69		
002315	PKS/REC-REC.ADMIN/COM.REL.										
002315	511500	FOOD									
004017	REGIONS CARDHOLDER S	3414-02/28/25		0	2025	6	INV	P	72.60 031425	307778	3414-02/28/25 REGIO
004575	WALMART STORES INC	52969871383468512321	2501845	2025	5	INV	P		27.94 031425	307819	FEB FOOD SUPPLIES F
ACCOUNT TOTAL									100.54		
002315	551000	RECREATIONAL SUPPLIES									
003937	PLAY IT AGAIN SPORTS	002291	2502085	2025	6	INV	P		756.00 031425	307772	ADULT BASKETBALL PR
004017	REGIONS CARDHOLDER S	5548-02/28/25		0	2025	6	INV	P	581.19 031425	307778	5548-02/28/25 REGIO
ACCOUNT TOTAL									1,337.19		
002315	551001	RECREATIONAL SUPP-ARTS CENTER									
004017	REGIONS CARDHOLDER S	5548-02/28/25		0	2025	6	INV	P	27.98 031425	307778	5548-02/28/25 REGIO
004575	WALMART STORES INC	84955790171681334110	2501846	2025	5	INV	P		30.10 031425	307819	FEBRUARY SUPPLIES F
ACCOUNT TOTAL									58.08		
002315	603400	OFFICIALS									
002540	CONNER, TOBARRA	TCONNER222		0	2025	6	INV	P	300.00 031425	307657	YOUTH BASKETBALL FE
003287	JORDAN, ALEX X	AJORDAN309		0	2025	6	INV	P	75.00 031425	307707	ADULT BASKETBALL MA
003313	KETTLEY, ANNETTE	AKETTLEY222		0	2025	6	INV	P	135.00 031425	307710	YOUTH BASKETBALL FE
003958	POWELL, RANDY	RPOWELL222		0	2025	6	INV	P	135.00 031425	307774	YOUTH BASKETBALL FE

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT		CHECK	DESCRIPTION			
004432	THOMPSON, JESSE	JTHOMPSON220	0	2025	6	INV	P	225.00	031425	307809	ADULT	BASKETBALL	FE
004432	THOMPSON, JESSE	JTHOMPSON309	0	2025	6	INV	P	75.00	031425	307809	ADULT	BASKETBALL	MA
								300.00					
048357	KEYS GLENN	GKEYS222	0	2025	6	INV	P	75.00	031425	307711	YOUTH	BASKETBALL	FE
048590	CRAWFORD OTTO	OCRAWFORD220	0	2025	6	INV	P	250.00	031425	307661	ADULT	BASKETBALL	FE
051375	BENNETT JERMAINE	JBENNETT220	0	2025	6	INV	P	475.00	031425	307622	ADULT	BASKETBALL	FE
051376	GIBBS VICTOR L JR.	VGIBBS220	0	2025	6	INV	P	375.00	031425	307684	ADULT	BASKETBALL	FE
051376	GIBBS VICTOR L JR.	VGIBBS301	0	2025	6	INV	P	75.00	031425	307684	YOUTH	BASKETBALL	MA
								450.00					
051377	VINCENT, LITONJUA	VLITONJUA220	0	2025	6	INV	P	550.00	031425	307817	ADULT	BASKETBALL	FE
051377	VINCENT, LITONJUA	VLITONJUA222	0	2025	6	INV	P	75.00	031425	307817	YOUTH	BASKETBALL	FE
051377	VINCENT, LITONJUA	VLITONJUA301	0	2025	6	INV	P	75.00	031425	307817	YOUTH	BASKETBALL	MA
								700.00					
051396	BONEY BRAYLLON KYLE	BBONEY301	0	2025	6	INV	P	50.00	031425	307626	YOUTH	BASKETBALL	MA
051397	BONEY CHLOE	CBONEY301	0	2025	6	INV	P	50.00	031425	307627	YOUTH	BASKETBALL	MA
051398	NEWSOME CALVIN	CNEWSOME220	0	2025	6	INV	P	125.00	031425	307759	ADULT	BASKETBALL	MA
051398	NEWSOME CALVIN	CNEWSOME222	0	2025	6	INV	P	50.00	031425	307759	YOUTH	BASKETBALL	FE
								175.00					
ACCOUNT TOTAL								3,170.00					
002315	604900			OTHER PROFESSIONAL SERV.									
003313	KETTLEY, ANNETTE	AKETTLEY220	0	2025	6	INV	P	280.00	031425	307710	ADULT	BASKETBALL	FE
003313	KETTLEY, ANNETTE	AKETTLEY309	0	2025	6	INV	P	30.00	031425	307710	ADULT	BASKETBALL	MA
								310.00					
003958	POWELL, RANDY	RPOWELL220	0	2025	6	INV	P	405.00	031425	307774	ADULT	BASKETBALL	FE
003958	POWELL, RANDY	RPOWELL309	0	2025	6	INV	P	60.00	031425	307774	ADULT	BASKETBALL	MA
								465.00					
047581	PROTECTION AGENCY &	001578	0	2025	5	INV	P	1,050.00	031425	307776	ADULT	FALL/WINTER	B
049349	JESSICA R POWELL	JPOWELL220	0	2025	6	INV	P	250.00	031425	307704	ADULT	BASKETBALL	FE
049349	JESSICA R POWELL	JPOWELL309	0	2025	6	INV	P	30.00	031425	307704	ADULT	BASKETBALL	MA
								280.00					
ACCOUNT TOTAL								2,105.00					

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6									
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
002315	606000			TELEPHONE AND TELEGRAPH					
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV P	113.68	031425	307617 MB#2016-287/WIRELES
002160	AT&T MOBILITY	287290252011X030525	0	2025	6	INV P	225.50	031425	307617 MB2016-287/WIRELESS
							339.18		
				ACCOUNT TOTAL			339.18		
002315	630000			GAS					
004321	SPIRE	G2025- 4-MAR	0	2025	6	INV P	20.00	031425	307803 SPIRE- VARIOUS DEPT
				ACCOUNT TOTAL			20.00		
002315	630500			ELECTRICITY					
003700	MS POWER COMPANY	E2025- 4-MAR	0	2025	6	INV P	57.76	031425	307748 MISSISSIPPI POWER-2
				ACCOUNT TOTAL			57.76		
002315	638800			RECREATIONAL EQ. R&M					
004017	REGIONS CARDHOLDER S	4341-02/28/25	0	2025	6	INV P	20.97	031425	307778 4341-02/28/25 REGIO
				ACCOUNT TOTAL			20.97		
002315	639400			DISINFECT./EXTERMINATION					
003040	HAVARD PEST CONTROL	2424544	0	2025	6	INV P	74.00	031425	307690 HAVARD PEST CONTROL
				ACCOUNT TOTAL			74.00		
002315	684000			DUES AND MEMBERSHIPS					
004017	REGIONS CARDHOLDER S	3414-02/28/25	0	2025	6	INV P	1,049.00	031425	307778 3414-02/28/25 REGIO
				ACCOUNT TOTAL			1,049.00		
002315	684500			REGISTRATION FEE/TUITION					
003694	MS MUNICIPAL LEAGUE	38858	0	2025	6	INV P	350.00	031425	307740 MS MUNICIPAL LEAGUE
004017	REGIONS CARDHOLDER S	1892-02/28/25	0	2025	6	INV P	180.00	031425	307778 1892-02/28 REGIONS
				ACCOUNT TOTAL			530.00		
				ORG 002315	TOTAL		8,861.72		
FUND 002 PARKS & RECREATION FUND				TOTAL:			63,150.41		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
008201				SPEC.ST.IMPR-STREET DIV.							
008201 636000				STREETS & STRUCTURES R&M							
047056 WARREN PAVING INC				2501827.1	2501827	2025	6	INV P	35,843.11	031425	307822 PAVING 63RD STREET/
ACCOUNT TOTAL									35,843.11		
ORG 008201 TOTAL									35,843.11		
FUND 008 SPECIAL STREET IMPR.FUND									TOTAL: 35,843.11		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6		ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP S	WARRANT	CHECK	DESCRIPTION
009660										
009660	501000									
		004327	STANDARD	OFFICE SUPP	H37721-00	2501980	2025 6 INV P	56.49	031425	307804 OFFICE SUPPLIES WAT
		004327	STANDARD	OFFICE SUPP	H37852-00	2501980	2025 6 INV P	42.34	031425	307804 OFFICE SUPPLIES WAT
								98.83		
								ACCOUNT TOTAL		98.83
009660	525000									
		001002	CITY OF HATTIESBURG	2/28/25 FUND 9		0	GAS AND OIL 2025 6 INV P	1,169.51	031425	307647 FUEL USAGE 2/1/25 -
								ACCOUNT TOTAL		1,169.51
009660	604900									
		002181	BADGER METER INC	80188392		0	OTHER PROFESSIONAL SERV. 2025 6 INV P	11,465.69	031425	307619 MB 2018-832 BEACON
		003645	MOORE'S LOCK AND KEY	31136		0	2025 6 INV P	110.00	031425	307736 REPLACE REKEY CYLIN
								ACCOUNT TOTAL		11,575.69
009660	606000									
		002160	AT&T MOBILITY	287273578351X030825	0		TELEPHONE AND TELEGRAPH 2025 6 INV P	175.18	031425	307617 MB#2016-287/WIRELES
		002160	AT&T MOBILITY	287290252011X030525	0		2025 6 INV P	40.23	031425	307617 MB2016-287/WIRELESS
								215.41		
								ACCOUNT TOTAL		215.41
009660	607000									
		047562	ENCO UTILITY	INV70192		0	POSTAGE 2025 6 INV P	3,335.31	031425	307674 MB 2020-835 RT 1 BI
								ACCOUNT TOTAL		3,335.31
009660	620000									
		047562	ENCO UTILITY	INV70192		0	PRINTING 2025 6 INV P	1,107.13	031425	307674 MB 2020-835 RT 1 BI
								ACCOUNT TOTAL		1,107.13
009660	643000									
		002471	CINTAS CORPORATION #	4222626032		0	UNIFORM RENT 2025 6 INV P	41.71	031425	307643 STATE CONTRACT 8200
								ACCOUNT TOTAL		41.71
009660	687000									
		050404	PRECIOUS TATE JASPER	0003A			CUSTODIAL SERVICE 2501087 2025 6 INV P	358.00	031425	307775 TWO-QUOTE JANITORIA
								ACCOUNT TOTAL		358.00
							ORG 009660 TOTAL	17,901.59		

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6		ACCOUNT/VENDOR		INVOICE		PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
009672												
009672	525000											
001002	CITY OF HATTIESBURG	2/28/25	FUND 9		0		2025	6	INV	P	4,260.89	031425 307647 FUEL USAGE 2/1/25 -
											4,260.89	
009672	525700											
001002	CITY OF HATTIESBURG	2/28/25	FUND 9		0		2025	6	INV	P	479.29	031425 307647 FUEL USAGE 2/1/25 -
											479.29	
009672	545000											
003987	PUCKETT RENTS	1099959-0001			2502185		2025	6	INV	P	239.18	031425 307777 PROBING RODS FOR WA
											239.18	
009672	561000											
002442	CENTRAL PIPE SUPPLY	S100386146.004			2404901		2025	5	INV	P	954.00	031425 307640 WAREHOUSE STOCK FOR
002442	CENTRAL PIPE SUPPLY	S100400931.004			2501930		2025	5	INV	P	59.70	031425 307640 MB2024-305 : PLUMBI
002442	CENTRAL PIPE SUPPLY	S100400931.005			2501930		2025	5	INV	P	489.00	031425 307640 MB2024-305 : PLUMBI
											1,502.70	
004284	SOUTHERN PIPE & SUPP	445942-00			2501956		2025	6	INV	P	1,563.28	031425 307798 WAREHOUSE STOCK FOR
004300	SOUTHERN WATERWORKS	100836			2501753		2025	6	INV	P	3,007.79	031425 307800 WAREHOUSE STOCK FOR
											6,073.77	
009672	570000											
002646	DELK'S TIRE SALES AN	47913			0		2025	6	INV	P	105.00	031425 307663 TIRE FOR UNIT # 216
003861	PATTERSON AUTO ELECT	82670			2502099		2025	5	INV	P	1,338.47	031425 307765 REPAIRS TO UNIT # 1
048827	CARQUEST	002133			2502293		2025	6	INV	P	21.10	031425 307638 REPAIR PARTS FOR UN
048827	CARQUEST	002147			2502292		2025	6	INV	P	7.55	031425 307638 REPAIR PARTS FOR UN
											28.65	
											1,472.12	
											12,525.25	
009673												
009673	513000											
003179	INDUSTRIAL CHEMICALS	563000			2502077		2025	6	INV	P	4,960.00	031425 307697 SODIUM FLUOROSILICA
											4,960.00	
009673	525000											
001002	CITY OF HATTIESBURG	2/28/25	FUND 9		0		2025	6	INV	P	494.79	031425 307647 FUEL USAGE 2/1/25 -

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6									
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
ACCOUNT TOTAL							494.79		
009673	559000	OTHER OPERATING MATL/SPLY							
002274	BLOSSMAN GAS INC	31092284	2502323	2025	6	INV P	78.00	031425	307623 PROPANE CYLINDERS F
002883	GARNER LUMLEY ELECTR	23663	0	2025	6	INV P	99.88	031425	307683 FLOOD LAMPS FOR WAT
ACCOUNT TOTAL							177.88		
009673	570000	MTR VEHICLE REP. PTS/SPL							
002160	AT&T MOBILITY	287308925627X030525	0	2025	6	INV P	967.60	031425	307617 MB2016-287/WIRELESS
003861	PATTERSON AUTO ELECT	82682	2502210	2025	6	INV P	309.13	031425	307765 REPAIRS TO UNIT # 2
003861	PATTERSON AUTO ELECT	82740	2502209	2025	6	INV P	399.50	031425	307765 REPAIRS TO UNIT # 1
							708.63		
ACCOUNT TOTAL							1,676.23		
009673	604900	OTHER PROFESSIONAL SERV.							
002288	BONNER ANALYTICAL TE	86183	0	2025	6	INV P	1,636.50	031425	307628 ROUTINE COLIFORM TE
002380	BYRD, WADE J.	BYRD032025	0	2025	6	INV P	3,000.00	031425	307634 OPERATOR OF RECORD,
002471	CINTAS CORPORATION #	4222626050	0	2025	6	INV P	91.41	031425	307643 SC#8200044758: MOPS
003614	MISSION COMMUNICATIO	2005752	0	2025	6	INV P	1,042.20	031425	307733 ANNUAL SERVICE, VAR
ACCOUNT TOTAL							5,770.11		
009673	630500	ELECTRICITY							
003700	MS POWER COMPANY	E2025- 5-MAR	0	2025	6	INV P	50.48	031425	307750 MISSISSIPPI POWER-1
003700	MS POWER COMPANY	E2025-02.27	0	2025	6	INV P	647.12	031425	307746 MISSISSIPPI POWER-V
							697.60		
003873	PEARL RIVER VALLEY E	2025 02.26.25	0	2025	6	INV P	39.70	031425	307767 PEARL RIVER VALLEY-
003873	PEARL RIVER VALLEY E	2025 02.28.25B	0	2025	6	INV P	7,736.08	031425	307767 PEARL RIVER VALLEY-
003873	PEARL RIVER VALLEY E	2025-02.28	0	2025	6	INV P	39.00	031425	307767 PEARL RIVER VALLEY
							7,814.78		
ACCOUNT TOTAL							8,512.38		
009673	638200	MINOR EQUIPMENT R&M							
003987	PUCKETT RENTS	1093109-0001	2501740	2025	6	INV P	366.49	031425	307777 FORKLIFT REPAIRS --
ACCOUNT TOTAL							366.49		
009673	638300	GENERATOR R&M							
002672	DOLEAC ELECTRIC CO I	WP2X125	2501082	2025	6	INV P	5,670.00	031425	307667 MB2023-140, GENERAT

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR				INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
					ACCOUNT TOTAL			5,670.00			
009673	643000				UNIFORM RENT						
002471	CINTAS CORPORATION # 4222626311	0	2025	6	INV	P	261.05	031425	307642	SC#8200044758: UNIF	
002471	CINTAS CORPORATION # 4223443845	0	2025	6	INV	P	261.05	031425	307642	SC#8200044758: UNIF	
							522.10				
					ACCOUNT TOTAL			522.10			
009673	684500				REGISTRATION FEE/TUITION						
003694	MS MUNICIPAL LEAGUE 38858	0	2025	6	INV	P	350.00	031425	307740	MS MUNICIPAL LEAGUE	
					ACCOUNT TOTAL			350.00			
009673	687000				CUSTODIAL SERVICE						
047011	JANI-KING OF SOUTH E SEM03250217	2500534	2025	5	INV	P	446.00	031425	307702	TWO-QUOTE JANITORIA	
					ACCOUNT TOTAL			446.00			
					ORG 009673 TOTAL			28,945.98			
009676	525000	W&S O&M-SEWER DIVISION									
009676	525000	GAS AND OIL									
001002	CITY OF HATTIESBURG 2/28/25 FUND 9	0	2025	6	INV	P	236.93	031425	307647	FUEL USAGE 2/1/25 -	
					ACCOUNT TOTAL			236.93			
009676	525700				DIESEL FUEL						
001002	CITY OF HATTIESBURG 2/28/25 FUND 9	0	2025	6	INV	P	356.76	031425	307647	FUEL USAGE 2/1/25 -	
					ACCOUNT TOTAL			356.76			
009676	541500				SAND,CLAY,GRVL,FILL DIRT						
004586	WARREN PAVING INC 103899	2502231	2025	6	INV	P	1,336.97	031425	307821	MB2024-597: CRUSHED	
					ACCOUNT TOTAL			1,336.97			
009676	546000				MINOR EQUIPMENT						
002795	FASTENAL COMPANY MSHAT244424	2501997	2025	5	INV	P	360.00	031425	307678	9"8MIL BLK NITRILE	
003987	PUCKETT RENTS 1101344-0001	2501955	2025	6	INV	P	3,463.76	031425	307777	MINOR EQUIPMENT --	
					ACCOUNT TOTAL			3,823.76			
009676	570000				MTR VEHICLE REP. PTS/SPL						
002646	DELK'S TIRE SALES AN 47855	2502100	2025	5	INV	P	256.00	031425	307663	TWO TIRES FOR UNIT	
					ACCOUNT TOTAL			256.00			
009676	606000				TELEPHONE AND TELEGRAPH						

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT		CHECK	DESCRIPTION		
002160	AT&T MOBILITY	287290252011X030525	0	2025	6	INV	P	1,403.48	031425	307617	MB2016-287/WIRELESS	
ACCOUNT TOTAL								1,403.48				
009676	630500	ELECTRICITY										
003700	MS POWER COMPANY	E2025- 5-MAR	0	2025	6	INV	P	160.00	031425	307750	MISSISSIPPI POWER-1	
ACCOUNT TOTAL								160.00				
009676	636000	STREETS & STRUCTURES R&M										
004058	RJM MCQUEEN CONTRACT	3138	0	2025	5	INV	P	11,866.75	031425	307782	MB2024-551: SEWER R	
004058	RJM MCQUEEN CONTRACT	3139	0	2025	5	INV	P	8,534.50	031425	307782	MB2024-551: SEWER R	
004058	RJM MCQUEEN CONTRACT	3141	0	2025	5	INV	P	13,170.06	031425	307782	MB2024-551: SEWER R	
004058	RJM MCQUEEN CONTRACT	3143	0	2025	5	INV	P	625.00	031425	307782	MB2024-551: SEWER R	
								34,196.31				
ACCOUNT TOTAL								34,196.31				
009676	638400	MOTOR VEHICLE EQ. R&M										
002646	DELK'S TIRE SALES AN	47833	0	2025	5	INV	P	294.00	031425	307663	TIRES FOR UNIT # 11	
002646	DELK'S TIRE SALES AN	47846	0	2025	5	INV	P	15.00	031425	307663	TIRE REPAIR FOR UNI	
								309.00				
003861	PATTERSON AUTO ELECT	82670	2502099	2025	5	INV	P	812.50	031425	307765	REPAIRS TO UNIT # 1	
003861	PATTERSON AUTO ELECT	82682	2502210	2025	6	INV	P	562.50	031425	307765	REPAIRS TO UNIT # 2	
003861	PATTERSON AUTO ELECT	82740	2502209	2025	6	INV	P	687.50	031425	307765	REPAIRS TO UNIT # 1	
								2,062.50				
ACCOUNT TOTAL								2,371.50				
009676	638600	CONSTRUCTION EQUIP R&M										
002083	ALLBRITTON CHAIN SAW	19580	2502291	2025	6	INV	P	232.78	031425	307605	MOWER REPAIRS FOR S	
ACCOUNT TOTAL								232.78				
ORG 009676 TOTAL								44,374.49				
009677	W&S O&M-SEWER LAGOON DIV. CHEMICALS											
009677	513000											
002094	ALLIED UNIVERSAL COR	I3000697	2502230	2025	6	INV	P	11,308.68	031425	307606	MB2024-551: CHLORIN	
002094	ALLIED UNIVERSAL COR	I3000698	2502230	2025	6	INV	P	3,263.10	031425	307606	MB2024-551: CHLORIN	
002094	ALLIED UNIVERSAL COR	I3000699	2502230	2025	6	INV	P	4,894.65	031425	307606	MB2024-551: CHLORIN	
								19,466.43				
ACCOUNT TOTAL								19,466.43				
009677	525700	DIESEL FUEL										
001002	CITY OF HATTIESBURG	2/28/25 FUND 9	0	2025	6	INV	P	65.00	031425	307647	FUEL USAGE 2/1/25 -	

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR		TYP	S	WARRANT	CHECK	DESCRIPTION
						ACCOUNT TOTAL		65.00					
009677	602500						LEGAL						
004599	WATKINS & EAGER			439006		0	2025	5	INV	P	3,451.50	031425	307826 RE:ENVIRONMENTAL MA
						ACCOUNT TOTAL		3,451.50					
009677	630500						ELECTRICITY						
003873	PEARL	RIVER	VALLEY	E	2025 02.20.25	0	2025	5	INV	P	50.00	031425	307767 PEARL RIVER VALLEY-
003873	PEARL	RIVER	VALLEY	E	2025 02.26.25	0	2025	6	INV	P	36.31	031425	307767 PEARL RIVER VALLEY-
003873	PEARL	RIVER	VALLEY	E	2025 02.28.25B	0	2025	6	INV	P	3,131.84	031425	307767 PEARL RIVER VALLEY-
003873	PEARL	RIVER	VALLEY	E	2025-02.24	0	2025	6	INV	P	1,087.01	031425	307767 PEARL RIVER VALLEY
003873	PEARL	RIVER	VALLEY	E	2025-02.27	0	2025	6	INV	P	51.12	031425	307767 PEARL RIVER VALLEY
003873	PEARL	RIVER	VALLEY	E	2025-02.28	0	2025	6	INV	P	809.74	031425	307767 PEARL RIVER VALLEY
								5,166.02					
						ACCOUNT TOTAL		5,166.02					
009677	638000						FIXED EQUIPMENT R&M						
003348	L & A CONTRACTING CO			483-290		0	2025	6	INV	P	39,265.23	031425	307714 MB2024-1088:LAGOONS
						ACCOUNT TOTAL		39,265.23					
009677	639400						DISINFECT./EXTERMINATION						
003040	HAVARD	PEST	CONTROL		2409712	0	2025	6	INV	P	40.00	031425	307690 HAVARD PEST CONTROL
003040	HAVARD	PEST	CONTROL		2409713	0	2025	6	INV	P	40.00	031425	307690 HAVARD PEST CONTROL
								80.00					
						ACCOUNT TOTAL		80.00					
						ORG 009677	TOTAL		67,494.18				
FUND 009 WATER & SEWER OPERATION/MAINT.						TOTAL:		171,241.49					

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6									
ACCOUNT/VENDOR	INVOICE	PO	YEAR/PR	TYP S		WARRANT	CHECK	DESCRIPTION	
011001								WATER & SEWER REVENUES	
011001 360002								TAXABLE WATER SALES	
051401 EWC NOLA LLC	62251	0	2025 6	INV P	3,759.77	031425	307677	OVERPAYMENT	
				ACCOUNT TOTAL	3,759.77				
				ORG 011001 TOTAL	3,759.77				
FUND 011 WATER & SEWER FUND					TOTAL:	3,759.77			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR	TYP S	WARRANT		CHECK	DESCRIPTION
019100				POL.FORFEITURES-POLICE DIV.								
019100 604900				OTHER PROFESSIONAL SERV.								
004446 TOSHIBA BUSINESS SOL 5748146				0	2025 6	INV P	129.12	031425	307811	FILE#2022-514 COPIE		
ACCOUNT TOTAL							129.12					
ORG 019100 TOTAL							129.12					
FUND 019 POLICE FORFEITURES FUND							TOTAL:	129.12				

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6												
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION			
039551			AIRPORT IMPR.-AIRPORT DIV									
039551	729530		HANGAR TAXIWAY									
003764	NEEL-SCHAFFER INC	1104222	0	2025	6	INV P	11,136.10	031425	307758	MB	2022-492	AIRPORT
ACCOUNT TOTAL							11,136.10					
ORG 039551 TOTAL							11,136.10					
FUND 039 AIRPORT IMPROVEMENT FUND							TOTAL:	11,136.10				

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION		
072201			MUN.ROAD&BRIDGE-STREET DIV								
072201 601502				ENGINEERING-MIDTOWN							
003764	NEEL-SCHAFFER INC	1104215	0	2025	6	INV P	5,430.00	031425	307758	MB	2021-359 MIDTOWN
ACCOUNT TOTAL							5,430.00				
072201 602500			LEGAL								
003228	JACKSON, TULLOS & RO	14387	0	2025	6	INV P	12,100.00	031425	307701	MB	2023-83 EDWARDS
ACCOUNT TOTAL							12,100.00				
072201 636000			STREETS & STRUCTURES R&M								
047056	WARREN PAVING INC	2402654.1	2402654	2025	6	INV P	49,580.50	031425	307822	STRIPE	STAMPED CROS
ACCOUNT TOTAL							49,580.50				
ORG 072201 TOTAL							67,110.50				
FUND 072 MUNICIPAL ROAD & BRIDGE				TOTAL:		67,110.50					

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR			INVOICE		PO	YEAR/PR		TYP	S	WARRANT		CHECK	DESCRIPTION
073570 MASS TRANSIT-TRANSPORTATION													
073570 525000 GAS AND OIL													
001002	CITY OF HATTIESBURG		2/28/25	FUND73	0	2025	6	INV	P	6,989.76	031425	307646	FUEL USAGE 2/1/25 -
004583	WARING	OIL CO	377820		2500833	2025	5	INV	P	1,414.88	031425	307820	SYNBLEND 5W30 OIL F
004583	WARING	OIL CO	404303		2502172	2025	6	INV	P	530.00	031425	307820	CHEVRON OIL FOR BUS
004583	WARING	OIL CO	404321		2502173	2025	6	INV	P	2,025.00	031425	307820	CHEVRON OIL FOR BUS
										3,969.88			
ACCOUNT TOTAL										10,959.64			
073570 525700 DIESEL FUEL													
001002	CITY OF HATTIESBURG		2/28/25	FUND73	0	2025	6	INV	P	4,368.19	031425	307646	FUEL USAGE 2/1/25 -
ACCOUNT TOTAL										4,368.19			
073570 559000 OTHER OPERATING MATL/SPLY													
002527	COMMERCIAL STATIONER		486075-0		2501948	2025	6	INV	P	137.00	031425	307655	BUS PASSES
ACCOUNT TOTAL										137.00			
073570 571001 REPAIR PARTS - FIXED ROUTE													
003746	NAPA AUTO PARTS		001710		2502102	2025	5	INV	P	952.39	031425	307756	DIESEL FLUID FOR BU
003746	NAPA AUTO PARTS		002020		2502233	2025	6	INV	P	374.80	031425	307756	TRUCK PARTS UNIT #
003746	NAPA AUTO PARTS		002117		2502281	2025	6	INV	P	110.05	031425	307756	BATTERY ACCESSORIES
										1,437.24			
004597	WATERS INTERNATIONAL		08P887146		2502182	2025	6	INV	P	274.85	031425	307825	LINK STEERING DRAG
ACCOUNT TOTAL										1,712.09			
073570 602000 CONSULTANT SERV/SURVEYS													
047011	JANI-KING OF SOUTH E		SEM01250248		2501040	2025	5	INV	P	150.00	031425	307702	SHAMPOO CARPET IN H
047011	JANI-KING OF SOUTH E		SEM01250250		2501057	2025	5	INV	P	687.00	031425	307702	DEEP CLEAN & SCRUB
047011	JANI-KING OF SOUTH E		SEM01250251		2501048	2025	5	INV	P	313.00	031425	307702	STRIP ALL HCT FLOOR
047011	JANI-KING OF SOUTH E		SEM01250252		2501050	2025	5	INV	P	303.00	031425	307702	DEEP CLEAN & STEAM
										1,453.00			
049426	ENMON ENTERPRISES		SEM01250249		2501074	2025	5	INV	P	150.00	031425	307675	CLEAN ALL CERAMICS
ACCOUNT TOTAL										1,603.00			
073570 606000 TELEPHONE AND TELEGRAPH													
002160	AT&T MOBILITY		287273578351X030825	0		2025	6	INV	P	434.88	031425	307617	MB#2016-287/WIRELES
002160	AT&T MOBILITY		287290252011X030525	0		2025	6	INV	P	374.11	031425	307617	MB2016-287/WIRELESS
										808.99			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6											
ACCOUNT/VENDOR		INVOICE		PO	YEAR/PR	TYP	S	WARRANT		CHECK	DESCRIPTION
ACCOUNT TOTAL								808.99			
073570	639800	TOW IN CHARGES									
003253	JOHNNY'S WRECKER SER 47727	0	2025	6	INV	P	450.00	031425	307705	TOWING UNIT #16235	
ACCOUNT TOTAL								450.00			
073570	643000	UNIFORM RENT									
002471	CINTAS CORPORATION # 4214682812	0	2025	6	INV	P	194.26	031425	307642	UNIFORM RENTALS / S	
002471	CINTAS CORPORATION # 4215447253	0	2025	6	INV	P	387.99	031425	307642	UNIFORM RENTALS /	
002471	CINTAS CORPORATION # 4216140522	0	2025	6	INV	P	211.83	031425	307642	UNIFORM RENTALS /	
002471	CINTAS CORPORATION # 4216952828	0	2025	6	INV	P	201.07	031425	307642	UNIFORM RENTALS /	
002471	CINTAS CORPORATION # 4217583222	0	2025	5	INV	P	196.76	031425	307642	SC#8200044758 UNIFO	
002471	CINTAS CORPORATION # 4218336110	0	2025	5	INV	P	192.45	031425	307642	SC#8200044758 UNIFO	
002471	CINTAS CORPORATION # 4219053899	0	2025	5	INV	P	192.45	031425	307642	UNIFORM / SC 820004	
002471	CINTAS CORPORATION # 4219795090	0	2025	5	INV	P	290.22	031425	307642	UNIFORMS / SC 82000	
002471	CINTAS CORPORATION # 4220517402	0	2025	6	INV	P	192.45	031425	307642	UNIFORM RENTALS /	
002471	CINTAS CORPORATION # 4221245873	0	2025	6	INV	P	212.36	031425	307642	UNIFORM RENTALS / S	
002471	CINTAS CORPORATION # 4221986149	0	2025	6	INV	P	194.64	031425	307642	UNIFORM RENTALS /	
002471	CINTAS CORPORATION # 4222626214	0	2025	6	INV	P	210.93	031425	307642	UNIFORM RENTALS /	
002471	CINTAS CORPORATION # 4223443982	0	2025	6	INV	P	201.45	031425	307642	UNIFORM RENTALS /S	
							2,878.86				
ACCOUNT TOTAL								2,878.86			
073570	687000	CUSTODIAL SERVICE									
050404	PRECIOUS TATE JASPER 0003A	2501087	2025	6	INV	P	325.00	031425	307775	TWO-QUOTE JANITORIA	
ACCOUNT TOTAL								325.00			
073570	733600	SURVEILANCE/SECURITY EQUIPMENT									
003472	M B I	HCT030225	0	2025	6	INV	P	359.40	031425	307722	ANNUAL MONITORING O
ACCOUNT TOTAL								359.40			
ORG 073570 TOTAL							23,602.17				
FUND 073 MASS TRANSIT FUND							TOTAL: 23,602.17				

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6		ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP S	WARRANT	CHECK	DESCRIPTION
075695										
075695	601500									W&S CONSTR.-CAPITAL PROJECTS
										ENGINEERING
004197	SHOWS	DEARMAN & WAIT	24946	0	2025	6	INV P	8,200.00	031425	307789 MB 2018-288-289 INF
004197	SHOWS	DEARMAN & WAIT	24948	0	2025	6	INV P	9,515.00	031425	307789 MB 2022-286 UNIFIED
004197	SHOWS	DEARMAN & WAIT	24950	0	2025	6	INV P	1,230.00	031425	307789 MB 2012-1/34 GENERA
004197	SHOWS	DEARMAN & WAIT	24954	0	2025	6	INV P	18,995.00	031425	307789 MB 2021-399 W 7TH I
004197	SHOWS	DEARMAN & WAIT	24957	0	2025	6	INV P	3,315.00	031425	307789 MB 2021-337-338 ARC
004197	SHOWS	DEARMAN & WAIT	24958	0	2025	6	INV P	6,245.00	031425	307789 MB 2022-45 W 7TH, 2
004197	SHOWS	DEARMAN & WAIT	24959	0	2025	6	INV P	23,369.67	031425	307789 MB 2022-44 MS HALL
004197	SHOWS	DEARMAN & WAIT	24967	0	2025	6	INV P	15,255.00	031425	307789 MB 2012-1/34 COMSWI
								86,124.67		
								ACCOUNT TOTAL		86,124.67
075695	601503									ENGINEERING-MCWI
004197	SHOWS	DEARMAN & WAIT	24947	0	2025	6	INV P	7,912.50	031425	307789 MB 2020-137-138 MLK
004197	SHOWS	DEARMAN & WAIT	24955	0	2025	6	INV P	5,145.00	031425	307789 MB 2021-306 EDWARDS
								13,057.50		
								ACCOUNT TOTAL		13,057.50
075695	724502									PIPELINE ROAD
048265	BNR INVESTMENTS LLC	338		2501661	2025	6	INV P	28,000.00	031425	307624 2 QUOTE - PIPELINE
								ACCOUNT TOTAL		28,000.00
								ORG 075695 TOTAL		127,182.17
								FUND 075 WATER&SEWER CONSTRUCTION FUND		TOTAL: 127,182.17

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6									
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION
077650				COMMUNITY CTR-ADMIN/GENERAL					
077650	510000			CLEANING/JANITORIAL SPLY					
048909	BRADY COMPANIES, LLC	9813349	2502163	2025	6	INV P	465.64	031425	307631 JANITORIAL SUPPLIES
				ACCOUNT TOTAL			465.64		
077650	525000			GAS AND OIL					
001002	CITY OF HATTIESBURG	2/28/25 FUND 77	0	2025	6	INV P	182.57	031425	307648 FUEL USAGE 2/1/25 -
				ACCOUNT TOTAL			182.57		
077650	559000			OTHER OPERATING MATL/SPLY					
002714	ECONOMY SUPPLY CO	139754	2502157	2025	5	INV P	46.95	031425	307668 PASSAGE LOCK FOR SI
				ACCOUNT TOTAL			46.95		
077650	570000			MTR VEHICLE REP. PTS/SPL					
002160	AT&T MOBILITY	287308925627X030525	0	2025	6	INV P	94.40	031425	307617 MB2016-287/WIRELESS
				ACCOUNT TOTAL			94.40		
077650	604900			OTHER PROFESSIONAL SERV.					
004205	SIGNS FIRST	INV-90808	2500869	2025	6	INV P	3,616.50	031425	307791 SIGNAGE-PLAQUE REBE
				ACCOUNT TOTAL			3,616.50		
077650	606000			TELEPHONE AND TELEGRAPH					
002160	AT&T MOBILITY	287273578351X030825	0	2025	6	INV P	56.84	031425	307617 MB#2016-287/WIRELES
				ACCOUNT TOTAL			56.84		
077650	630000			GAS					
004321	SPIRE	G2025- 4-MAR	0	2025	6	INV P	1,308.82	031425	307803 SPIRE- VARIOUS DEPT
				ACCOUNT TOTAL			1,308.82		
077650	635000			BUILDING R&M					
002716	EDDIE PEARSON ROOFIN	2866	2501899	2025	6	INV P	4,110.00	031425	307669 ROOF REPAIR ON LOWE
				ACCOUNT TOTAL			4,110.00		
077650	638000			FIXED EQUIPMENT R&M					
003681	MS FIRE & SAFETY OF	86448	0	2025	5	INV P	89.00	031425	307739 ANNUAL SERVICE OF F
003681	MS FIRE & SAFETY OF	86449	0	2025	5	INV P	129.00	031425	307739 ANNUAL SERVICE OF F
							218.00		
				ACCOUNT TOTAL			218.00		
077650	643000			UNIFORM RENT					
002471	CINTAS CORPORATION #	5237160301	0	2025	6	INV P	440.00	031425	307642 EMPTY 5 SHELF FA C

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6									
ACCOUNT/VENDOR	INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION	
			ACCOUNT	TOTAL				440.00	
			ORG 077650	TOTAL				10,539.72	
FUND 077	COMMUNITY CENTERS'	FUND		TOTAL:				10,539.72	

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6																
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR		TYP	S	WARRANT		CHECK	DESCRIPTION		
082285 CDBG-ENTITLEMENTS																
082285	525000						GAS AND OIL									
001002	CITY OF HATTIESBURG	2/28/25	FUND 82		0		2025	6	INV	P	53.69	031425	307649	FUEL USAGE 2/1/25 -		
ACCOUNT TOTAL											53.69					
082285 546000																
004017	REGIONS CARDHOLDER S	4341-02/28/25			0		2025	6	INV	P	205.44	031425	307778	4341-02/28/25 REGIO		
ACCOUNT TOTAL											205.44					
082285 606000																
002160	AT&T MOBILITY	287290252011X030525			0		2025	6	INV	P	50.03	031425	307617	MB2016-287/WIRELESS		
ACCOUNT TOTAL											50.03					
ORG 082285 TOTAL											309.16					
FUND 082 COMMUNITY DEVELOP. BLOCK GRANT											TOTAL:		309.16			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR		TYP	S	WARRANT	CHECK	DESCRIPTION
086300				SPEC SALES TAX/RECREATION MAIN									
086300 729506				HBURG AMERICAN ARTS CENTER									
002100 AMERICAN AIR SPECIAL 127070				2501912	2025 6	INV	P	578.00	031425		307608	CAMERA SEWER LINES	
				ACCOUNT TOTAL				578.00					
086300 729508				MIDTOWN PARK									
050927 NICHOLSON PROFESSION MIDTOWN GREEN #13R				0	2025 6	INV	P	130,490.68	031425		307760	MB 2023-90 MIDTOWN	
				ACCOUNT TOTAL				130,490.68					
				ORG 086300		TOTAL		131,068.68					
FUND 086 SPEC SALES TAX-P&R/UNIV IMPROV				TOTAL:		131,068.68							

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6										
ACCOUNT/VENDOR		INVOICE	PO	YEAR/PR	TYP	S	WARRANT	CHECK	DESCRIPTION	
088603			PUBLIC SAFETY/REC CONSTRUCTION							
088603	729501			HALL AVENUE OVERPASS						
047333	CARTER, QUIENTA & BE	CARTER RELOC. FINAL	0	2025	6	INV P	10,000.00	031425	307639	MB 2021-104 HALL AV
ACCOUNT TOTAL							10,000.00			
088603			GORDONS CRK BANK STABILIZATION							
004197	729575			2025	6	INV P	595.00	031425	307789	MB 2012-1/34 GORDON
ACCOUNT TOTAL							595.00			
ORG 088603				TOTAL		10,595.00				
FUND 088		PUBLIC SAFETY/REC CONSTRUCTION			TOTAL:		10,595.00			

INVOICE LIST BY GL ACCOUNT

YEAR/PERIOD: 2025/5 TO 2025/6													
ACCOUNT/VENDOR				INVOICE		PO	YEAR/PR		TYP	S	WARRANT	CHECK	DESCRIPTION
098695				WATER METER		PROJECTS							
098695 724200				WATER METERS									
004197		SHOWS DEARMAN & WAIT		24945	0	2025	6	INV	P	21,655.00	031425	307789	MB 2022-436 CITY WI
051006		HUDSON CONTRACTING		PAY EST NO 6	0	2025	6	INV	P	354,621.42	031425	307696	MB 2023-14-15 CITY
ACCOUNT TOTAL										376,276.42			
ORG 098695 TOTAL										376,276.42			
FUND 098				WATER METER BONDS		TOTAL:				376,276.42			

** END OF REPORT - Generated by Sherry Jackson **

03/12/2025 15:17 | City of Hattiesburg, MS
6050sjackson | A/P CASH DISBURSEMENTS JOURNAL

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JOURNAL ENTRIES TO BE CREATED

FUND	DUE TO	DUE FR
001 General Fund		1,959,613.59
002 PARKS & RECREATION FUND		63,150.41
008 SPECIAL STREET IMPR.FUND		35,843.11
009 WATER & SEWER OPERATION/MAINT.		171,241.49
011 WATER & SEWER FUND		3,759.77
019 POLICE FORFEITURES FUND		129.12
039 AIRPORT IMPROVEMENT FUND		11,136.10
072 MUNICIPAL ROAD & BRIDGE		67,110.50
073 MASS TRANSIT FUND		23,602.17
075 WATER&SEWER CONSTRUCTION FUND		127,182.17
077 COMMUNITY CENTERS' FUND		10,539.72
082 COMMUNITY DEVELOP. BLOCK GRANT		309.16
086 SPEC SALES TAX-P&R/UNIV IMPROV		131,068.68
088 PUBLIC SAFETY/REC CONSTRUCTION		10,595.00
098 WATER METER BONDS		376,276.42
801 CLAIMS FUND	2,991,557.41	
TOTAL	2,991,557.41	2,991,557.41

** END OF REPORT - Generated by Sherry Jackson **