2026

City of Monticello / Jefferson County Local Mitigation Strategy

Jefferson County

Division of Emergency Management

June 2026

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RECORD OF CHANGES

Date	Description of Change	Location/Pages	Posted By

EXECUTIVE SUMMARY

The *Jefferson County Local Mitigation Strategy*[1] (LMS) is a plan to identify and reduce the community's long-term vulnerability to natural and technological hazards through a range of mitigation measures. The plan is organized into six sections:

1. Section 1 introduces the plan and explains the planning process.
2. Section 2 reviews the county profile
3. Section 3 details the hazard identification of the county.
4. Section 4 explains the mitigation strategy.
5. Section 5 details the mitigation action plan and reveals the itemized project list.
6. Section 6 explains the plan adoption process, implementation, and maintenance of the plan.

Within the LMS, the Working Group has developed a series of mitigation initiatives intended to protect the public by addressing those natural and other hazards that may affect various areas and constituencies of Jefferson County. This plan may also change as current projects are completed, new needs and problems are identified, and local priorities change with development, population shifts, and increases.

The Florida Division of Emergency Management requires local mitigation strategy plans be adopted by resolution by local government(s). To fulfill this requirement, the *Jefferson County Local Mitigation Strategy* 2026 Update will be adopted by resolution by both the Jefferson County Board of Commissioners and the Monticello City Commission. Adoption of the LMS allows Jefferson County and the City of Monticello to apply for hazard mitigation and disaster recovery funds from state and federal sources, as well as to provide a plan for their application.

[1] Hazard mitigation is any program, initiative, or action taken to permanently reduce or eliminate long-term risk to people and their property from the effects of hazards. Hazards can be natural, such as hurricanes and floods, or technological, such as hazardous materials incidents or a large-scale loss of power.

1 Introduction and Planning Process

1.1 History of the Jefferson County Local Mitigation Strategy

In 2009, the Florida Department of Community Affairs (DCA) provided funding to all Florida counties and municipalities to assist them in preparing a comprehensive Local Mitigation Strategy (LMS). The original goals of the LMS, which remain valid, were to help local officials identify and assess the various natural and technological disasters the county faced and to identify locally developed strategies to reduce the impact of future disasters.

Utilizing this funding, the City of Monticello and Jefferson County entered an interlocal agreement to prepare an LMS that would benefit both local governments.

All local government departments and divisions with a role in hazard mitigation, disaster response, or public safety were invited to participate. Major employers, including the schools, businesses, and churches, were also included, as well as the Chamber of Commerce, and the State of Florida's Division of Emergency Management (DEM).

Following an advertised public workshop, calendar invite email, social media and add in newspaper. The first edition of the LMS was adopted by the Jefferson County Board of County Commissioners at a regular meeting on May 17, 2016, and by the Monticello City Council at a regular meeting on June 7, 2016.

Building upon the 2009 interlocal agreement between the City of Monticello and Jefferson County, a set of bylaws for the Monticello-Jefferson County Local Mitigation Strategy Working Group were adopted and ratified by both local governments on June 7, 2016. The Working Group bylaws were approved at advertised meetings of both commissions. All meetings of the Working Group have and continue to be publicly advertised as per State of Florida statutory requirements for local government meetings.

The LMS has been updated every five years consistent with federal requirements in 2005, 2010, 2015, 2020, and with this update, 2025, with input provided by the Working Group, the Apalachee Regional Planning Council, and the Capital Section of the American Red Cross, with oversight review by Florida DEM and the Federal Emergency Management Agency (FEMA). All updates were provided to the public at advertised meetings and adopted by resolution by both the Jefferson County Board of County Commissioners and the Monticello City Council at their regular advertised public meetings. The public *and* neighboring communities are encouraged to participate in the Jefferson County Local Mitigation Strategy to gauge the plan's effectiveness and help identify local hazards to be added to the county project list. Interested parties, including local/adjacent government representatives and the local businesses and citizens, are solicited via public meeting advertisements in the county's local newspaper, The Monticello News. There were several opportunities to include the public in the LMS planning: Jefferson County website (under the county announcements link for the upcoming meetings) www.Jeffersoncountyfl.gov. All LMS Meeting Notices were advertised in The Monticello News (print and online) and will continue for the future meetings: www.ebcpublishing.com. LMS Meeting Notices were announced at the County Commissioner's meetings. A copy of the LMS plan is advertised and available at the

Emergency Management office[2]. The previous LMS plan was advertised, offering the public an opportunity to review the draft plan before FEMA approval. The same method will occur for this LMS Plan update. A legal notice will be placed offering the public an opportunity to review the draft document.

1.2 Jurisdictions

The *Jefferson County Local Mitigation Strategy* is a joint product of the City of Monticello and Jefferson County, with input provided by various non-profit organizations and other public and private stakeholders. The LMS represents a consistent, comprehensive set of goals, initiatives, programs, and capital and other projects intended to reduce risks for the citizens of both the unincorporated areas of Jefferson County and those residing in the City of Monticello. Since the initial adoption of the LMS, the Working Group has continued to meet regularly and to endorse specific projects for funding through Federal pre- and post-disaster assistance programs. As of 2025, the LMS Committee has submitted requests for approximately $1,591,640.13 million in Federal matching funds for local hazard mitigation projects since 2019.

Although the LMS is a planning document for both jurisdictions, data and analyses developed explicitly for the participating local governments are provided separately, as needed. Capital projects are also listed independently for these two governments because their budgets and implementing agencies are independent of each other. Other initiatives or policies unique to either local government are also identified where appropriate. Nevertheless, the *Monticello-Jefferson County Local Mitigation Strategy* applies to the entire county.

Table of Jurisdictions Seeking Plan Approval

Jurisdiction	Person Seeking Approval/ Title
Jefferson County, Board of County Commissioners	Ben White, Chairperson
City of Monticello	Kurt Mackiewicz, City Manager
Tri-County Electric Cooperative	Benny Bishop, District Supervisor

1.3 Purpose and Benefits of Hazard Mitigation

Purpose

Hazard mitigation is any action taken to permanently reduce or eliminate long-term risk to people and their property from the effects of hazards. Some examples of hazard mitigation include land-use planning that limits infrastructure in high-hazard areas, retrofitting existing structures to meet new building codes and standards, and acquiring existing structures in

[2] Note: A copy of the 2025 LMS plan will be available at the Jefferson County Division of Emergency Management and online from the Jefferson County planning department to give the public an opportunity to review the document "prior to the final plan approval". http://www.jeffersoncountyfl.gov/p/county-departments/planning.

high-hazard areas. Communities can minimize the effects of future hazards through a mix of planning, code enforcement, and responsible development.

A *Local Mitigation Strategy* is a community-based plan to make cities and counties safer and more resistant to natural and technological hazards. Every community is exposed to some level of risk from various hazards. Hurricanes, tornadoes, floods, hazardous-material spills, fires, and sinkholes are among the hazards many communities in Florida face. Hazards cannot always be eliminated, but exposure to these hazards and their potential effects can be reduced through proper planning. The local mitigation strategy does this by accomplishing the following:

1. Identifying hazards to which the county is vulnerable, such as hurricanes, tornadoes, floods, fires, and hazardous materials releases;
2. Determining where the community is most vulnerable to these hazards;
3. Assessing the facilities and structures that are most vulnerable to hazards;
4. Preparing a prioritized list of mitigation projects to take advantage of available funding;
5. Identifying funding sources for the mitigation projects; and
6. Making hazard awareness and education a community goal.

Benefits

A strategy or plan to mitigate hazards benefits the community by not only reducing risks, but also by conserving valuable economic, natural, and other resources. Businesses in high-hazard areas lose valuable revenue when storms damage or isolate them. The American Red Cross estimates that less than 50 percent of businesses heavily damaged by a disaster will still be in business three to five years after the disaster. Residents who build in high-hazard areas are subject to physical evacuations, damage to their homes and personal property, lower home values, and higher insurance premiums.

Because disasters cost local governments money and time, a plan to address hazards can help stretch and save scarce resources and the time needed to rebuild critical facilities and infrastructure. Community infrastructure, such as roads, drainage systems, water systems, and wastewater treatment plants built in high-hazard areas, is subject to frequent damage and costly repairs, and federal post- disaster assistance does not cover all the costs of recovery. A local government is responsible for up to

12.5 percent of local public recovery costs in a federally declared disaster. In smaller events, not federally declared, the local government is responsible for 100 percent of the local recovery costs. These costs can put a significant strain on the budget of a small local government without considerable revenue sources. Keeping critical facilities out of high-hazard areas, or armoring them where necessary, can reduce the costs associated with damage to such infrastructure from weather and other hazardous events.

Disruption of the community's infrastructure can also hamper the local economy, impacting the tax base and making recovery more difficult. But the public costs of a disaster are not related to infrastructure alone. Critical facilities such as schools, and major government buildings located in high hazard areas are often subject to damaging conditions just when

they are needed the most. And of course, the cost to community health, safety and welfare can never be accurately calculated.

The *Monticello-Jefferson County Local Mitigation Strategy* is intended to enable county and municipal officials, the business community, and local citizens to help reduce risks and costs by including hazard mitigation as part of everyday planning, rather than limiting it to the measures taken immediately before or after a disaster strikes.

1.4 LMS Working Group Members

History

The *Monticello-Jefferson County Local Mitigation Strategy* was written by the LMS Committee, a working group created in 2009 through an interlocal agreement between the City of Monticello and Jefferson County to undertake long-range mitigation planning and to implement the LMS. Comprised of selected City and County personnel and representatives from various private, public, and non-profit sector interests, the Committee met numerous times over the next year to identify and evaluate the hazards facing Monticello-Jefferson County. (For a complete list of meeting dates and minutes, please refer to Appendix C.)

If members are unable to attend any LMS public or other meetings, they can call the Emergency Management staff with questions, concerns or comments via an e-mail link on the webpage or by telephone through the number listed. Meeting are attended by both in-person and via Zoom. Newspaper, email, social media, and telephone are used to notify members.

The Committee was created in accordance with the Code of Federal Regulations, Title 44 CFR Part 201, and Section 252.46 Florida Statutes, and it is governed by a set of bylaws adopted by the City of Monticello and Jefferson County. The Working Group is collectively referred to in this document as the LMS Committee. The representative agencies and organizations are listed below.

The interlocal agreement between both participating local governments establishing the Working group designates the LMS Committee. The leadership of the Working group includes several department-level directors to help ensure that hazard mitigation issues and priorities can be addressed more directly at the higher levels of administration within both the City and the County.

1.4.1 Existing Committee Members and Structure

The following table lists all current member organizations of the LMS Committee. The primary roles of Working Group members are also defined. This list has been included in all editions of the LMS since its inception in 2009.

Table 1: Working group Members (in order of appearance in bylaws).

Name/Title/Agency	Sector or Representation	Role

Dustin McCoy Jefferson County Division of Emergency Management	Code Enforcement	Chairperson
Jackie Pons Jefferson County School	Superintendent, Principal	Co-Chairperson
David Wheeler Jefferson County Planning Department	Subject Matter Expert	Coordinator
Kristy Anderson, Director Jefferson County Division of Emergency Management	Emergency Management	Voting Member
Alfred "Mac" McNeill, Sheriff Jefferson County Sheriff's Office	Public Safety	Voting Member
Benny Bishop, District Manager Tri-County Electric Cooperative	Electric Infrastructure	Coordinator
Robbie Slack, Director Jefferson County Department of Public Works	Solid Waste Management, Animal Control	Voting Member
Derrick Burrus, Chief Jefferson County Fire/EMS Department	Fire; Emergency Rescue; HazMat Response	Voting Member
Cecil "Trey" Hightower Jefferson County Clerk's Office	Business, Legal, Policy, Procedures, and Financial	Voting Member
Jefferey Lee, Road Superintendent Jefferson County Road Department	Public Roads	Voting Member
VACANT, County Manager Jefferson County Planning / Building Department	Mitigation Planning; Comprehensive Planning	Voting Member
Angela Gray, Property Appraiser Jefferson County Property Appraiser's Office	Subject Matter Expert	Voting Member
Raymond Clark City of Monticello Department of Underground Utilities and Public Infrastructure	Drainage, Flood Control	Voting Member
Kurt Mackiewicz, City Manager City of Monticello	Jurisdictional Liaison	Voting Member
Fred Mosley Chief City of Monticello Police Department	Public Safety	Voting Member
Diana Bullock Council of Neighborhood Associations	Homeowner Community Liaison	Voting Member
Katrina Richardson Jefferson County Area Chamber of Commerce	Business Community Liaison	Voting Member
Chelsey McCoy Florida Department of Health in Jefferson County	Agency Liaison	Voting Member
Mazy Glenn Jefferson County Senior Center	Community Liaison	Voting Member
Anthony Carpanini Apalachee Regional Planning Council	Regional Planning	Non-Voting Member
Mitch Stiles, Forest Area Supervisor Florida Forest Service	Agency Liaison	Non-Voting Member
Camille Lewis Florida Agricultural and Mechanical University	University Liaison	Non-Voting Member
Melissa Walgamott Capital Area Section, American Red Cross	Public Safety; Emergency Response	Non-Voting Member
Justin Lazarra Florida Division of Emergency Management	Agency Liaison	Non-Voting Member

Under the LMS Committee bylaws, the LMS coordinator is a designated staff member of the Monticello-Jefferson County Planning Department. This functionally consolidated department reports to both the City and County Commissions. The LMS coordinator provides staff support for all working group meetings and communications. The LMS coordinator serves as a clearinghouse for local government activities and is responsible for placing most LMS-related actions on the agenda of the appropriate commission. The LMS coordinator is also the primary point of contact with the Florida Division of Emergency Management regarding LMS planning and hazard mitigation grant funding opportunities.

The jurisdiction of this LMS is Jefferson County and the City of Monticello. Stakeholders represented on the LMS Committee and Working Group include all local government departments with emergency response, hazard mitigation, and development responsibilities, as well as other departments providing significant services in these areas. Additional stakeholders include local learning and the local Council of Neighborhood Associations. This list of stakeholders may be widened as deemed necessary by the LMS Committee as they see fit in accordance with the Committee's bylaws.

1.5 Current LMS Update and Adoption Process

The Six Sections of the LMS are discussed below.

1.5.1 Section One – Introduction and The Planning Process

This Section describes the planning process through which the LMS has been updated. Section One also describes the current composition Working Group. This section also details how the public is involved in the local hazard mitigation planning process, and the LMS update process.

1.5.2 Section Two – County Profile

This section reviews the topographic, demographic and economic profile of the County and forms the basis of need for a LMS for the county. This section expresses this information for both the county and City of Monticello jurisdictions.

1.5.3 Section Three – Hazard Identification, Vulnerability Assessment, and Risk Assessment

Although the core purpose of the LMS is to address community vulnerabilities and responses to natural hazards, the updated LMS recognizes selected technological and societal hazards. This Section has been revised to evaluate and update all identified hazards with new data when available, including their general description and location, historical occurrences, estimated impacts, probability, extent, vulnerability, and risk. Risk and vulnerability analyses generated by new Hazus modeling runs were incorporated into the Vulnerability Analysis sections for selected natural hazards for which such data were available. (Hazus identifies the population and structures at risk for hazards chosen using the State of Florida Department of Revenue data to estimate potential dollar losses of vulnerable structures.) Hazus modeling runs were conducted with Hazus-MH 7.0 for the 2025 update of the Monticello-Jefferson County Post-Disaster Redevelopment Plan.

Hazards evaluated by the Working Group resulted in the following changes:

1. Hurricanes and Tropical Storms, Drought, Flooding, Wildfires, Sinkholes, and Diseases and Pandemics remain as stand-alone hazards. Storm Surges were incorporated into Hurricanes and Tropical Storms because this hazard is directly associated with these events, and exotic pest infestations were renamed Invasive Plants and Animals for clarity.
2. Hazard profiles for Thunderstorms, Tornadoes, and Lightning were incorporated into one section called "Severe Storms." These phenomena are usually associated with thunderstorm events, which can occur outside of a hurricane or tropical storm.
3. A new natural hazard was added: Extreme Temperatures. This hazard reflects anticipated changes in climate over time.
4. A new Technological and Societal Hazards category labeled Public Infrastructure Failures was added. Dam Failure was moved to this new category, which also includes Telecommunications, Cybersecurity, and Electricity, Water, and Sewer. The intent of this combination is to consider the importance of these services to the functioning of a modern city and its surrounding urban area.
5. The hazard profile for Aviation Incidents was combined in a new Technological and Societal Hazard category labeled "Transportation Incidents." This incorporates all known hazards associated with the mass transportation of people and/or materials.
6. Terrorism remains as an individual Technological and Societal Hazard.

The updated LMS incorporates new Hazus modeling runs, including parcels, values, and population estimates. Additional projects intended to mitigate stormwater impacts and other hazards, as well as hazard mitigation initiatives, were reviewed and updated in the LMS within the hazard profiles in Section Three and the list of mitigation initiatives in Attachment 6.4 Local Mitigation Strategy Project List. These developments over the last decade include the Monticello RD Wastewater Treatment Plant.

Per direction from the Jefferson County Board of County Commissioners, this edition of the LMS has been updated with information on the local homeless population and their vulnerability to specific hazards. These hazards include Hurricanes and Tropical Storms, Severe Storms, Extreme Temperatures, and Diseases, Epidemics, and Pandemics. This mitigation project was completed in the 4th quarter of 2025.

1.5.4 Section Four – Mitigation Strategy

The LMS Working Group incorporated changes in local government and other stakeholder priorities since the last plan update into the evaluation of the goals and objectives and mitigation initiatives. Initiatives are specific programs and/or projects intended to address

hazard vulnerabilities through physical or programmatic mitigation. Any changes in local priorities were incorporated as appropriate into the goals and objectives and hazard mitigation initiatives. As initiatives were re-evaluated and re-prioritized, the estimated costs of mitigation initiatives were included in a new, prioritized list of Hazard Mitigation Initiatives for the 2025 LMS Update.

Specific procedures and plans for addressing local vulnerability to these societal and technological hazards are developed, maintained, and updated by other local agencies and departments. For example, the various City of Monticello departments (i.e., electric, gas, water, sewer) maintain plans and procedures for dealing with power losses and other utility interruptions during and following hazardous events. The Jefferson County Comprehensive Emergency Management Plan (CEMP) addresses the first three months following a hazardous event and also explicitly details mitigation actions and local plans for addressing local vulnerability to these hazards.

1.5.5 Section Five – Plan Maintenance

Section Five describes the process intended to monitor, evaluate, and update the plan over the next five-year period. The Plan Maintenance section also explains how the public has been and remains actively involved in local hazard mitigation planning.

The LMS was recently updated by the Jefferson County Division of Emergency Management, with input from local government agencies and departments, state and regional agencies, and the public. The update followed a review by the LMS Working Group of their bylaws, the current list of Working Group members, and the list of mitigation initiatives in the LMS. The specific changes to the LMS include:

- Added a description of Hurricane Idalia and Helene and its effects on Jefferson County and the City of Monticello
- Revised the list of hazards, risks, and vulnerabilities, including their general description, location, history, vulnerability, and risk
- Updated Hazus results for hurricanes and flooding, including adding a model run for a Category 5 hurricane
- Revised hazard mitigation goals and objectives
- Reviewed the list of mitigation initiatives; and
- Updated the Public Participation section.

Based on directions from the Jefferson County Board of County Commissioners to staff through the Hurricane Michael After Action Report, the LMS has been updated with information on their vulnerability to certain hazards. These hazards include Hurricanes and Tropical Storms, Severe Storms, and Extreme Temperatures.

The updated 2021 LMS was submitted to the Florida Division of Emergency Management in late 2020 for review. This 2021 Jefferson County Local Mitigation Strategy was adopted by resolution by the Jefferson County Board of Commissioners on May 20, 2021, and by the Monticello City Council on May 27, 2021. The plan will expire June 1, 2026. A press release

was distributed by both the City and the County as part of the local adoption process. The LMS is available to the public on the Jefferson County Division of Emergency Management's website at https://www.jeffersoncountyfl.gov/p/county-departments/emergency-management

This 2025 revision will follow the same process, and the dates will be updated accordingly in the next LMS revision.

1.6 Incorporation of Supporting Information and Documents

The following section describes information sources consulted by LMS Committee staff to ensure the most current and best available data was included in the 2020 LMS update, and to help the LMS Working Group new local mitigation needs.

1.6.1 2026 Jefferson County Local Mitigation Strategy Update

The information from the 2021 LMS update served as the primary data source for the 2026 LMS update and provided the basic structure and format for it.

1.6.2 Jefferson County Comprehensive Plan

The Monticello-Jefferson County Comprehensive Plan is the planning document that guides land development, infrastructure, environmental protection, and other aspects of local governance in both the City of Monticello and Jefferson County. Comprehensive Plan policies detail future land use in City of Monticello and Jefferson County, and other growth management policies address local mitigation. The Comprehensive Plan is updated at least once a year.

1.6.3 Jefferson County Comprehensive Emergency Management Plan

The Comprehensive Emergency Management Plan is the short-term, post-disaster planning document for Jefferson County that establishes the chain of command and all related organizational responses immediately following a significant hazard event or other catastrophe. The CEMP follows the National Incident Management System (NIMS) structure and is divided into three (3) sections (Basic, Recovery, and Mitigation) and Annexes, which include a Terrorism Annex and Maps.

The Basic Plan contains preparedness and response elements, including general information about hazards in our community, geography, demographics, concept of operation, responsibilities, financial management, and specific references to standard operating guides, supporting plans, and County and State authority to implement the CEMP.

The Recovery section contains the outline of how the County will recover from an event by: implementing damage assessment processes; opening disaster recovery centers to assist

residents; managing debris; keeping citizens informed through community relations; identifying unmet needs; and providing emergency housing of citizens.

The Mitigation section contains the process for identifying mitigation projects, identifying sources of funding for projects, and providing mitigation education. This annex identifies participating agencies of the Local Mitigation Strategy (LMS) Committee, and their responsibilities. It also identifies the Working group and the process it follows. This section is intended to be consistent with the LMS, and to utilize and/or support mitigation initiatives and projects identified in the LMS.

City of Monticello/Jefferson County Local Mitigation Strategy & Community Rating System Annual Progress Reports

FEMA requires these annual progress reports as part of the City of Monticello's participation in the National Flood Insurance Program (NFIP) and to maintain its standing in the associated municipal Community Rating System (CRS). These reports are useful because they review the initiatives in the LMS annually and are made available to the public.

1.7 Planning Process

The federal rules that govern the local mitigation strategy process require that the LMS Committee (also known locally as the LMS Working Group) meet quarterly to review the LMS and any proposed changes. The LMS Committee has done so in accordance with these rules, and the minutes from these meetings are included in this document as Appendix C. All Committee members and additional stakeholders are contacted via an email distribution list that the LMS Coordinator regularly updates. The Public Information (Jefferson County) is on this email distribution list. All of these meetings are open to the public.

The formal planning process to review and update the existing Monticello-Jefferson County Local Mitigation Strategy began in 2009 at a publicly advertised meeting of the Working group. Since that initial meeting, local officials and staff and other community members and organizations have met several times as a subcommittee to share information and coordinate the update processes for policies and information included in the 2025 update. All regular LMS Committee meetings are publicly noticed in conformance with existing Florida Statutes and rules as well as local government policies and rules.

1.7.1 LMS Planning Process and Schedule (2021-2025)

November 2024

The LMS Committee approved the 2025 LMS update process at their regular meeting on November 21, 2024. At that meeting, the LMS Committee members discussed the LMS update process and the new FEMA requirements. Planning Department staff sought the Committee's authorization to create an LMS Update Subcommittee composed of interested stakeholders to provide hazard mitigation data and other information for the 2025 update process. The Subcommittee was composed of staff from the organizations comprising the membership of the Working group, as well as other local institutions and agencies and the

public. All LMS Committee meetings were publicly noticed, including added to the Planning Department's calendar of meetings and other events, and open to the public.

August 2025

Elements of the 2025 LMS update were presented to the LMS Committee at their annual meeting on August 27, 2025. The Committee authorized staff to submit a draft to the Division of Emergency Management to begin the review process.

December 2025

A draft copy of the 2025 update was submitted to the Florida Division of Emergency Management for review in early 2026.

The advertised Jefferson County and City of Monticello council meetings for adoption by resolution of the 2025 LMS update will be held respectively on May and June 2026.

1.7.2 Opportunity for Public Involvement

The City of Monticello and Jefferson County both recognize the necessity of public participation and education in the LMS update process. All LMS Committee meetings are advertised and open to the public and promoted in various media. All of these meetings are posted to the Planning Department's web-based community meeting calendar. The agendas for these meetings are including in this document as Attachment C.

To encourage public participation and increase community knowledge regarding the current LMS update and related planning processes. If community members are unable to attend any LMS public or other meetings, citizens can call the Emergency Management staff with questions, concerns or comments via an e-mail link on the webpage or by telephone through the number listed.

Finally, the County and City commission meetings adopting the 2025 update advertised will be publicly noticed, and citizens will have at least 30 days to review and comment on the draft LMS before the City and County Commissions adopt the 2025 update to the LMS. Citizens were also provided an opportunity to speak during these public meetings.

Despite these efforts to solicit community input, no public comments were formally received as part of this process. However, two citizens joined one meeting. This was also true of the 2016 and 2021 updates of the LMS. Soliciting effective public input is a continuing issue not only with emergency management, but other planning documents in other jurisdictions in this age of social media, media saturation, competing priorities, and other distractions. Governments at all levels have been experimenting with new forms of communication to educate citizens and to foster public feedback. These include both traditional and new forms of communication, including social media.

At this time, the 2025 LMS update, including maps and attachments, is available on the Jefferson County Division of Emergency Management's website at

https://www.jeffersoncountyfl.gov/p/county-departments/emergency-management, and a description of the LMS update process.

If any public comments are received as part of the LMS process over the next five years, they will be considered by the Working Group. These comments may include considering new projects to mitigate hazards, new initiatives and/or their relative priority, increased public education, or even requests to consider new hazards. These comments may also provide an opportunity to educate the public in the limits of what can be accomplished with hazard mitigation grant funds, and the need to provide matching funds or other combinations of resources.

As part of this process, the Working Group will work to reach out to the public as part of their responsibilities. The Working Group will also conduct a public meeting in mid- to late-2029 to provide the public with an opportunity to learn about this update and to solicit feedback. Any comments received by the public will be considered as previously described.

2 County Profile

2.1 Jefferson County General Profile

Jefferson County is in the northern part of the Florida Peninsula. The region known as the "Big Bend" for the arc of the Gulf of Mexico shoreline where the panhandle meets the peninsula. It is bordered to the north by Georgia (Thomas County and Brooks County), to the

northeast by Madison County, to the east by Taylor County, to the southeast by Leon County, to the west by Wakulla County, and to the south by the Gulf of Mexico. It is the 62nd most populous county with 0.1% of Florida's population.

The county is considered part of the Tallahassee, FL Metropolitan Statistical Area. Founded in 1827, the county seat is Monticello and is the 62nd most populous county in the state. The total area of Jefferson County is 407,680 acres, or approximately 637 square miles, of which 598 square miles is land, and 38 square miles is water. It is about 39 miles from north to south and about 24 miles wide at the widest point, and there are about six miles of coastline.

The county is known as the "Keystone County," identified by being the only county bordering Georgia and extending to the Gulf of Mexico. The Northern Highlands and the Coastal Lowlands in Jefferson County are two of the major physiographic divisions and are separated by the Cody Scarp. The Cody Scarp (a.k.a, escarpment) is an ancient formation from ~1.8 million to 10,000 years ago, where the shoreline persisted.

2.2 Demographics

Table 1 Table of Demographics for Jefferson County

Total Population	15,921 people
Population Density and Distribution	26.6 people/square mile
Special Needs Population[3]	20.4% 3,223 people See Narrative Below

[3] 2023 https://www.flhealthcharts.gov/Charts/

Farm Workers Total[4] Migrant Farm Workers (included in total above)	851 163
Non-English Speaking Populations[5]	≈880
Tourism	See Narrative Below
Transient Populations	See Narrative Below
Mobile Homes and population[6]	2,485 homes ≈5,800 people
Inmate Population[7]	1,179 people

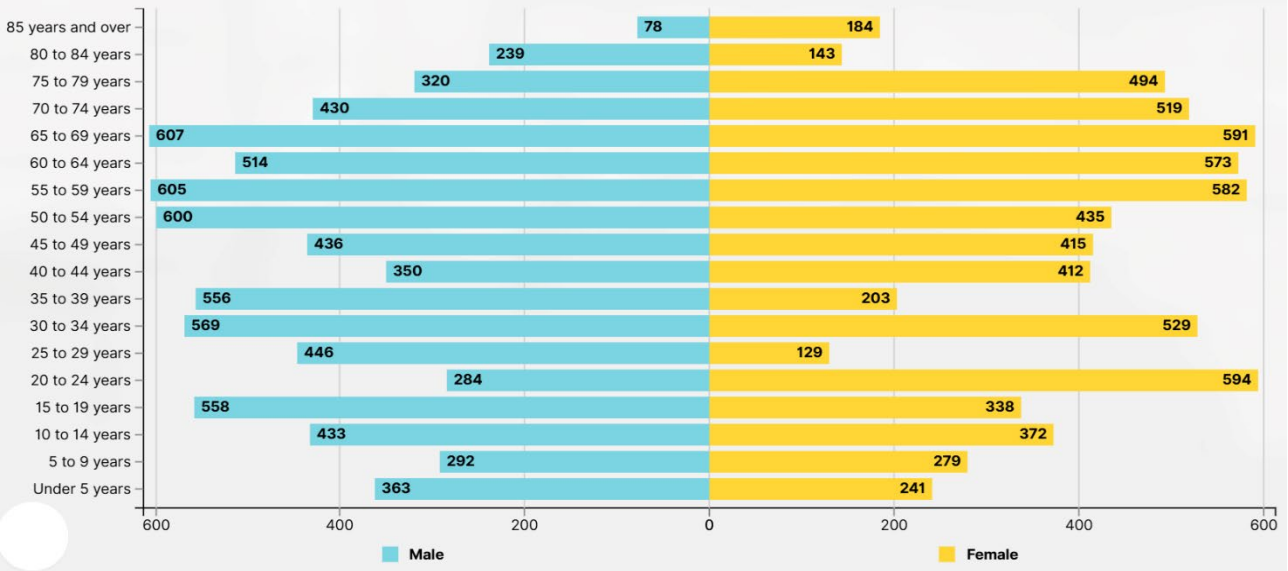


Figure 1: Jefferson County Population Distribution by Age and Sex
Source: https://data.census.gov/profile/Jefferson_County,_Florida?g=050XX00US12065

2.2.1 Special Needs Population

In 2023, the percentage of the Population of Civilian Non-Institutionalized with a Disability (Census ACS) in Jefferson County was 20.4, compared to 13.5 in Florida. The line graph shows change over time when there are at least three years of data. Jefferson County is in the fourth quartile for this measure. This means that relative to other counties in Florida, there are fewer Population Civilian Non-Institutionalized with a Disability (Census ACS) in about three-quarters of the counties.

[4] 2022 https://data.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1,_Chapter_2_County_Level/Florida/st12_2_007_007.pdf

[5] Includes persons for whom English is not the first language and persons with hearing impairment or loss. In addition, this number estimates the number of hearing-impaired people based on the Health Department statistics and American Community Survey, Census data for 2022.

[6] 2023 https://www.census.gov/programs-surveys/acs/data.html

[7] 2025 https://www.fdc.myflorida.com/institutions/list-of-major-institutions/103; this number also includes people residing at the county jail.

2.2.2 Tourism Areas and Impact

Jefferson County is not typically considered a tourist destination; however, downtown Monticello has rural small-town appeal. It offers the kind of experience many travelers crave but rarely find in big cities. Tourists are drawn to its slower pace of life, where the town center, family-run shops, and historic buildings tell stories of generations past. Instead of crowded attractions, visitors discover hidden gems—like cozy cafés, farmers' markets, and craft boutiques filled with handmade goods.

The county relies on several fairs and festivals annually. The Watermelon Festival is the most popular, attracting an estimated 8,000 people. The other popular event is the annual Old Glory Rodeo, which sees an approximate 1,500 attendees. The other popular event in the county is the annual Christmas Parade downtown, which is very popular with locals and the surrounding areas, attracting approximately 2,500 spectators.

2.2.3 Transient Population

This county experiences transient populations throughout the year, which vary. According to three different short-term vacation rental online sources, the county has an estimated 65 to 125 short-term rental properties for tourists and travelers to the area. This can house an estimated 160 to 310 people. The actual number is difficult to determine because many people do not register their property with the county or take their rental on and off the market in response to economic fluctuations or changing seasonal opportunities.

The other transient population is people experiencing homelessness. According to the Florida Department of Health, FLHealthCharts, Homelessness, Jefferson County does not see a regular population of people experiencing homelessness. However, the county will see occasional individuals traveling through the county on their way to Tallahassee, where more opportunities and services are available for people experiencing homelessness.

The main transient population, addressed above, is the tourist population.

2.3 Economic Profile

Table 2 Employment by Major Sectors, 2023 Data[8]

Sector	Percentage	Employment
Retail Trade	15.6%	~970
Public Administration (Gov't)	11.4%	~709
Educational Services	10.4%	~640
Health Care & Social Assistance	10.2%	630
Accommodation & Food Services	8.79%	545

[8] *Source: https://datausa.io/profile/geo/jefferson-county-fl*

Construction	5.69%	353
Professional, Scientific, & Technical Services	3.89%	241
Agriculture, Forestry, & Timber	2.08%	129

Table 3 Per Capita Income Comparisons for Jefferson County[9]

Area	Per Capita Income
Jefferson County	$52,094
City of Monticello	$44,920
State of Florida	$41,055
United States	$37,638

2.3.1 Property Values and Home Ownership

According to 2023 data from the Census Bureau's American Community Survey, mean property values in Jefferson County were $198,800. This is an 18.6% increase over the previous year. In addition, the county has a home ownership rate of 75.1%.

2.3.2 Poverty and Living Conditions

As of 2023, according to the Census Bureau, American Community Survey data for 2023, 20.3% of the population, or 3,231 people, live below the poverty line. In addition, 10.4% of the population, or 1,656 people, live in substandard housing, which is on a slowly decreasing trend of 1.34% less since the previous year's information.

2.4 Future Development Trends

Table 5: Population Estimates by Jurisdiction, 2025 – 2050.[10]

Jurisdiction	Population 2025	Population 2030	Population 2040	Population 2050
Monticello	2,686	2,771	2,873	2,941
Countywide Total	15,800	16,300	16,900	17,300

[9] *2023 Data, Federal Reserve Bank, https://fred.stlouisfed.org/series/PCPI12065*

[10] https://bebr.ufl.edu/wp-content/uploads/2025/08/projections_2025.pdf

According to the University of Florida Bureau of Economic and Business Research (2025), Jefferson County's population is expected to grow slowly over the next 25 years.

To ensure consistency with other local planning mechanisms, future development trends are derived from the Jefferson County Comprehensive Plan and new population estimates.

Within the Comprehensive Plan, the Future Land Use Element establishes the blueprint for the growth and development of the area. In order to adequately plan for future growth in Jefferson County and the City of Monticello, assumptions are made as to the amounts of residential, commercial and other uses that will be required to support land development and population growth within the 2050 planning horizon. The Future Land Use Map in the Comprehensive Plan is based on these assumptions, as well as the community's population projections and the location and distribution of natural resources, infrastructure, agricultural areas, and other features.

Through the state-mandated Comprehensive Plan, Jefferson County and the City of Monticello have identified priority growth areas and developed strategies to direct growth into these areas. These strategies were established to alleviate development pressures on the northeastern part of the City and County, where much growth has occurred beyond the urban core and at densities below the community's average.

The Future Land Use Map within the Comprehensive Plan displays the future growth areas within Jefferson County. The plan is intended, through policy and the Future Land Use Map, to create a compact, urban development form within the USA by 2030. This pattern of development was selected to minimize urban sprawl and to focus growth where infrastructure is in place.

Several objectives and policies in the Comprehensive Plan also mandate the strict protection of the community's natural resources, placing the highest priority in the development of land.

2.4.1 Real and Tangible Property Just Value

As stated by the Department of Revenue Property Tax Oversight, 01/2025, the total Just Value of the real property parcels and the tangible personal property for the County are: $1,843,824,249- see Table 6.

The "just value" is the fair value of property for tax purposes. It describes the full cash or market value of property, and is the price at which the property would most likely sell

Table 6: Total Just Values of the Real Property and Tangible Personal Property in Jefferson County

Property Type	# of Parcels	Just Value
Single Family Residential	4,425	$371,455,295
Multi-Family Residential	96	$12,046,654
Agricultural	3,849	$664,548,656
Vacant Residential	2,567	$46,721,215
Vacant Non-Agricultural	108	$4,023,304
Commercial	322	$45,153,556
Government & Institutional Taxable	625	$81,345,339
Homestead Agricultural	1,121	$227,853,595
Government & Institutional Non-Taxable	883	$202,243,425
Total Real Property Value	**13,998**	**1,655,391,044**
Tangible Personal Property		$180,995,773
Railroad and Private Carlines		$7,437,431
Total Just Value		**$1,843,824,249**

2.4.2 Overall Development of Both Jurisdictions

Both Jefferson County and Monticello have not seen a drastic increase in development since the last update of the LMS. This trend is changing due to the affordability of land and housing for people commuting to nearby Tallahassee. Since the last update, the county has seen an increase in housing projects and some new industries moving to the county. Property taxes are considerably lower in Jefferson County and Monticello. In addition, the county has excellent accessibility to transportation routes, such as Interstate 10, US Highway 19, and US Highway 27.

Protection of the natural environment. Protected environmental features include steep slopes, wetlands, floodplains, floodways, listed species habitats, and karst features. Land development regulations require the protection of these areas by placing them under permanent conservation easements.

Strict limitations on development in these areas, coupled with the land use categories established in the Plan, help minimize vulnerability of newer buildings, infrastructure, and critical facilities within Jefferson County by limiting their location, density, and impacts. The only exception is residential structures on single-family private parcels, which are allowed only when built to strict standards (e.g., elevating structures).

As of early 2025, there have been no major changes to the Comprehensive Plan to facilitate large new developments in the last five years.

Jefferson County and the City of Monticello population growth rates are generally slower; according to the University of Florida's Bureau of Economic and Business Research, the combined population of Jefferson County and the City of Monticello will be 17,300 and 2,941, respectively, by 2050.

These development trends and their accompanying land use plans have been considered by Planning staff and the LMS Working Group. The most significant effect on the initiatives stems from the increase in critical facilities, including electric transmission and distribution infrastructure, sewer lift stations, and traffic control facilities. Additional impacts from development also impact flood zones and affect structures and place extra stresses on existing critical facilities. The projects that are proposed for HMGP funding are often in response to these trends and stresses. These trends will continue to be reviewed by Planning staff, the LMS Committee, and stakeholders annually for their potential impact on hazard mitigation, including avoiding hazardous areas such as floodplains, reducing the likely effects of trees on electric utility distribution and transmission facilities while providing sufficient tree canopy cover to mitigate extreme temperatures, and other mitigation measures. The hazard mitigation initiatives and projects in this plan will also be reviewed annually to address any significant land-use plans and development trends.

It is predicted that the next LMS update will see significant changes in development as the population increases and businesses move to the county and city in search of a lower tax burden, reduced traffic impacts, lower crime rates, and an overall slower pace of life.

3 Hazard Identification, Vulnerability Assessment, and Risk Assessment

The LMS plan for Jefferson County serves as the County's single risk assessment document.

FEMA defines natural hazards as “natural events that threaten lives, property, and other assets… [and that] tend to occur repeatedly in the same geographical locations because they are related to weather patterns or physical characteristics of an area.” Humans create technological and societal hazards.

Jefferson County has experienced numerous disasters associated with various natural hazards events in the last two decades. The majority of these federally declared disasters have resulted from severe storm events, six of which qualified for federal disaster assistance. Table 7 lists the federal disaster declarations issued since 2001.

Only hazards that have been determined to pose a significant risk to the county or stakeholders of either plan will be fully profiled. Natural and human-caused hazards not fully profiled include the following:

1. Tsunamis – there is no history of previous tsunamis, no nearby faults, and if one were to occur, any impacts are expected to be minimal and localized to the shore
2. Earthquakes – Jefferson County is not near a fault line
3. Sinkholes – although the County and the City of Monticello are constructed on a karst geology, the historical occurrence of sinkholes has been extremely minimal. Recorded sinkhole occurrences are fewer than one per decade, and of those, very few have affected infrastructure or the population.
4. Commercial nuclear power plant incidents – there are no nuclear power plants nearby.

Table 7: Recently Declared Disasters in Jefferson County, 2001 – 2025[11]

Declaration	Date	Event	Primary Damage
#1381	June, 2001	T.S. Allison	Riverine and Local Flooding
#1545	September, 2004	Hurricane Frances	Flooding; Debris
#1551	September, 2004	Hurricane Ivan	Flooding; Debris
#1561	September, 2004	Hurricane Jeanne	Debris
#1595	July, 2005	Hurricane Dennis	Debris
#1785	August, 2008	T.S. Fay	Flooding; Debris; Power Outages
#1831	April, 2009	Severe Storms	Flooding; Wind Damage
#4280	September, 2016	Hurricane Hermine	Debris; Power Outages
#4337	September, 2017	Hurricane Irma	Debris; Power Outages
#4399	October, 2018	Hurricane Michael	Debris; Power Outages
#4486	March, 2020	COVID-19	Pandemic, loss of life, PPE shortage
#4564	September, 2020	Hurricane Sally	Flooding, Bridge Outage, Power Outage, Debris
#4673	August 2023	Hurricane Idalia	Flooding, Bridge outage, Power outage, debris
#4794	June, 2024	Florida Severe Storms	Debris
#4806	August, 2024	Hurricane Debby	Debris, Power Outage
#4828	September, 2024	Hurricane Helene	Debris; Power Outages

There have been a few local events that have not warranted a federal disaster declaration. The 2016 LMS previously provided a thorough examination of the historic impact, documented damages, vulnerable populations, and potential economic impact associated with each hazard. The LMS Update Committee has updated these hazard data as part of the 2021 LMS update process.

The hazards identified by the LMS Working Group as potentially affecting Jefferson County and the City of Monticello include the following (not in order of severity):

1. Hurricanes and Tropical Storms (including Storm Surges)
2. Severe Storms
   (a) Thunderstorms
   (b) Tornadoes
   (c) Lightning
3. Drought
4. Flooding
5. Extreme Temperatures
6. Wildfires
7. Sinkholes

[11] https://www.fema.gov/disaster/declarations?field_dv2_declaration_date_value%5Bmin%5D=2019&field_dv2_declaration_date_value%5Bmax%5D=2025&field_dv2_declaration_type_value=All&field_dv2_incident_type_target_id_selective=All&field_dv2_state_territory_tribal_value%5B%5D=FL

8. Invasive Plants and Animals
9. Diseases and Pandemics Technological and Societal Hazards:
10. Public Infrastructure Failure
    (a) Telecommunications
    (b) Cybersecurity
    (c) Electricity, Water, and Sewer
    (d) Dams
11. Hazardous Materials (Storage and Transportation)
12. Transportation Incidents
    (a) Roadways
    (b) Railway
13. Terrorism
    (a) Violent Acts
    (b) Biohazards
    (c) Cyber Attacks

This updated and modified list of hazards reflects the lessons of Hurricanes Hermine, Irma, Michael, Idalia, Debby, and Helene the effects of hazards, the changing nature of technology and the acquisition of new and updated data from old and new hazards, and the anticipated efforts of global climate change and the expected effects upon the natural and built environment of the local area.

The risk and vulnerability to these hazards, in turn, have been reflected in the updated list of hazard mitigation initiatives and projects, including their priority. Where specific data are available (i.e., Hazus Model runs), these have been used to update various sections of LMS based on existing development, particularly that which has occurred over the last five years.

3.1 Hazard Risk and Vulnerability

Risks are rated to help prioritize mitigation objectives and initiatives. Ratings typically incorporate the magnitude or severity of risk by hazard and its likelihood of occurrence. Additional information can also be incorporated into risk assessments, such as expected changes in occurrences, increasing severity of risk and/or vulnerability, and other variables.

The measurement and rating of risk, while technically quantifiable, are nevertheless not exact sciences. Other less-quantifiable factors used to estimate risk include institutional knowledge, historical and local knowledge and experience, and professional judgement. These somewhat intangible factors are essential components to weighing and rating risks for a community.

For the 2025 LMS update, the Working Group elected to continue using the voting system, augmented by institutional, historical, and local knowledge and experience, professional judgement, and consultation with subject matter experts. The Risk Rating scores and ranking for each hazard are listed in Table 8.

There are several ways to identify and classify risks from various hazards. Previous editions of the Monticello-Jefferson County LMS used a simple risk classification system for estimating

the degree of risk to the residents of Jefferson County and the City of Monticello from potential hazards into the following categories:

Priority Ranking was defined as follows:
High – Extremely important. High impact on the County and Municipality
Medium – Moderately important. Moderate impact on the County and Municipality.
Low – Low importance. Low impact on the County and Municipality
X – No impact. Of no importance to the County and Municipality

Probability was defined as follows:
High – Occurrence at least one or more times a year.
Medium-High - Occurrence at least once every three years.
Medium – Occurrence at least once every five to seven years.
Low – Occurrence less frequently than every ten years
X – Event has never happened and is not expected to occur, not profiled.

Magnitude was defined as follows:
High – the entire jurisdiction is potentially affected by an event.
Medium – Most of the jurisdiction is potentially affected by an event.
Low – Only a specific area of the jurisdiction is potentially affected.
X – event has never occurred, nor is it expected to occur.

Table 8 Hazards - Priority Ranking, Probability, and Magnitude, Jefferson County

Hazard	Priority Ranking		Probability		Magnitude	
	Unincorporated	Monticello	Unincorporated	Monticello	Unincorporated	Monticello
Hurricanes and Tropical Storms	H	H	M-H	MH	H	H
Severe Storms (tornadoes, thunderstorms/lightning)	M	M	M-H	M-H	M	M
Environmental Events (hail, freeze, drought/ heat wave)	L	L	M-H	M-H	L	L
Wildfires	H	M	H	L	M	L
Flood	H	H	H	H	H	M
Coastal Erosion	L	X	M	X	L	X
Sinkholes	L	L	L	L	L	L
Biological Events (Diseases and Pandemics)	L	L	L	L	H	H
Terrorism Events	L	L	L	L	L	L
Technological Events (HazMat, Oil Spill)	M	M	M	M	L	L

Source: Jefferson County Local Mitigation Strategy Committee (October 2024)

The probability of occurrence is summarized for each hazard within each Estimated Impacts, Probability, and Extent section. Where specific data are unavailable or limited, professional

judgment and institutional knowledge have been used to estimate the probability of occurrence.

At this time, the U.S. Department of Homeland Security is encouraging the use of a Threat and Hazard Identification and Risk Assessment (THIRA)[12],[13] and the Stakeholder Preparedness Review (SPR) three-step process to meet the primary goal of the National Preparedness System (NPS). The National Preparedness Goal describes the five mission areas as follows:

- **Prevention:** Prevent, avoid, or stop an imminent, threatened, or actual act of terrorism.
- **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.
- **Mitigation:** Reduce the loss of life and property by lessening the impact of future disasters.
- **Response:** Respond quickly to save lives; protect property and the environment; and meet basic human needs in the aftermath of an incident.
- **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.[8]

The mission areas and core capabilities organize the community-wide activities and tasks performed before, during, and after disasters into a framework for achieving the goal of a secure and resilient Nation.

The THIRA is a three-step risk assessment completed every three years. It helps communities answer the following questions:

- What threats and hazards can affect our community?
- If they occurred, what impacts would those threats and hazards have on our community?
- Based on those impacts, what capabilities should our community have?

The THIRA helps communities understand their risks and determine the level of capability they need in order to address those risks. The outputs from this process lay the foundation for determining a community's capability gaps during the SPR process.

For the purposes of this update, a formal THIRA and SPR consistent with the NPS was not conducted due to a lack of time, personnel, and funding. However, this process will be reviewed for its applicability to the next update of the Monticello-Jefferson LMS.

[12] https://www.fema.gov/sites/default/files/2020-06/fema_national-thira-overview-methodology_2019_0.pdf

[13] https://www.fema.gov/sites/default/files/2020-04/CPG201Final20180525.pdf

3.2 Hazard Vulnerability Modeling

Estimating hazard vulnerability across a large area such as Jefferson County and the City of Monticello involves many variables, including the type, severity, and geographic spread of hazard events, historical hazard occurrences, number, type, and value of potentially affected properties, affected individuals, topography, and other variables.

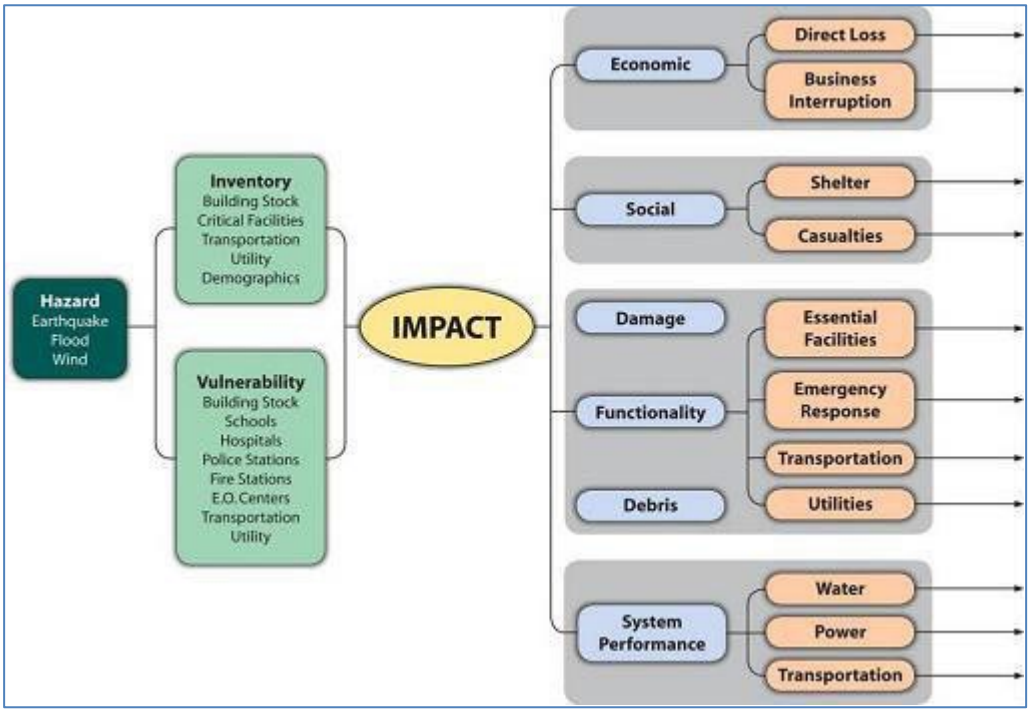


Figure 2: Conceptual Model of Hazus-MH Methodology

3.2.1 Hazus-MH 7.0 Hurricane Wind Model

The Hazus-MH 7.0 Hurricane Wind Model[14] is an improvement over existing loss estimation models because it uses a wind hazard-load-damage-loss framework. New features in the Hazus-MH 7.0 Wind Model include:

- **An updated historic storms database that includes several existing historic storms;**
- **New coastal storm surge modeling capability that includes SLOSH and SWAN;**
- **Integration of the CDMS tool;**
- **NOAA hurricane advisory data is used to model storms with an adjustment feature for calculating building damage and loss;**
- **An updated wind field model for user-defined storms; and**
- **A new vulnerability permits the calculation of additional losses to manufactured housing due to trees blowing down.**

Replacement costs were derived from Mean Square Foot Costs for residential, commercial, industrial and institutional building occupancy classes. The Means publication is a nationally

[14] https://www.fema.gov/flood-maps/products-tools/hazus

accepted reference on building construction costs, which is published annually. This publication provides cost information for a number of low-rise residential buildings, and for 70 other residential, commercial, institutional and industrial buildings. These are presented in a format that shows typical costs for each model building, showing variations by size of building, type of building structure and building enclosure.

Hazus-MH 7.0 is a loss estimation tool for planning purposes only. Uncertainties are inherent in any loss estimation methodology and arise in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from approximations and simplifications necessary to conduct such a study; incomplete or outdated data on inventory, demographic, or economic parameters; the unique nature and severity of each hazard when it occurs; and the amount of advance notice that residents have to prepare for the incident. As a result, potential exposure and loss estimates are approximations. Results should not be interpreted or used as precise results and should be used only to understand relative risk.

3.2.2 Hazus-MH 7.0 Flood Model

The Hazus Flood Model produces loss estimates for vulnerability assessments and plans for flood risk mitigation, emergency preparedness, response, and recovery. Losses can be calculated for a single flood event or across a range of flood events, enabling annualized estimates of damage. Incomplete or inaccurate inventories of the built environment, demographics, and economic parameters can lead to uncertainty in estimates produced by the Hazus Flood Model. The following limitations of the model should be considered:

- **While the Hazus Flood Model can be used to estimate losses for an individual building, the results must be considered as an average for a group of similar structures.**
- **When using the general inventories included with Hazus, the accuracy of losses may be less than for losses calculated from available local inventory stock imported by the user.**
- **The Flood Model performs its analysis at the census block level with small numbers of buildings. Damage analysis of these small numbers makes the Flood Model more sensitive to rounding errors.**

The Flood Model methodology includes a flood hazard analysis and a damage analysis. In the hazard analysis phase, characteristics such as frequency, discharge, and ground elevation are used to model the spatial variation in flood depth and velocity. During the loss estimation phase, structural and economic damage are calculated from the hazard analysis results using vulnerability function curves. Model results are then conveyed to the user via a series of reports and maps. Detailed information on the Hazus Flood Model can be found in the Hazus Flood Model User Guide and the Hazus Flood Model Technical Manual.

A Flood Hazards

The Hazus Flood Model analyzes both riverine and coastal flood hazards. Flood hazard is defined by a relationship between depth of flooding and the annual chance of inundation to that depth. Depth, duration and velocity of water in the floodplain are the primary factors contributing to flood losses. Other hazards associated with flooding that contribute to flood

losses include channel erosion and migration, sediment deposition, bridge scour and the impact of flood-born debris. Jefferson County is a coastal county.

B Levels of Analysis

The Flood Model is designed for three levels of analysis, as shown below. Each subsequent level builds on the data and analysis procedures available in previous levels.

Level 1**:** The simplest type of analysis is based primarily on data provided with the software (e.g., census information, general building stock, general runoff models, no detailed water control data for hydraulics, etc.). The estimates are crude but are appropriate as initial loss estimates to determine where detailed analyses are warranted.

Level 2**:** Improves Level 1 results by taking into consideration additional data that are readily available. It requires more extensive inventory data and user effort than the Default Data Analysis. The purpose of this type of analysis is to provide the best estimates of flood damage/loss that can be obtained using the standardized methods of analysis. The user may need to employ consultants to assist in the implementation of certain methods. For example, knowledgeable users of hydrology and hydraulics models are required to define flood elevations.

Level 3: This analysis requires extensive efforts by the user in developing information on the flood hazard and the measure of exposure. This type of analysis incorporates results from engineering and economic studies carried out using methods and software not included within the methodology. At this level, one or more technical experts are required to acquire data, perform detailed analyses, assess damage/loss, and assist the user in gathering extensive inventory data. This level of analysis typically requires extensive participation by local utilities and operators of special facilities. Level 3 analyses usually take six months to two years to complete. The description of model requirements and typical applications for each level is presented in the table below:

C Riverine Hazard Analysis: Depth to Flood Methodology

The flood risk assessment used a depth-to-flood approach to estimate losses. It was generated by comparing Base Flood Elevation (BFE) data with a Digital Elevation Model representing ground elevation. The assessment is calculated for a 100-Year return period. The source for 100-year base flood elevations and associated floodplains is the FEMA Digital Flood Insurance Rate (FIRM) data. The effective FIRM data for Jefferson County was published in 2008 as part of the FEMA Map Modernization initiative. The floodplain delineations and BFE data currently are 50% updated to 2025 and the remaining 50% was updated in 2014.

National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements.[15] As stated by FEMA... 'The NFIP is aimed at reducing the impact of flooding on private and public structures. This is achieved by providing affordable insurance for property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and

[15] Source: https://www.fema.gov/national-flood-insurance-program Compliance with NFIP

improved structures. Overall, the program reduces the socio-economic Impact of disasters by promoting the purchase and retention of Risk Insurance in general, and National Flood Insurance in particular."

The City of Monticello and Jefferson County participate in the National Flood Insurance Program. Jefferson County has 95 Flood Insurance Policies in force.

The study was constrained to the Zone-AE floodplains from the FIRM data because Hazus requires base flood elevation data. The Zone AE flood zones have base flood elevations determined by engineering studies. Base flood elevations are not determined for the Zone-A floodplains; thus, they were excluded from the analysis

3.3 Hazard Vulnerability Assessment

This next section describes Jefferson County and the City of Monticello's vulnerability to natural hazards. Threats Found in Jefferson County with a Moderate to High Vulnerability Rating

3.3.1 Hurricanes and Tropical Storms

A Description

Hurricanes and tropical storms are dangerous low-pressure weather systems that form over warm tropical and subtropical waters and can impact all jurisdictions of Jefferson County. These storms rotate in a counterclockwise circulation in the Northern Hemisphere around a relatively calm center called the eye. A tropical storm has sustained winds of 39 to 73 mph, while a hurricane has sustained winds of 74 mph or greater. Hurricanes are further categorized on the Saffir-Simpson Hurricane Wind Scale from Category 1 to Category 5, with Category 3 or higher considered major hurricanes capable of causing devastating damage.

Hurricane eyes are typically 20 to 40 miles wide, while the overall storm can extend hundreds of miles, sometimes reaching 500 miles in diameter. As these systems approach land, they can produce destructive winds, torrential rainfall, tornadoes, dangerous surf, rip currents, and life-threatening storm surge that can inundate coastal and low-lying areas. Rainfall totals commonly range from 6 to 12 inches, but much higher amounts are possible, increasing the risk of flash flooding and river flooding well inland.

Hurricanes can persist for days or even weeks over open water and may travel long distances, affecting large portions of the Gulf Coast and Atlantic seaboard. The official Atlantic hurricane season runs from June 1 through November 30, although storms can occasionally develop outside those dates. Because of Gulf County's coastal location, vulnerability to storm surge, flooding, and wind damage, hurricanes and tropical storms remain among the most serious natural hazards facing the county.

B History and Background

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous and require preventative measures. In the western North Pacific, the term "super typhoon" is used for tropical

cyclones with sustained winds exceeding 150 mph. See Table 9, the Saffir-Simpson Hurricane Wind Scale, for specifics on a hurricane's sustained wind speed.

Table 9 Saffir-Simpson Hurricane Wind Scale

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
1	74-95mph 64-82 kt 119-153km/h	**Very dangerous winds will produce some damage:** Well-constructed frame homes could have damage to the roof, shingles, vinyl siding, and gutters. Large branches of trees will snap, and shallowly rooted trees may be toppled. Extensive damage to power lines and poles will likely result in power outages that could last a few to several days.
2	96-110mph 83-95kt 154-177km/h	**Extremely dangerous winds will cause extensive damage:** Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted, blocking numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3 (major)	111-129mph 96-112kt 178-208km/h	**Devastating damage will occur:** Well-built framed homes may incur significant 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 (major)	130-156 mph 113-136 kt 209-251km/h	**Catastrophic damage will occur:** Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted, and power poles will be downed. 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 or months.
5 (major)	157mph or higher 252km/h or higher	**Catastrophic damage will occur:** 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 for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

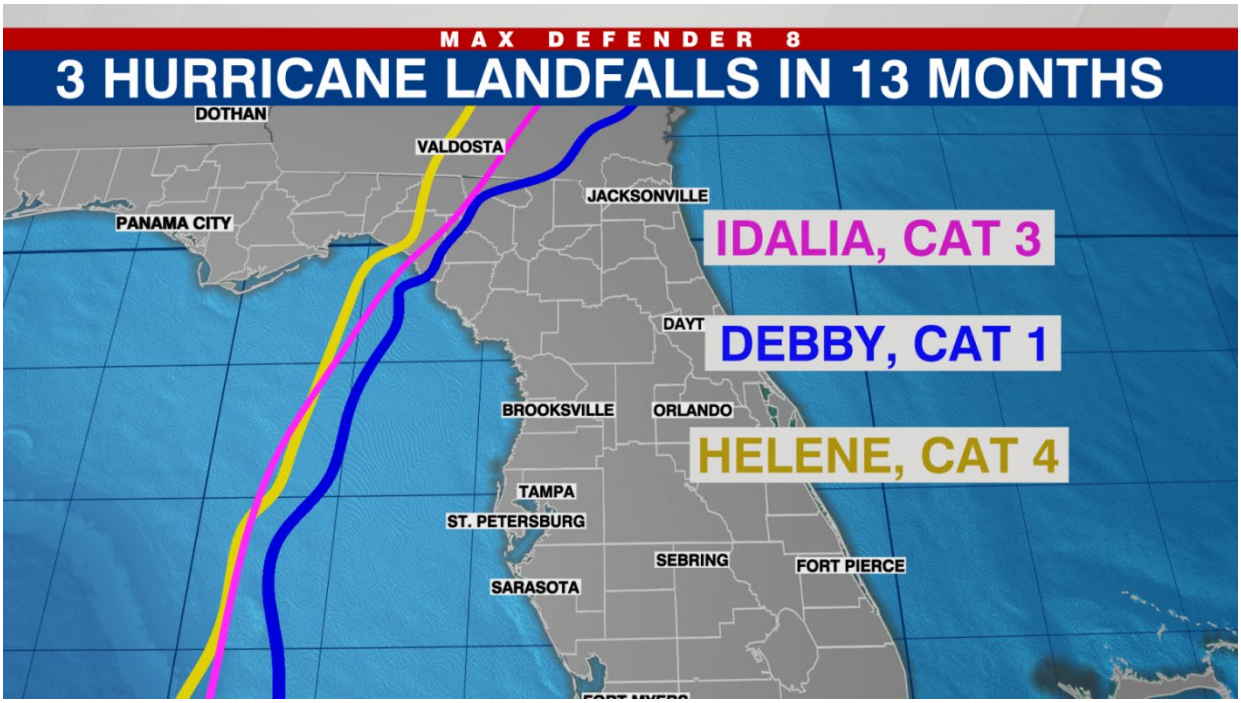


Figure 3: The tracks of the three most recent hurricanes affecting Jefferson County

https://www.wfla.com/weather/tracking-the-tropics/3-hurricanes-have-made-landfall-in-taylor-county-in-13-months

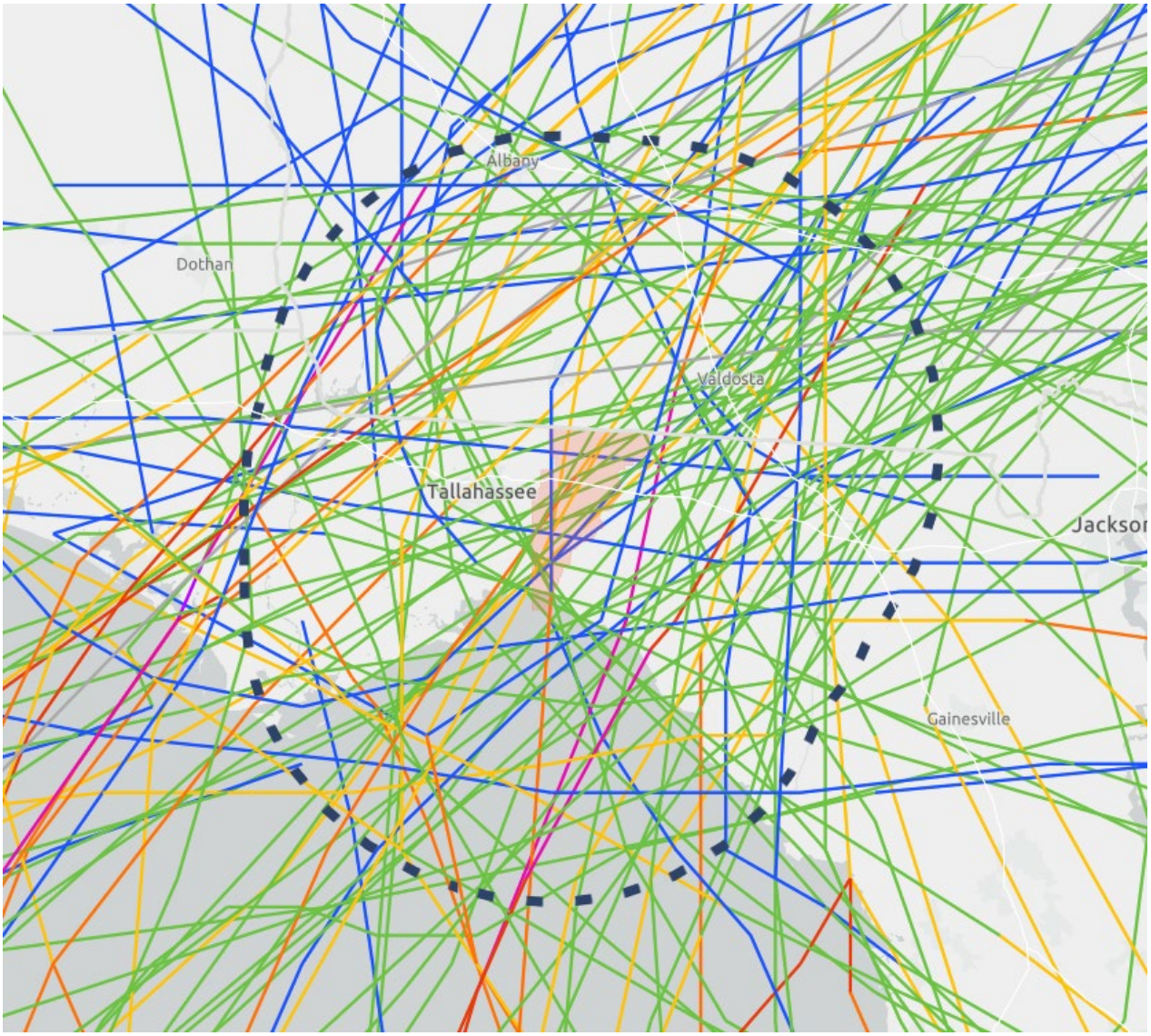


Figure 4. Tropical Storms and Hurricanes Impacting Jefferson County Since 1851[16]

Table 10. History of Tropical Storms and Hurricanes Impacting Jefferson County Since 1851

Name	Month / Year	Max Wind Speed	Max Category		Name	Month / Year	Max Wind Speed	Max Category
HELENE	September-2024	120	H4		UNNAMED	September-1937	50	TS
DEBBY	August-2024	70	H1		UNNAMED	August-1937	60	TS
IDALIA	August-2023	115	H4		UNNAMED	August-1936	50	TS
NICOLE	November-2022	65	H1		UNNAMED	August-1935	160	H5
MINDY	September-2021	50	TS		UNNAMED	August-1933	120	H4

[16] https://coast.noaa.gov/hurricanes/#map

Name	Month / Year	Max Wind Speed	Max Category		Name	Month / Year	Max Wind Speed	Max Category
ELSA	June-2021	75	H1		UNNAMED	September-1932	65	ET
FAY	July-2020	50	TS		UNNAMED	September-1929	135	H4
NESTOR	October-2019	50	TS		UNNAMED	August-1928	80	H1
MICHAEL	October-2018	140	H5		UNNAMED	August-1928	90	H2
IRMA	August-2017	155	H5		UNNAMED	July-1926	120	H4
HERMINE	August-2016	70	H1		UNNAMED	September-1924	65	ET
COLIN	June-2016	50	ET		UNNAMED	September-1924	75	H1
ANDREA	June-2013	55	TS		UNNAMED	September-1919	40	TS
DEBBY	June-2012	55	TS		UNNAMED	October-1916	50	TS
BERYL	May-2012	60	TS		UNNAMED	September-1914	60	TS
FAY	August-2008	60	TS		UNNAMED	September-1912	45	TS
ALBERTO	June-2006	60	TS		UNNAMED	July-1912	45	TS
TAMMY	October-2005	45	TS		UNNAMED	August-1911	50	TS
JEANNE	September-2004	105	H3		UNNAMED	June-1909	45	TS
FRANCES	August-2004	125	H4		UNNAMED	September-1907	45	TS
BONNIE	August-2004	55	TS		UNNAMED	June-1907	55	TS
GORDON	September-2000	70	H1		UNNAMED	October-1904	45	TS
GEORGES	September-1998	135	H4		UNNAMED	June-1902	50	TS
EARL	August-1998	85	H2		UNNAMED	September-1901	45	TS
JOSEPHINE	October-1996	60	TS		UNNAMED	June-1901	35	TS
JERRY	August-1995	35	TS		UNNAMED	October-1900	40	TS
ALLISON	June-1995	65	H1		UNNAMED	Jul 1899	85	H2
BERYL	August-1994	50	TS		UNNAMED	Aug 1898	70	H1
MARCO	October-1990	55	TS		UNNAMED	Oct 1894	105	H3
UNNAMED	August-1987	40	TS		UNNAMED	Jun 1893	65	H1
CHARLEY	August-1986	70	H1		UNNAMED	Sep 1888	50	TS
KATE	November-1985	105	H3		UNNAMED	Jun 1886	85	H2
UNNAMED	July-1980	25	TD		UNNAMED	Jun 1886	85	H2
UNNAMED	May-1976	45	TS		UNNAMED	Oct 1885	60	TS
AGNES	June-1972	75	H1		UNNAMED	Sep 1885	70	H1
ALPHA	May-1972	60	TS		UNNAMED	Sep 1885	80	H1
UNNAMED	October-1971	25	TD		UNNAMED	Aug 1885	50	TS
UNNAMED	August-1971	25	TD		UNNAMED	Oct 1882	120	H4
BECKY	July-1970	55	TS		UNNAMED	Sep 1880	70	H1
UNNAMED	July-1968	25	TD		UNNAMED	Aug 1880	90	H2
UNNAMED	June-1966	40	TS		UNNAMED	Oct 1878	70	H1
ALMA	June-1966	100	H3		UNNAMED	Oct 1877	50	TS
HILDA	September-1964	120	H4		UNNAMED	Sep 1877	100	H3
DORA	August-1964	115	H4		UNNAMED	Sep 1877	70	H1
BRENDA	July-1960	60	TS		UNNAMED	Sep 1875	50	TS

Name	Month / Year	Max Wind Speed	Max Category		Name	Month / Year	Max Wind Speed	Max Category
UNNAMED	June-1957	65	ET		UNNAMED	Sep 1873	70	H1
FLOSSY	September-1956	80	H1		UNNAMED	Jun 1873	40	TS
FLORENCE	September-1953	100	H3		UNNAMED	Sep 1871	70	H1
LOVE	October-1950	70	H1		UNNAMED	Aug 1871	100	H3
KING	October-1950	115	H4		UNNAMED	Aug 1871	100	H3
EASY	September-1950	105	H3		UNNAMED	Oct 1868	70	ET
UNNAMED	August-1949	115	H4		UNNAMED	Oct 1867	90	H2
UNNAMED	October-1947	90	H2		UNNAMED	Aug 1860	110	H3
UNNAMED	October-1947	50	TS		UNNAMED	Aug 1856	100	H3
UNNAMED	October-1941	105	H3		UNNAMED	Oct 1852	90	H2
UNNAMED	August-1939	65	H1		UNNAMED	Aug 1851	100	H3

C Vulnerability

Vulnerability to hurricane and tropical storm events can be defined as the extent to which people will experience harm and property will be damaged from the natural hazard. Jefferson County is located in the northern part of the Florida Peninsula region known as the "Big Bend" for the arc of the Gulf of Mexico shoreline where the panhandle meets the peninsula. Previous hurricane and tropical storm events have occurred countywide, and the county is very vulnerable to hurricane- and tropical-storm-force winds and heavy rains, compounded by the high concentration of mobile home residents.

As noted earlier, the level of development in the county has not been significantly increase since the last LMS plan. Due to this factor, the population is no more vulnerable to tropical storms or hurricanes than previously documented.

Since January 2000, Jefferson County has had 25 disaster declarations that have required individual assistance, public assistance, or both. Of which 18 of them were from hurricane and tropical storm events.

Year	Storm	Maximum Wind Gust	Maximum Rainfall	Impact Summary
2023	Hurricane Idalia	58 mph	5.52 in	Idalia brought hurricane-force winds to Jefferson County, knocking down trees and power lines. Thousands of residents in Monticello and the surrounding areas lost electricity.
2024	Hurricane Debby	35 mph	6.23 in	Widespread power outages and downed trees throughout Monticello. Recovery stations were established to provide residents with essential supplies, including water, ice, food, and tarps.
2024	Hurricane Helene	51 mph	5.10 in	Caused severe damage in the County. Approximately 60 to 70 homes were damaged, with about 20 identified as total losses. The storm resulted in widespread power outages and significant flooding.

D Probability

The probability for hurricanes and tropical storms is considered high (at least one occurrence every year). Although some years the county may not be impacted by a tropical cyclone, other years, like 2024, the county and city may be impacted by two.

E Extent

The worst-case scenario from a hurricane or tropical storm event would be a category 5 hurricane with winds of over 157 mph or higher, which could potentially cause catastrophic damage throughout the entire county. Mobile homes and 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 for weeks to possibly months. Most of the area will be uninhabitable for weeks or months. Although rare, a Category 5 hurricane could prove to be even more devastating to the county residents, structures, and infrastructure.

In recent years, Jefferson County has survived numerous tropical incidents. Notable events were Hurricanes Idalia, Debby, and Helene (Figure 3). Each storm caused extensive damage to the landscape and infrastructure of Jefferson County. The county has experienced several hurricanes and tropical storm events over the past 75 years, resulting in flooding from heavy rains, violent winds, powerful storm surges, and shoreline erosion.

F Impact

Jefferson County's residents, businesses, public facilities, and critical infrastructure are vulnerable to significant impacts from hurricanes and tropical storms in both of the jurisdictions. Although located mostly inland from the Gulf Coast, the county can still experience damaging winds, prolonged heavy rainfall, tornadoes, and widespread flooding from tropical systems moving across North Florida. Strong winds can down trees and power lines, damage roofs, outbuildings, and manufactured homes, and create long-duration power outages. Heavy rainfall can overwhelm drainage systems, flood roadways, isolate neighborhoods, and cause washouts or damage to bridges and transportation routes. In addition, tropical systems may generate tornadoes with little warning, creating localized but severe damage. Bay County suffered severe damage to the timber industry after Hurricane Michael in 2018. An unrealized collateral damage was the downed large timber still is an obstacle to safely fire wild fires in the area. The State of Florida does not have the fire fighting resources to combat wildfires in these areas. A similar situation could occur in Jefferson County due to its high level of timber throughout the county.

Historical disaster records and FEMA declarations show that Jefferson County has experienced impacts from multiple tropical storm and hurricane events, resulting in the need for individual assistance, public assistance, or both. These declarations demonstrate the county's continued exposure to storm-related losses affecting homes, businesses, agriculture, utilities, and government facilities. Recovery from these events can place significant financial strain on residents and local governments through debris removal, infrastructure repairs, emergency protective measures, and housing needs. As future storms continue to threaten the region, Jefferson County remains vulnerable to recurring hurricane impacts that require ongoing preparedness, mitigation, and resilient redevelopment efforts.

3.3.2 Thunderstorms/High Winds/Hailstorms

A Description

Thunderstorms are common weather hazards that can affect all areas of Jefferson County, particularly during the spring and summer months. These storms develop when warm, moist air rises rapidly and interacts with cooler air aloft, producing lightning, heavy rain, strong winds, and occasionally hail. Severe thunderstorms are capable of producing wind gusts in excess of 58 mph, large hail, frequent lightning, and isolated tornadoes.

High winds associated with thunderstorms can damage roofs, siding, trees, power lines, and other structures, while hail can break windows, dent vehicles, and damage crops and outdoor equipment. Heavy rainfall may also create localized flooding and hazardous driving conditions. Because thunderstorms can form quickly with little warning, they remain a frequent and significant hazard for Jefferson County.

Hail is a form of frozen precipitation made up of balls or irregular lumps of ice that form inside strong thunderstorms. It develops when raindrops are carried upward by powerful storm updrafts into extremely cold areas of the atmosphere, where they freeze and grow in layers of ice. Hail can range in size from small pellets to large stones and may cause damage to roofs, vehicles, windows, crops, and property when it falls to the ground.

B Historical Occurrences

In the State of Florida, summer thunderstorms are a natural occurrence and very common. In the past five years since the previous update of the LMS Plan, there were 42 thunderstorms. The additional information that makes this significant is that of those 42 storms, 17 generated reportable damage. None of these incidents caused injuries or deaths to humans or livestock.vThe NOAA Storm Event Database does not separate thunderstorm wind from wind events. This is because a thunderstorm can incorporate many other hazards such as lightning, tornadoes, wind, heavy rain, hail, and can cause flooding. The table below gives data for occurrences of Thunderstorm Winds which we can relate directly to Thunderstorms.

Table 4 Thunderstorm Events Since the Last LMS Update (2021-2025)[17]

	Date	Damage Value	Damage Description
1	2/15/2021	$3,000	Power lines down.
2	1/2/2022	$2,000	Power lines down.
3	5/30/2022	$2,000	Power lines down.
4	1/22/2023	$2,000	Power lines down.
5	6/4/2023	$2,000	Power lines down.
6	6/14/2023	$2,000	Power lines down.
7	6/17/2023	$5,000	Power lines down.
8	6/19/2023	$155,000	Severe damage to two homes.
9	9/7/2023	$2,000	Power lines down.

[17] https://www.ncei.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

10	12/10/2023	$3,000	Power lines down.
11	1/6/2024	$3,000	Strong winds blew debris into power lines, resulting in a power outage.
12	1/9/2024	$2,000	Power lines down.
13	8/2/2024	$2,000	Power lines down.
14	3/5/2025	$2,000	Power lines down.
15	3/16/2025	$2,000	Power lines down.
16	5/30/2025	$3,000	Power lines down.
17	7/11/2025	$2,000	Power lines down.

Table 11. Hail Events Since the Previous LMS Update (2021-2025) [17]

Date	Hail Size	Damage
April 6, 2022	1.0 in	No reported damage
June 12, 2023	1.0 in	No reported damage

C Vulnerability

Vulnerability to thunderstorms, high winds, and hailstorms is defined as the extent to which populations, structures, and critical infrastructure are exposed to damage from these hazards. Jefferson County is highly vulnerable to severe thunderstorms and wind events, which occur frequently throughout North Florida and often produce damaging winds, heavy rainfall, lightning, and occasional hail.

The county's vulnerability is influenced by its rural development pattern and housing stock. A substantial portion of residential structures consists of manufactured and mobile homes, which are more susceptible to wind damage due to their lighter construction and limited anchoring. Vulnerability increases with the age of structures, construction quality, maintenance condition, and proximity to the storm's strongest wind fields. Severe thunderstorm events also pose risks to utilities, transportation corridors, and emergency services due to downed trees, power lines, and localized flooding associated with heavy rainfall.

D Probability

The probability of thunderstorms and high-wind events in Jefferson County is high, with at least one damaging event expected each year. These events are common during Florida's convective storm season and are consistent with statewide climatological patterns. The county and city have experienced 123 thunderstorms in the last 25 years.

The probability of hailstorms is considered medium, with damaging hail events occurring less frequently than high wind events but remaining a recurring hazard, generally on a multi-year cycle. The County and City have experienced 13 hailstorm events in the last 25 years.

E Extent

Severe thunderstorm and high wind events in Jefferson County have historically produced wind speeds approaching 60 knots (approximately 69 miles per hour), which is sufficient to cause damage to roofs, siding, power infrastructure, and unanchored or lightly anchored structures.

Hail events, while less common, have produced hailstones up to 2.00 inches in diameter, capable of damaging roofing materials, vehicles, agricultural assets, and exposed infrastructure. These magnitudes are consistent with severe thunderstorm activity documented across the Florida Panhandle and Big Bend regions.

F Impact

Thunderstorms, high winds, and hail can cause localized but significant impacts throughout Jefferson County. Impacts include damage to residential and commercial structures, particularly manufactured housing, as well as disruptions to transportation, electrical service, water systems, and communications infrastructure.

The population of both jurisdictions is vulnerable to injuries and loss of life from lightning strikes, falling trees, flying debris, and vehicle accidents during severe thunderstorms. Property impacts may include roof damage, broken windows, damaged vehicles, downed power lines, and disruptions to roads and utilities caused by high winds or hail. Economic losses can result from business closures, repair costs, agricultural damage, and interruptions to daily commerce. Environmental impacts may include downed timber, erosion, and damage to crops or natural vegetation. Critical facilities such as fire stations, emergency response buildings, schools, and utility systems may experience power outages, structural damage, or temporary service disruptions.

The City of Monticello and surrounding unincorporated areas have experienced documented hail events within recent years, demonstrating the continued exposure of populated areas to this hazard. While hail events have typically been limited in scope, even small-scale incidents can result in property damage, such as cars, out buildings, mild crop damage, and some interruptions to power service.

Overall, thunderstorms and associated wind and hail impacts pose a recurring hazard in Jefferson County, contributing to recurring infrastructure damage, increased emergency response demands, and higher recovery costs. These events should be considered a priority hazard for mitigation strategies aimed at strengthening residential construction, protecting critical infrastructure, and improving community resilience.

The slow development of the County and City has minimal change to the impact and vulnerability to this hazard compared to the previous LMS plan update.

3.3.3 Flooding

A Historical Occurrence

Both Jefferson County and the City of Monticello maintain information on known flood problem areas from field reports and damage assessments. The City has mapped nuisance

and hazard/damage flooding areas throughout the incorporated area. Both City and County public works departments are responsible for addressing stormwater flooding issues, maintaining lists of flooded structures and properties. The Department of Public Works maintains the County's list.

Flooding occurs frequently along the creek and river systems, especially in the county's low-lying areas and near Wacissa and Aucilla. Any plans for development would not be allowed, as this entire area is designated as conservation on Jefferson County's Land Use Map.

Similarly, the two major river areas in the county, along the Aucilla River (located in the NE portion of the County and borders Madison and Taylor Counties) and the Wacissa River, are in conservation zones, and development is not allowed. Unincorporated Jefferson County is susceptible to riverine and coastal flooding, and the City of Monticello is more vulnerable to flooding from rain and ponding. Rainfall averages 55 inches per year. Although Jefferson County did experience record rainfall in 1994 (92.83 inches), no flood damage was reported from the heavy rainfall.

Localized flooding can occur from hurricanes, tropical storms, and severe thunderstorms that affect Jefferson County and the City of Monticello. Severe thunderstorms can occur both in the summer and the winter. Rainfall in Alabama and Georgia can also cause significant flooding problems in North Florida as experienced during tropical storms Alberto and Beryl in 1994. Tropical storms Helene (September 22, 2000), Allison (June 11-12, 2001), and Barry (August 5-6, 2001), and the infamous No Name Storm (March 2, 2002) in particular caused flooding.

The most recent storm events that caused flooding in the last ten years in Jefferson County and the City of Monticello were hurricanes Hermine, Michael, Sally, Idalia, Debby, and Helene. The major impacts of these storms included wind damage to trees, which caused significant power outages in many areas of the community, and various roads being flooded and impassable. Hurricane Idalia also caused flooding that closed Interstate 10 temporarily, but left no damage to the interstate. Non-hurricane related flooding since the last LMS update was both in 2022, March and August due to heavier-than-normal seasonal rains.

B Vulnerability

Jefferson County and the City of Monticello are vulnerable to flooding due to a combination of geographic, hydrologic, and development-related factors. The county is located in Florida's Big Bend region and features extensive riverine systems, low-lying terrain, and closed drainage basins that contribute to recurring flooding.

Unincorporated Jefferson County is primarily vulnerable to riverine and coastal flooding, particularly along the Aucilla River, Wacissa River, Beasley Creek, Raysor Creek, Ward Creek, and Wolf Creek. These waterways and surrounding floodplains have been identified in Flood Insurance Studies (FIS) as known flood hazard areas. Portions of these areas are designated for conservation, limiting future development; however, existing structures, roadways, and agricultural lands remain exposed.

Jefferson County may be regarded as more fortunate than other coastal counties in Florida with respect to storm damage and flooding. A small portion (six miles) of the county is exposed to the Gulf, and this section is low-lying marsh and wooded areas that are

uninhabitable with little access. It is owned by federal and state agencies that prohibit development other than recreational use.

The City of Monticello is more vulnerable to sheet flow and localized ponding resulting from intense rainfall events. Closed basins throughout the county exacerbate flooding conditions, as water cannot readily drain and may remain in low-lying areas for extended periods.

Structures most vulnerable to flooding include mobile homes, older housing stock, and properties served by septic systems, particularly those located within the 100-year and 500-year floodplains. Transportation corridors, including state and local roadways, and other critical infrastructure located in flood-prone areas, increase overall community vulnerability during flood events.

Jefferson County and the City of Monticello have a record of widespread flooding vulnerability, primarily driven by heavy rainfall and tropical events. Areas and features specifically vulnerable to flooding include:

- land parcels having at least a portion of their property in the 100-year floodplain
- Mobile homes and septic tanks in 100-year floodplains
- All structures and facilities within Special Flood Hazard Areas, Non-Special Flood Hazard Areas, and Undetermined-Risk Areas as identified on local FIRM maps
- Unrecorded subdivisions and all subdivisions built before 1991-92 Risk Assessment

Based on assessment of historical data, the extent and location of flood prone areas, is classified as a **Moderate risk** in Jefferson County and the City of Monticello.

C Probability

Flooding is highly likely in Jefferson County and the City of Monticello. Flood events occur at least annually, driven by heavy rainfall, tropical storms, hurricanes, and periodic riverine flooding. Seasonal rainfall patterns, combined with tropical cyclone activity, make flooding a recurring hazard throughout the county.

D Extent

Flooding in Jefferson County includes riverine flooding, coastal storm surge, and localized stormwater flooding. The extent of flooding varies by location, storm type, and rainfall duration.

The most significant documented riverine flooding occurred during the April 1973 flood, when the Aucilla River at Lamont reached a historical crest of approximately 59.47 feet, exceeding established flood stage levels. This event represents a worst-case riverine flooding scenario for the county.

Coastal flooding impacts are generally limited due to the county's short Gulf shoreline; however, storm surge events have caused flooding and erosion near the mouth of the Aucilla River. The most significant coastal flooding occurred during Hurricane Dennis (2005), which produced an estimated 7.5-foot storm surge, resulting in damage to multiple structures.

Stormwater flooding from intense rainfall is common throughout the county and the City of Monticello. A 100-year, 24-hour storm event represents the worst-case stormwater flooding scenario. Within FEMA Zone AE, flood depths may range from less than one foot to more than 20 feet, depending on location. Floodwater exceeding six inches above finished floor elevations can cause significant structural damage.

E Impact

More recent floods, caused by storm surges and extreme precipitation from the past three hurricanes (i.e., Idalia, Debby, and Helene), affected Interstate-10, closing it for a period, flooded parts of Monticello, and flooded various roads throughout the county. Lack of individuals and businesses carrying flood insurance could result in large uninsured losses due to rising waters.

A flood is an overflow of water that submerges land that is usually dry. Flooding can occur in either floodplains (low-lying lands around rivers and streams, lakes, and wetlands), or in other low-lying, poorly drained areas. Flooding in Florida is typically caused by heavy or prolonged rainfall from tropical storms and hurricanes. The Federal Emergency Management Agency (FEMA) estimates about

14.25 million acres, or 41 percent, of Florida is prone to flooding, which is the highest percentage of all 50 states. Heavy rainfall can be described locally as one or more inch per hour. Short, intense episodes can induce flooding as well as less-intense, longer-duration

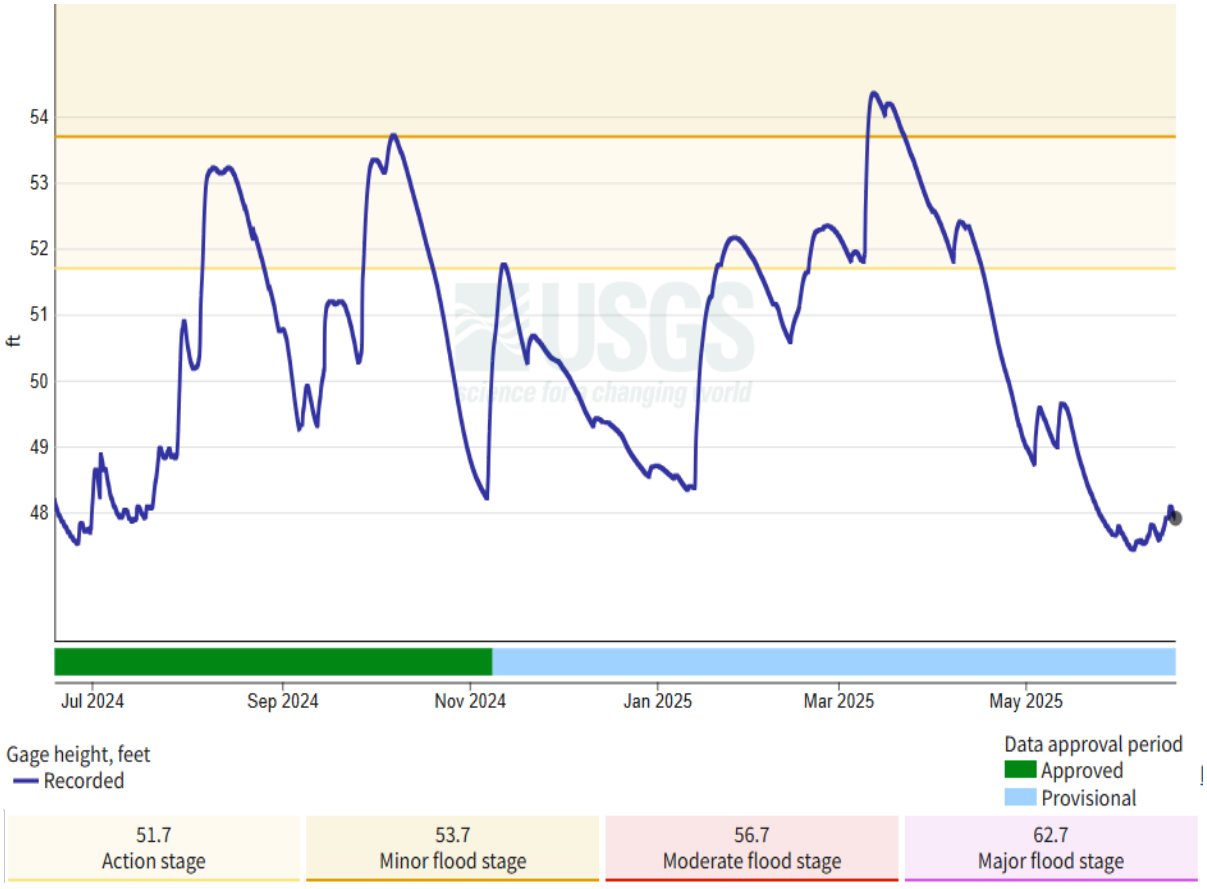


Figure 5 One year of River Levels at Aucilla River/Lamont (July 2024 - June 2025)

events.

Annual rainfall in Jefferson County averages about 55 inches. Rainfall is heaviest from June to September, accounting for about 44 percent of the yearly total.

The 100-year floodplain is the land that is predicted to flood during a 100-year storm, which has a 1% chance of occurring in any given year. The 100-year floodplain is also sometimes called the 1% annual chance floodplain or base flood. Areas within the 100-year floodplain may flood in much smaller storms as well. FEMA uses the 100-year floodplain to administer the federal flood insurance program and the City of Monticello and Jefferson County to regulate development.

Local flooding can vary widely based on variables such as soil composition, saturation, and slope; depth to aquifer; land use; location, type, size, and elevation of structures; depth, width, and peak discharge of floodways; presence of vegetation; size and type of watershed; and extent of impervious area within a watershed. Other variables include the length of a rain event, the amount of rainfall, and the frequency between storms.

The extent of local flooding and its probable and actual impacts varies widely and depends on the location of property or structures within identified flood-prone areas, special flood hazard areas, and other areas prone to flooding or damage from flooding. Mold is another top health concern. In the South, high temperatures and a damp environment can create mold if a home is abandoned for several days or more. Hygiene is also a public health issue as floodwaters can introduce harmful bacteria throughout the home from a variety of sources. Wading through water can also present an opportunity for injury and infection. For those with other conditions such as diabetes, a simple wound could create a deadly infection.

FEMA Flood Insurance Rate Map (FIRM) Zones

Flood zones are geographic areas that FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area. Table 12 below describes each FEMA FIRM zone. Possible flood hazards have been determined for all areas within Jefferson County.

The 100-year flood event, which has a one percent chance of occurring in any given year, is used as the base flood for the purpose of flood mitigation planning. The boundaries of the 100-year floodplain as designated by the FEMA Flood Insurance Rate Maps (FIRM).

Many areas around streams, rivers, lakes, and wetlands in both Jefferson County and the City of Monticello are susceptible to flooding. Closed basins occur throughout Jefferson County and play a large role in area flooding. Homes and other structures in many of the closed basins are built below the level where water can "pop-off" into another basin, making them more at risk for flooding.

There are 22 FEMA FIRMs for Jefferson County have 11 effective dates from 2014 and 11 from 2025. Both jurisdictions of Jefferson County have fully adopted the FEMA Flood Insurance Rate Maps (FIRMs) dated February 5, 2014 and April 23, 2025, which represent the most recent effective flood hazard mapping for the County.

Table 12. Description of FEMA FIRM Zones.

FIRM Zone	Explanation
A	An area inundated by 100-year flooding, for which no Base Flood Elevations have been established
AE	An area inundated by 100-year flooding, for which Base Flood Elevations (BFE) have been determined.
AH	An area inundated by 100-year flooding (usually an area of ponding), for which BFEs have been determined; flood depths range from 1 to 3 feet.
ANI	Area Not Included: An area that is located within a community or county that is not mapped on any published FIRM.
AO	An area inundated by 100-year flooding (usually sheet flow on sloping terrain), for which average depths have been determined; flood depths range from 1 to 3 feet.
D	An area of undetermined but possible flood hazards.
IN	Area in Special Flood Hazard Area (SFHA): This is an area inundated by 100-year flooding for which BFEs or velocity may have been determined. No distinctions are made between the different flood hazard zones that may be included within the SFHA
UNDES	Area of Undesignated Flood Hazard: A body of open water, such as a pond, lake ocean, etc., located within a community's jurisdictional limits that has no defined flood hazard.
V	An area inundated by 100-year flooding with velocity hazard (wave action); no BFEs have been determined.
VE	An area inundated by 100-year flooding with velocity hazard (wave action); BFEs have been determined.
X	An area that is determined to be outside the 100- and 500-year floodplains
X500	An area inundated by 500-year flooding; an area inundated by 100-year flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; or an area protected by levees from 100-year flooding.
100IC	Discharge Contained in Channel: An area where the 100-year flooding is contained within the channel banks and the channel is too narrow to show to scale. An arbitrary channel width of 3 meters is shown.

Participation in the National Flood Insurance Program

Flooding is one of the common natural hazards encountered in Jefferson County and the City of Monticello. Because of the risk it presents to local property owners and others, Jefferson County and the City of Monticello both participate in the National Flood Insurance Program (NFIP). To be eligible, a community must enforce sound floodplain management standards. Participation in the NFIP affords some protection for properties located within the 100-year floodplain.

Flood insurance is not typically provided in a homeowner's policy, and so it must be purchased separately. Depending on a home's location, flood insurance may be required as a condition of obtaining a mortgage. Because the ability to buy or rent a home is critical to the economic and social stability of most communities, the NFIP was developed by the federal

government to assist homeowners and renters with flood insurance, provided that their community participates in the program. FEMA administers the NFIP. The goals of this program include:

1. Decrease the risk of future flood losses,
2. Reduce the costs and adverse consequences of flooding,
3. Reduce the demands and expectations for disaster assistance after floods, and
4. Preserve and restore the natural and beneficial values of floodplains.

To qualify for subsidized federal flood insurance, a community must join the NFIP and agree to enforce sound floodplain management standards. The City of Monticello and Jefferson County participate with the National Flood Insurance Program. Jefferson County has 95 Flood Insurance Policies in force.

Table 13: Jefferson participation in the NFIP.[18]

Community Name	Policies In-Force	Insurance In-force	Written premiums In-force
Jefferson County	84	$17,674,100	46,060
City of Monticello	11	$2,045,800	4,862
Total:	95	$19,719,900	50,922

Community Rating System

The Community Rating System (CRS) is a federal incentive program for communities which exceed the minimum NFIP requirements. The incentive is up to 45% premium reductions for policyholders. The City of Monticello and Jefferson County both participate in the CRS. Jefferson County participates in the CRS. The county's current rating is 8, which translates into a 10 percent discount on flood insurance premiums for homeowners who purchase coverage for their structures. "Communities" are rated on a scale of 1-10 based on several criteria. The lower the number, the better the rating. One of the key elements in obtaining and maintaining a better rating (lowering the rating number) is providing homeowners with as much information as possible about protecting their properties from various dangers and natural disasters.

Floodplain Management and NFIP Compliance

Jefferson County participates in the NFIP and enforces floodplain management regulations within Special Flood Hazard Areas (SFHAs) through its local permitting and development review processes. Development activities within SFHAs are subject to review by the Floodplain Administrator to ensure compliance with applicable ordinances, including

[18] https://www.fema.gov/cis/FL.html

elevation, floodproofing, and construction standards. A system of checks and balances is maintained through coordination between the Floodplain Administrator, building and permitting staff, and other relevant departments to verify that proposed and completed development meets NFIP requirements. The County maintains records related to floodplain development, including permits, elevation certificates, and, where applicable, properties designated as open space or otherwise restricted from development for flood mitigation purposes. These records are reviewed and updated as needed to support ongoing compliance and monitoring.

Responsibility for implementing the commitments and requirements of the NFIP rests with the Floodplain Administrator with support from Emergency Management and Suwannee River Water Management District. This coordination ensures that floodplain management requirements are consistently applied across the County and, where applicable, within participating municipalities. Through this framework, Jefferson County works to maintain compliance with NFIP standards, reduce flood risk, and support responsible development within flood-prone areas.

Local governments have the most direct control in floodplain management through land use planning and regulation, land acquisition and management, and as sponsors for the flood insurance program administered by FEMA. Suwannee River Water Management District (SRWMD), Northwest Florida Water Management District (NWFWMD), and the Florida Department of Environmental Protection also regulate development activities in floodplains and flood-prone areas.

The Monticello – Jefferson County Comprehensive Plan has several policies that address development within flood-prone areas and floodplains. Both Jefferson County and the City of Monticello have adopted and continue to enforce floodplain management policies and regulations that help mitigate the effects of flooding on new and improved structures. Section 4.3 has a complete list of ordinances that both influence floodplain mitigation and have been influenced by the LMS Working Group.

Local land development codes developed to implement these policies address stormwater runoff rates (not volume) in open basins (those that drain eventually to the sea) and runoff rates and volume in closed basins (those that do not drain eventually to the sea). These codes prohibit post-development discharge rates from exceeding pre-development conditions for storms with recurrence frequencies up to a 25-year event, with variations in selected geographic areas and drainage basins.

Both Jefferson County and the City of Monticello currently have advanced stormwater management regulations and programs. Both jurisdictions charge a monthly stormwater fee for property owners, the proceeds of which help fund stormwater management capital improvements and maintenance programs. The local extra penny sales tax, which was extended for another 20 years in 2014, also funds a significant amount of public stormwater infrastructure.

Both Jefferson County and the City of Monticello will continue to participate in the NFIP program by continuing the following programs and actions:

- Restricting new development in flood-prone areas through maintaining existing floodplain management ordinances that meet minimum NFIP criteria

- Requiring elevation certificates for all new construction and substantial improvements when any portion of a property is located below the flood protection elevation.
- Mitigating existing development in these areas through land and structure purchases and removals
- Protecting, reinforcing, or relocating infrastructure and critical facilities
- Educating the public on where to find their FIRM maps
- Continuing participation in the CRS program by Jefferson County

F Substantial Damage and Substantial Improvement (SD/SI) Determinations

Jefferson County participates in the National Flood Insurance Program (NFIP) and administers floodplain management regulations in accordance with federal and state requirements. As part of these responsibilities, the County implements procedures for determining Substantial Damage and Substantial Improvement (SD/SI) for structures located within Special Flood Hazard Areas (SFHAs). A structure is considered substantially damaged or substantially improved when the cost of repair, reconstruction, rehabilitation, addition, or other improvement equals or exceeds 50 percent of the market value of the structure, consistent with NFIP regulations.

Following flood events or other disasters that may impact structures within the floodplain, damage assessment activities are conducted to evaluate the extent of impacts. The Floodplain Administrator, which in Jefferson County is the County Planning Official, is responsible for floodplain management, reviews damage assessment data, building permit applications, and supporting documentation to determine whether structures meet the threshold for SD/SI. These determinations are made prior to the issuance of permits for repair or reconstruction to ensure compliance with floodplain management requirements.

Coordination between the Division of Emergency Management and floodplain management staff is an integral part of the SD/SI process. Post-disaster damage information collected by emergency management personnel is shared with the Floodplain Administrator to support timely and accurate determinations. Property owners are notified when their structure has been determined to be substantially damaged or improved and are required to comply with applicable floodplain regulations, which may include elevation, floodproofing, or other mitigation measures.

Jefferson County maintains an ongoing working relationship between departments involved in emergency management, permitting, and floodplain administration to ensure consistent application of NFIP requirements and to support effective hazard mitigation. This coordinated approach helps reduce future flood risk, supports compliance with federal regulations, and promotes resilient redevelopment following hazard events.

Other Flood Mitigation Measures

The Flood Mitigation Assistance program (FMA) helps States and communities identify and implement measures to reduce or eliminate the long-term risk of flood damage to homes and other structures insurable under the National Flood Insurance Program (NFIP). Projects may include:

(1) Elevation, relocation or demolition of insured structures; acquisition of insured structures and property;
(2) Dry flood proofing of insured structures;
(3) Minor, localized structural projects that are not fundable by State or other Federal programs (e.g., erosion and drainage improvements)
(4) Beach nourishment activities, such as planting of dune grass. State agencies, participating NF communities or qualified local organizations

The Repetitive Loss (RL) and Severe Repetitive Loss (SRL) program provides funding to reduce or eliminate the long-term risk of flood damage to structures insured under the National Flood Insurance Program (NFIP) that have had one or more claim payments for flood damage. The long-term goals of RL and SRL are to reduce or eliminate NFIP claims through mitigation activities that are in the best interest of the National Flood Insurance Fund (NFIF). RFC funds may only mitigate structures that are located within a State or community that cannot meet the cost-share or management capacity requirements of the Flood Mitigation Assistance (FMA) program. Currently, neither the County nor the City of Monticello has any Repetitive Loss structures or Severe Repetitive Loss Structures.

Flooding Analysis

The 100-year flood event, which has a 1% chance of occurring in any given year, is used as the base for flood mitigation planning. The boundaries of the 100-year floodplain as designated by the FEMA Flood Insurance Rate Maps (FIRM), in Jefferson County and the City of Monticello, are indicated in the maps below.

These maps (Figures 6 and 7) note a distinction between Zones A and AE in the 100-year fl to c M nd fl on ir ck d ck w s, a of M

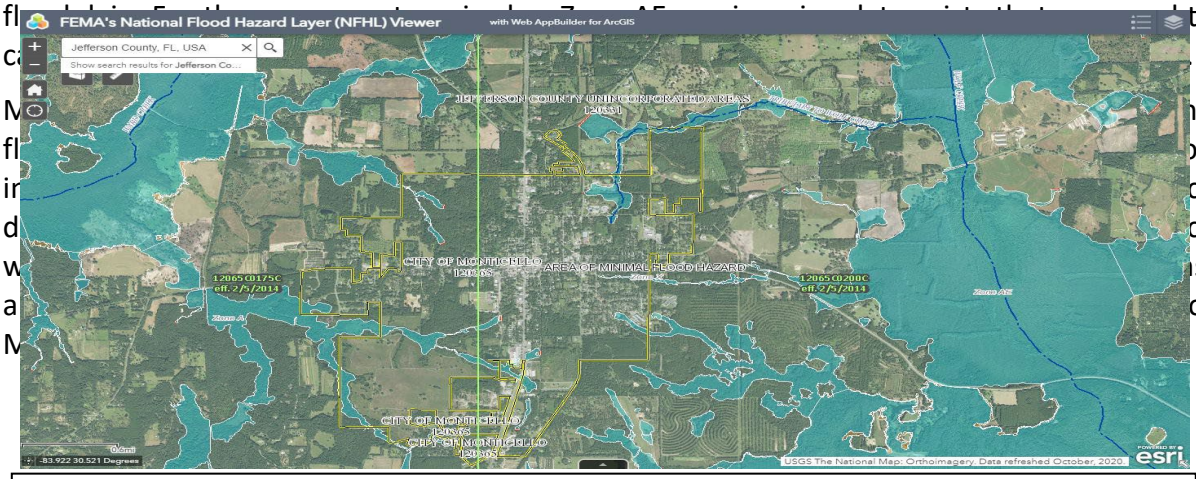


Figure 6. Zone AE Depth to Flood for the City of Monticello

Source: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent

Table 14. County Residents Living Within the 100 and 500 year Floodplains

County	100yr	500yr
Jefferson	11,547	1,891

Potential Losses

As of 2025, there are approximately 2,527 registered mobile homes, which represent an estimated 5,812 residents, accounting for approximately 36% of the total residents living in mobile homes in the county. In addition, due to the number of mobile homes, the older homes and the poorly constructed homes, and the infrastructure property damage could be extensive. Table 15 - summarizes the following details for the Floodplain Area (100-year) in Jefferson County on the types of structures located by occupancy type in the floodplain area and the value of the structures.

Table 15. Number of Structures Potentially Damaged Due to Flood in the 100-Year Floodplain

Property Type	Loss	Values
Residential	303	$77,265,000
Commercial	9	$3,142,000
Industrial	2	$2,754,000
Agriculture	240	$7,305,326
Other	11	$2,472,526
Total	**565**	**$92,938,852**

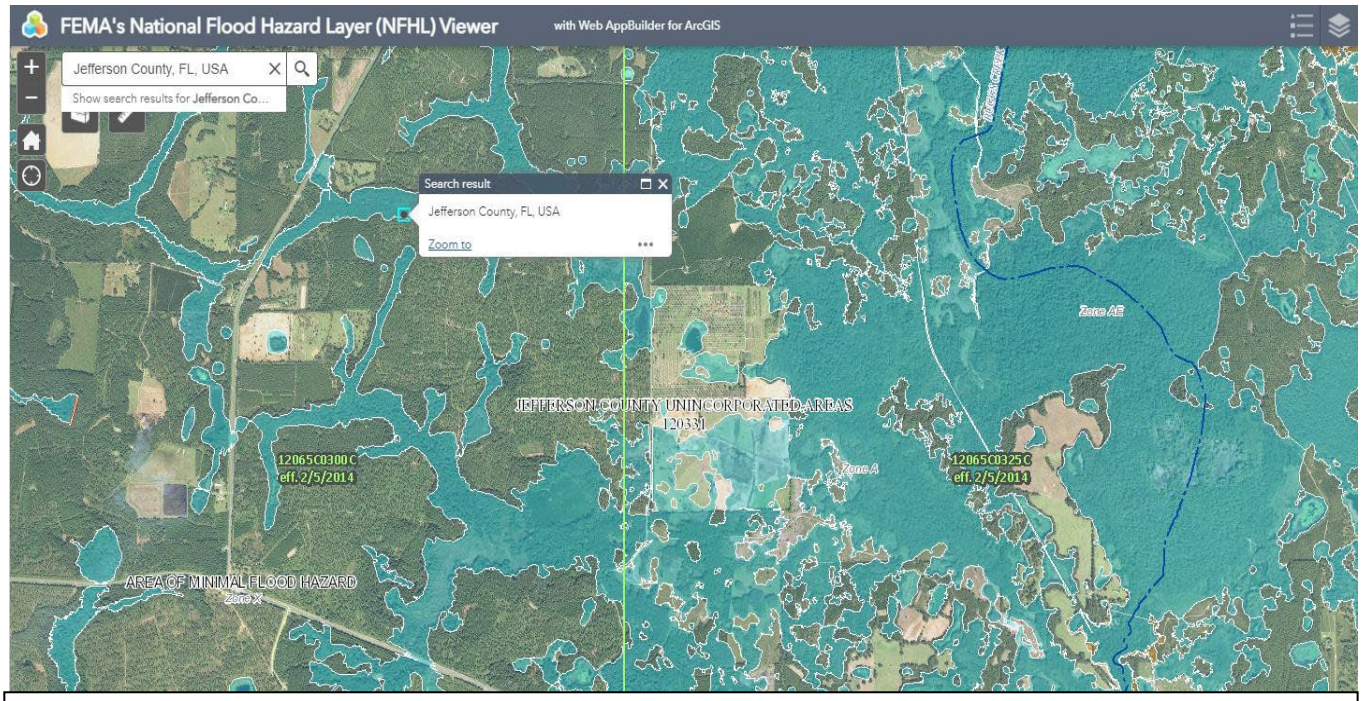


Figure 7. Zone AE Depth to Flood for Jefferson County

Source: https://hazardsfema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-84.28991290219145,30.4290264321472, -84.26914187557954,30.43827700956793

3.3.4 Storm Surge

A Description

Storm surge is one of the most dangerous hazards associated with tropical storms and hurricanes and poses a serious threat to coastal areas of Jefferson County. Storm surge is an abnormal rise of water generated by a storm's winds pushing seawater inland, often combined with normal tidal conditions. Depending on storm intensity, track, and local geography, surge waters can rise rapidly and flood coastal communities, roadways, and low-lying inland areas.

Storm surge can destroy buildings, erode shorelines, wash out roads, and cut off evacuation routes. Even a relatively weak storm can generate dangerous surge in vulnerable coastal locations. Because surge flooding often occurs before or during the strongest winds, residents in evacuation zones must act quickly when warnings are issued. Storm surge remains one of the leading causes of hurricane-related fatalities.

B Historical Occurrence

Storm surge occurs in the County about every two to three years. The primary catalyst for their occurrence is tropical storm and hurricane activity along the coast. The City of Monticello is not vulnerable to storm surge due to its location.

Table 16: Previous 10 Most Remarkable Storm Surges in Jefferson County (by highest crest)

Date	Surge Crest (feet)	Cause
10/10/2018	7.31	Hurricane Michael
9/16/2020	6.18	Hurricane Sally
9/2/2016	6.07	Hurricane Hermine
9/27/2024	5.86	Hurricane Helene
9/1/2008	5.45	Hurricane Gustav
9/15/2004	3.92	Hurricane Ivan
8/11/2011	3.73	Thunderstorms
4/26/2005	3.60	Thunderstorms
8/30/2023	3.36	Hurricane Idalia
6/6/2016	2.55	Thunderstorms

Source: https://water.noaa.gov/gauges/nutf1

C Vulnerability

Vulnerability to storm surge events can be defined as the extent to which people will experience harm and property will be damaged from the natural hazard. A small area of Jefferson County is situated on the coast of the Gulf of Mexico, comprising wilderness, sanctuary, and sand; therefore, the county's residents would be minimally vulnerable.

Additionally, the mouth of the Aucilla River is vulnerable and has been impacted by high waves, leading to erosion and damage to nearby buildings.

D Probability

The probability for storm surge is low to medium for the unincorporated coastal area in the county (at least one occurrence every 5 years to possibly every 3 years).

E Extent

The worst-case scenario for storm surge would have been from Hurricane Michael in 2018, which made landfall at Mexico Beach, in Gulf County, and was the first Category 5 hurricane to strike the contiguous United States since Andrew in 1992. This did not occur; however, Jefferson County suffered some impacts from Hurricanes Hermine (2016), Hurricane Idalia (2023), and Hurricane Helene (2024). These caused coastal flooding to various extents. The eyes of each of these hurricanes made landfall to the east of Jefferson County and therefore did not damage the coast to the extent possible if they were to make landfall to the west of the County.

F Impact

The impact from a storm surge Hurricane Michael in 2018 was 7.3 feet or higher at the mouth of the Aucilla River from high waves, resulting in erosion and damage to structures. The area of storm surge risk in the county is not in highly populated areas. Although Jefferson County is primarily inland, low-lying coastal and estuarine areas connected to the Gulf region may experience indirect impacts from storm surge associated with major tropical systems. Population impacts include threats to life and safety from rapidly rising water, evacuations,

limited access to medical care, and displacement of residents. Property damage can include flooded homes, damaged roads, bridges, utilities, and water intrusion into structures. Economic impacts may involve business interruption, tourism losses, agricultural impacts, and costly recovery efforts. Environmental effects can include shoreline erosion, saltwater intrusion, habitat damage, and contamination of wetlands or surface waters. Critical facilities such as water systems, transportation routes, emergency facilities, and utility infrastructure may be damaged or become inaccessible during surge-related flooding.

Jefferson County has what is considered a nature coast and it is not well developed. In addition, the coast is primarily wooded wetlands used for nature conservation and outdoor recreational activities such as, hunting and fishing. As collateral impact from storm surge could be the loss of recreational use due to debris and extended periods of flooding after the storm surge.

3.3.5 Tornado

A Description

Tornadoes are violent rotating columns of air extending from thunderstorms to the ground and can occur anywhere in Jefferson County. They are most common during severe thunderstorms and can also develop in outer rain bands of tropical storms and hurricanes. Tornadoes often form quickly, with little advance warning, and can vary greatly in size, strength, and duration.

Tornado winds can exceed 100 mph and are capable of destroying homes, overturning vehicles, uprooting trees, and damaging power infrastructure. Flying debris causes many tornado-related injuries and fatalities. Although most tornadoes are short-lived, they can cause severe localized damage in a matter of minutes. Tornado preparedness and rapid response to warnings are essential in Jefferson County.

B Historical Occurrence

March 2024: An EF-1 tornado, with estimated winds of 100 mph, touched down near Miccosukee in northeast Leon County and continued into Jefferson County. The tornado caused significant tree damage along its 3.43-mile path, but no injuries were reported.

On May 10, 2024, a series of tornadoes impacted the region. Tornado #1: An EF2 tornado with peak winds of 115 mph touched down at 6:38 AM EDT and remained on the ground until 7:03 AM EDT. It traveled a path of 19.58 miles with a maximum width of 900 yards. Tornado #2: Another EF2 tornado, also with peak winds of 115 mph, occurred from 6:50 AM to 7:14 AM EDT. This tornado had a path length of 27.22 miles and a maximum width of 1,400 yards. Tornado #3: An EF1 tornado with estimated peak winds of 110 mph touched down at 6:42 AM EDT and lasted until 7:13 AM EDT. It covered a path of 31.69 miles with a maximum width of 1,100 yards.

These tornadoes caused significant damage in Jefferson County, including downed trees and power lines, as well as structural damage to buildings. Fortunately, there were no reported injuries or fatalities.

Table 17 Tornado Data for Jefferson County from 1950 to June 2025

Date	F/EF-Scale	Length (Miles)	Maximum Width (Yards)	Fatalities	Injuries	Property Damage	Source*
5/19/1968	**F0**	0.1	10	0	0	n/a	**SD, SPC**
5/8/1971	**F1**	6.5	100	0	0	$2,500	**SD, SPC**
10/27/1972	**F1**	0.3	50	0	1	$25,000	**SD, SPC**
6/14/1975	**F1**	10	50	0	0	$25,000	**SD, SPC**
11/11/1979	**F1**	0.3	30	0	0	$25,000	**SD, SPC**
9/22/2000	**F0**	0.3	25	0	0	$50,000	**SD, SPC**
9/22/2000	**F0**	1	40	0	0	$40,000	**SD, SPC**
9/16/2004	**F0**	2	75	0	0	$25,000	**SD, SPC**
3/2/2007	**EF0**	2.3	50	0	0	$10,000	**SD, SPC**
8/23/2008	**EF0**	0.2	50	0	0	n/a	**SD, SPC**
10/8/2008	**EF1**	0.8	75	0	0	$10,000	**SD, SPC**
3/3/2019	**EF2**	3.76	700	0	0	$0	**SD, SPC**
3/31/2020	**EF1**	3.39	150	0	0	$2,000	**SD, SPC**
6/16/2023	**EF1**	6.37	100	0	0	$0	**SD, SPC**
2/4/2024	**EF0**	0.18	50	0	0	$0	**SD, SPC**
03/09/2024	**EF1**	0.67	355	0	0	$0	**SPC**
05/10/2024	**EF0**	2.98	1300	0	0	$0	**SPC**

C Vulnerability

Vulnerability to tornado events is the extent to which people will experience harm and property will be damaged from the natural hazard. Jefferson County is vulnerable to these wind disasters due to a high concentration of mobile-home residents, which accounts for approximately 32%. Additionally, the poorly constructed homes and damage to the infrastructure could be extensive. Out of the 67 Counties in Florida, Jefferson County is ranked 59 for tornado occurrences over the last 75 years (1950 - 2025).

D Probability

The probability of a tornado occurrence is medium for the entire county (at least one occurrence every 3 years).

E Extent

The worst-case scenario would be an F5 tornado that could be spawned from a waterspout with destructive winds of 261 - 318 miles per hour, complete devastation of homes leveled off foundations and swept away, businesses, churches, schools, and government buildings and other structures demolished, trees and power lines downed, the infrastructure destroyed, resulting in a catastrophic storm event.

F Impact

The most significant tornado in the Jefferson County area would be the debris blocking roads for emergency vehicles and downed power lines, causing outages. In addition, the high percentage of people living in mobile homes and substandard housing in the county could be displaced if the tornado were to cross through an area with a high concentration of these structures.

3.3.6 Wildfires

A Description

Wildfires are an ongoing hazard in Jefferson County, particularly during dry periods when vegetation becomes highly flammable. Wildfires may be caused by lightning, unattended campfires, debris burning, equipment use, or arson. Strong winds, low humidity, and drought conditions can cause fires to spread rapidly through forests, grasslands, and undeveloped areas.

Wildfires threaten homes, businesses, infrastructure, and natural resources. Smoke from fires can create dangerous air quality conditions and reduce visibility on roadways. In areas where development borders natural lands, known as the wildland-urban interface, the risk to life and property can be significant. Continued mitigation, defensible space, and public awareness are important to reducing wildfire impacts.

B Historical Occurrence

There have been very few wildfires since the last update to the LMS plan. Table 18 shows that in the recent five years only 48 wildfires have occurred and of those only three were caused by lightning. This means humans caused the rest and are mostly preventable. During times of high drought or extreme fire weather (i.e., red flag days or fire weather warning days), the Florida Forest Service will either limit the issuance of burn authorizations to only certified burners or shut down issuing burn authorizations altogether. This one factor greatly reduces the possibility of wildfires occurring, as nearly 45% of the wildfires over the last five years were due to escaped burns.

Table 18: Summary Wildfire Data for Jefferson County from July 2020 to June 2025.

Cause	Fires	Percent	Acres	Percent
Campfire				
Children				
Debris Burn*				
Debris Burn--Auth--Broadcast/Acreage	10	20.8	33.80	18.6
Debris Burn--Auth--Piles	5	10.4	3.85	2.1
Debris Burn--Auth--Yard Trash	4	8.3	5.00	2.7
Debris Burn—Non-authorized--Broadcast/Acreage				
Debris Burn—Non-authorized--Piles	1	2.1	6.00	3.3
Debris Burn—Non-authorized--Yard Trash	1	2.1	1.00	0.5

Cause	Fires	Percent	Acres	Percent
Equipment use*	3	6.3	5.60	3.1
Equipment--Agriculture				
Equipment--Logging				
Equipment--Recreation	1	2.1	1.00	0.5
Equipment--Transportation	2	4.2	1.10	0.6
Incendiary				
Lightning	3	6.3	22.10	12.1
Miscellaneous --Breakout				
Miscellaneous --Electric Fence				
Miscellaneous --Fireworks				
Miscellaneous --Power Lines	1	2.1	8.20	4.5
Miscellaneous --Structure				
Miscellaneous--Other	8	16.7	54.96	30.2
Railroad				
Smoking				
Unknown	9	18.8	39.50	21.7
Total	**48**		**182.11**	

C Vulnerability

Vulnerability to wildfire events can be defined as the extent to which people will experience harm and property will be damaged from the natural hazard. With the increased awareness of fire safety over the past several years within the state, the Florida Forest Service has implemented measures, such as prescribed burns, which decrease the threat of wildfires. In addition, they have a robust program of education to support landowners in the proper techniques on burning land and debris.

Details from the wildfires that swept throughout the state in 1998 burned many residences in areas where the urban environment intersected with large tracts of heavily wooded land. Some areas in Monticello have a similar urban-wildland interface and are vulnerable to this hazard. Typically, the county sees the most significant number of wildfires occurring during the months of April, May, and June.

The unincorporated areas of Jefferson County a particularly vulnerable due to the quantity of homes in the wildland-urban interface. As many people search for rural and secluded areas to live in, the often mistakenly build their homes, outbuildings, or store their equipment in areas dangerously close to woodlands where wildfire can jump from the forest to the homes, outbuildings, and equipment. Many leave no space for firefighters to defend their homes.

The City of Monticello, to a lesser extent, has the same vulnerability due to wildland-urban interface. The reason it is to a lesser extent is owed to the lack of flammable forest in and around the city. A wildfire in the forest area of the unincorporated Jefferson County would have a difficult time spreading into the city because of the change in vegetation types. This is not to say, no damage would be seen in the city; however, the damage would be considerably less than home in the unincorporated areas. Wildfire struggles to spread easily in oak forests, unlike pine forests which are naturally flammable.

D Probability

The probability for wildfire occurrences is medium to high for the entire county (at least one occurrence every 3 years to every year). Smaller, insignificant wildfires occur regularly in Jefferson County, which range from 1 to 15 acres annually. These fires rarely cause control difficulties or cause much damage. For the 2024 year, the Florida Forest Service reported nine fires in Jefferson County, totaling 19.55 acres. Most of these were caused by escaped yard trash. Jefferson County is about 37% forested, 208,000 acres. Of that acreage, 81,669 acres is forested with timber and pinelands. This forest type is most susceptible to the ignition of wildfires. As more people move into the county and yearn to live in the forest away from neighbors, they build their homes often too close for proper defensible space from wildfires. In addition, many people dangerously burn their yard trash irresponsibly and cause fires to escape their control and begin wildfires near their homes.

Years with dangerous, catastrophic wildfires are very rare, but they are possible when mixed with other weather factors. Factors such as hard freezes kill vegetation and make more dead, dried vegetation available for fire's consumption. Periods of extreme drought or prolonged periods of excessive heat will increase the likelihood of wildfire ignition and make them difficult to control. Overtime, due to climatic changes, the county will likely see more extreme wildfire behavior while at the same time see more wet years. The times between major wildfire events will increase, while at the same time, the magnitude of the fires will likely increase, according to Florida Forest Service resources.

E Extent

The extent of wildfires could potentially be severe for the entire county. Based on the data from the Florida Forest Service wildfires for the past 15 years, the county recognizes that there could be at least 2,000+acres burned over the next 15 years. Approximately 45% of the wildfires that occurred in the county were debris burns (authorized and unauthorized) in the wildfire risk assessment map. The City of Monticello could be affected minimally in a direct manner from some wildland-urban interface, but the majority of the city does not contain a type of vegetation that is highly conducive to carrying extreme wildfires.

F Impact

As the County is further fragmented by the division of larger tracts of land through development, more and more people are moving to the county resulting in more clearing of land. In addition, this not only increases the amount of wildland-urban interface, this also increases the amount of people starting fires to clear their land. The Jefferson County community, including its residents, structures, and infrastructure, could suffer from a wildfire event. The future impact of wildfire occurrences can be evaluated to determine what the county could expect in the future. The State has been impacted by significant wildfires over the last 35 years, resulting in poor air quality, residential evacuations, and structural damage. Wildfires can cause breathing issues in those with impaired lung capacity, the very young, or the elderly. Air Quality Indices over 100 can begin to cause breathing issues for vulnerable populations, as per AirNow.gov.

Wildfires pose a risk to Jefferson County's population through smoke inhalation, burns, evacuations, and threats to life in rapidly spreading fire conditions. Property impacts can include destruction of homes, businesses, agricultural structures, fencing, timber resources,

and utility infrastructure, particularly in areas near forests or undeveloped lands. Economic losses may result from firefighting costs, business interruptions, agricultural damage, timber loss, reduced tourism, and temporary job disruptions. Although fire burned timber can be harvested and utilized for a limited number of products, it is often not harvested due to the poor quality, lack of value, cost to harvest, and difficulty in transporting. The timber typically stays standing for a number of years creating a beetle infestation hazard and a continued risk to burn again in the future. Environmental impacts often include loss of vegetation, wildlife habitat destruction, degraded air quality, and soil erosion after a fire. Critical facilities such as communication towers, power systems, transportation corridors, and emergency response facilities may be threatened or disrupted by wildfire activity.

3.3.7 Drought/ Heat Wave

A Description

Drought and extreme heat can significantly impact Jefferson County. Drought occurs when an extended period of below-normal rainfall leads to water shortages, declining groundwater levels, stressed vegetation, and increased wildfire risk. Agricultural operations, landscaping, and water supplies may all be affected during prolonged dry conditions.

Heat waves are extended periods of unusually high temperatures, often combined with high humidity, that can create dangerous conditions for residents, workers, and vulnerable populations. Extreme heat can lead to dehydration, heat exhaustion, and heat stroke, particularly for the elderly, children, outdoor workers, and those without access to cooling. As temperatures rise and drought conditions intensify, these hazards can place added stress on public health and local resources.

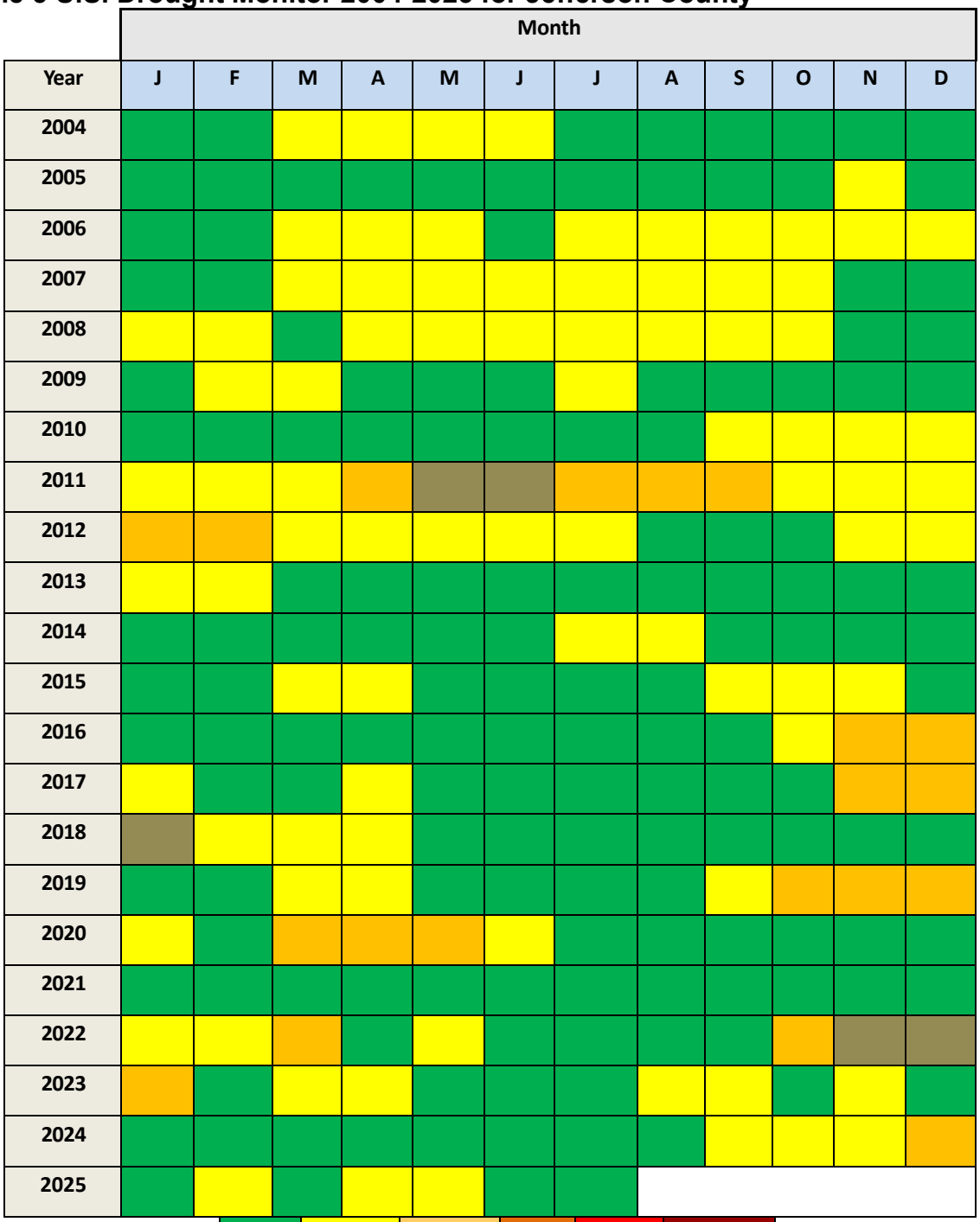
B Historical Occurrence

As stated by the USGS... “Lower than normal precipitation caused a severe statewide drought in Florida from 1998 to 2002. Based on precipitation and streamflow records dating back to the early 1900s, the drought was one of the worst ever to affect the State. In terms of severity, this drought was comparable to the drought of 1949-1975 in duration and had record-setting low flows in several basins. The drought was particularly severe over the 5-year period in the northwest, which included Jefferson County, where rainfall deficits ranged from 38 to 40 inches below normal. Within these regions, the drought caused record-low stream flows in several river basins, increased freshwater withdrawal, sand created hazardous conditions ripe for wildfires, and even the draining of lakes."

Droughts have occurred as recently as 2000 and again in 2004, 2006, 2007, 2008, 2011, 2012, 2019, 2020 and 2022. Many residents in unincorporated areas use deep wells as a water source and thus are only affected by long-term drought. Rural residents who use shallow wells may be more affected. In addition, severe droughts may have an adverse effect on the county’s wetlands and exotic flora species.

The following chart is a summary by month of the drought conditions in Jefferson County, beginning in 2004 – 2025. The drought index is classified by an alphanumeric system associated with a severity adjective, seen below the drought table.

Table 5 U.S. Drought Monitor 2004-2025 for Jefferson County



Source: http://droughtmonitor.unl.edu/MapsAndData/DataTables.aspx

In August of 2023, the County experienced 11 days of heat indices hovering at 113°F. There were no reported injuries, deaths, damages to infrastructure, or crops. However, with the increase in climate change, this is potentially a situation that could arise in the future more frequently. *The highest recorded temperature in Monticello, Florida,* was *109°F* on June 29, 1931, the hottest temperature recorded in Florida, although the relative humidity data was not available. The county is located in a humid subtropical climate zone, and at the time, the humidity was probably high. Given that the average relative humidity for June in Monticello is approximately 91%, the actual humidity level was likely around that percentage point or possibly higher. An example of what the Heat Index might have been for this record temperature of 109.4°F, if the RH were only 40%, the Heat Index would have been 136°F based on the Heat Index Chart.

C Vulnerability:

The vulnerability to drought and heat wave events can be defined as to the extent to which people will experience harm and property will be damaged from the natural hazard. During the onset of a drought, which can occur about once in every three years in a given area, it can result in elevated fire risk and decreased crop growth, which are the primary impacts to nature, while heat exhaustion and other heat-related illnesses are possible among vulnerable children, the sick, and the elderly.

D Probability:

The probability of drought or heat wave occurrences is high for the entire county (at least one occurrence every year).

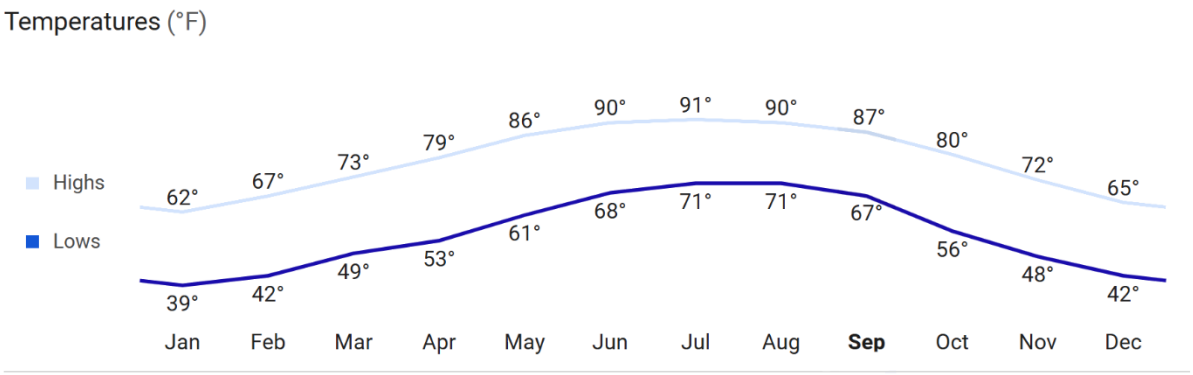
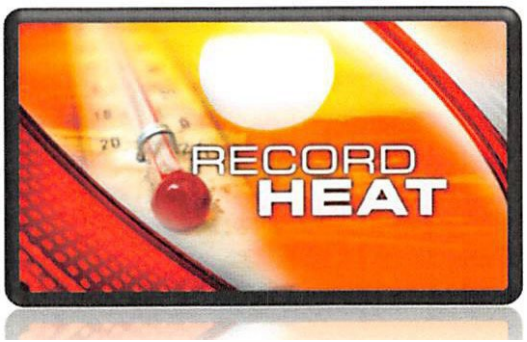


Figure 5 Average monthly high and low temperatures for Jefferson County.

Source: National Weather Service

E Extent:



The extent of drought impacts can range from minor short-term water stress to severe long-duration shortages that affect farming operations, livestock, landscaping, and groundwater supplies. Crops may experience reduced yields, pasture conditions may deteriorate, and increased irrigation demands can place pressure on water resources. Private wells in

rural areas may become stressed during prolonged drought conditions, and wildfire risk typically increases as vegetation dries out. Natural systems such as wetlands, ponds, and streams may also decline, affecting wildlife habitat and water quality.

Heat waves can affect the entire county and may create dangerous public health conditions, particularly for elderly residents, young children, outdoor workers, and individuals without reliable air conditioning. Extended periods of high temperatures and humidity can lead to heat exhaustion, heat stroke, dehydration, and increased medical emergencies. Demand for electricity often rises sharply during heat events due to cooling needs, creating stress on utility systems and increasing the potential for outages. Transportation infrastructure, including roads and pavement, may also be affected by prolonged extreme heat.

If drought and heat wave conditions occur together, impacts can become more severe and widespread. Agricultural losses, wildfire potential, water supply concerns, and health risks may all increase at the same time, placing added strain on emergency services and local resources. While these hazards may not produce the immediate destruction associated with hurricanes or tornadoes, their long duration and countywide reach make drought and heat waves significant threats to Jefferson County that require continued monitoring, preparedness, and mitigation planning.

F Impact:

Drought occurrences are a prolonged period where there is a precipitation deficit from normal values. The duration of below normal precipitation amounts and their impact can affect Jefferson County's water supply, present fire danger levels, and, as noted, drought could have a significant impact on the agricultural industry.

Jefferson County does have heat-related incidents (HRI) and the effects could be extensive for the poor, the elderly, the sick, and the children in the county. According to the Department of Health – Jefferson County, data related to emergency department incidents for HRI is not recorded.

3.3.8 Winter Storms/Freezing Temperature

A Description

A winter storm is a meteorological event characterized by the combination of cold air, atmospheric moisture, and precipitation occurring at or below freezing temperatures. Winter storms can produce a variety of hazardous conditions, including snow, sleet, freezing rain, ice accumulation, and strong winds, depending on vertical temperature profiles within the atmosphere. These systems are commonly associated with frontal boundaries, low-pressure systems, or Arctic air intrusions that introduce significantly colder air masses into a region. In the southeastern United States, winter storms are less frequent but can still create substantial impacts due to limited snow and ice removal infrastructure and reduced public acclimation to frozen precipitation events. Even minor winter storm events may result in transportation disruptions, utility outages, agricultural damage, and increased risks to public safety and critical infrastructure.

Freezing temperatures occur when ambient air temperatures fall to 32°F (0°C) or below, allowing moisture on surfaces or within the ground to freeze. These conditions are typically associated with strong cold fronts, radiational cooling during clear nighttime conditions, or the intrusion of Arctic air masses into a region. Prolonged or repeated freezing temperature events can adversely affect agriculture, vegetation, water infrastructure, and temperature-sensitive equipment. In areas unaccustomed to extended cold weather, freezing temperatures may also increase the likelihood of burst pipes, elevated utility demand, hazardous roadway conditions, and cold-related health concerns. Although severe freezes are relatively infrequent in North Florida, periodic freezing temperature events can still produce measurable economic, environmental, and public safety impacts within Jefferson County.

B Historical Occurrence

The record low temperature recorded for Jefferson County was 3 °F in January 1924, and then 4 °F in January 1985. In addition, from 1950 to June 2025, there have been 60 freezing-temperature events in January, with temperatures below freezing (32°F or lower), according to Weather Warehouse data. In addition, both 2014 and 2018 saw incidents of severe winter weather in the County and City.

During January 21 to 22, 2025, a historic winter storm affected the U.S. Gulf Coast, stretching from Texas to the Florida Panhandle. The highest snowfall amounts reported in Florida were up to 10 inches measured in Escambia County and near Jay in northern Santa Rosa County. Further east, a sharp gradient of snow to a wintry mix of sleet and snow formed. Jefferson County received one and a half inches of snow in some western areas, but mostly received about one half to one inch of snow. It began with mostly sleet on the night of January 21 and turning over to snow on the morning of January 22. Jefferson County Sheriff's Office reported some minor accidents due to weather conditions. Some power outages were reported but nothing which lasted for extended periods of time. Everything in the county was back up and running by the end of the day January 22.

C Vulnerability

The vulnerability to winter storms and freezing temperature events can be defined as the extent to which people will experience harm and property will be damaged from the natural hazard. A severe winter storm or freeze can have a substantial impact on Jefferson County's communities, agricultural industry, utilities, transportation systems, and telecommunications, and possibly result in loss of life due to accidents or hypothermia.

D Probability

The probability of winter storm events is medium for the entire county (at least one occurrence every 3 years). The probability of freezing temperature events is high for the entire county (at least one occurrence every year). However, the freezing temperature would only last a short period, for one to two days.

E Extent

Extreme cold and winter weather events, while infrequent in Jefferson County, have demonstrated the potential to reach damaging and disruptive levels. Historical climate records indicate that the county has experienced record-low temperatures of 3°F in January

1924 and 4°F in January 1985, reflecting the potential severity of cold-weather impacts under extreme conditions. In addition, Weather Warehouse data indicate that between 1950 and June 2025, Jefferson County experienced 60 freezing temperature events in January, defined as temperatures at or below 32°F. These events underscore that freezing conditions, while episodic, are a recurring hazard that can impact infrastructure, agriculture, and vulnerable populations.

Recent events further illustrate the geographic reach and magnitude that winter weather can achieve across North Florida and the broader region. From January 21–22, 2025, a historic winter storm impacted the U.S. Gulf Coast from Texas through the Florida Panhandle. Snowfall totals reached unprecedented levels for Florida. While snowfall amounts diminished moving eastward, measurable winter precipitation was still observed across the Panhandle and North Florida, demonstrating a sharp gradient from heavy snow to sleet and mixed precipitation.

Within the eastern Panhandle and Big Bend region, winter precipitation totals remained notable by regional standards. Marianna reported 5 inches of snow, with 3.5 inches recorded near Panama City. Tallahassee documented 1.9 inches, beginning as sleet before transitioning to snow. Although Jefferson County did not experience the highest accumulations, trace snowfall was observed as far east as Northeast Florida, confirming that winter storm impacts can extend well beyond the western Panhandle. This event highlights the potential extent of winter weather hazards to affect large portions of Florida simultaneously, including areas unaccustomed to prolonged freezing temperatures, snow, and ice, which can exacerbate impacts due to limited local experience and infrastructure preparedness.

F Impact

Winter storms and freezing temperatures can have a potentially destructive impact on the county's residents, agriculture, and infrastructure. Winter storms can impede visibility, affecting driving conditions, and can affect communications, electricity, or other services. The risks to crops, vegetation, trees, and the general population are higher during these months than the rest of the year.

According to the USDA Census of Agriculture, Jefferson County agriculture produces hay/haylage, nursery stock crops, pecans, soybeans, and cotton as some of its top-producing crops in the county. Although these crops are not all super sensitive to low temperatures, they are, however, subject to damage from extreme freezing winds, ice forming on branches or plants causing breakage, or extended periods of time exposed to snow. This could have an economic impact on the county.

Various data sources, like DataUSA.com and Florida Insurance Statistics, reveal that somewhere between 10.4% and 14% of the residents in the county “were living in severe housing problems”. Some of these residences may have insufficient electricity, dilapidated roofs, inadequate insulation, or structurally substandard construction. Situations such as this could expose this population to extreme temperatures.

3.3.9 Disease and Pandemic Outbreaks

A Historical Occurrence

Disease outbreaks have occurred periodically in Jefferson County and across Florida, with impacts varying by disease type, severity, and duration. A disease outbreak is generally defined as the occurrence of disease cases in excess of what is normally expected within a community or region during a given time period, as described by WebMD. Outbreaks may be localized, regional, or widespread, and in some cases even a single case of a contagious disease may be considered an outbreak if the disease is novel, previously eliminated, or unknown within the community.

The most significant recent public health emergency affecting Jefferson County was the global outbreak of Coronavirus Disease 2019 (COVID-19), caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Beginning in March 2020, COVID-19 resulted in widespread illness and mortality across Florida and the United States. The World Health Organization formally declared the pandemic ended in May 2023. During the period from 2020 through 2023, Jefferson County recorded COVID-19–related deaths each year, reflecting sustained public health impacts.

Table 20: Age-adjusted Deaths From COVID-19 (Vital Statistics), Rate Per 100,000 Population

	Jefferson		Florida	
Data Year	Count	Rate	Count	Rate
2023	2	8.3	3,645	9.9
2022	10	45.1	12,158	35.8
2021	32	134.1	34,490	108.8
2020	13	50.5	19,150	57.3

B Vulnerability

Jefferson County is vulnerable to disease outbreaks due to a combination of demographic, healthcare access, and operational factors. Populations at increased risk include older adults, individuals with underlying medical conditions, and residents with limited access to healthcare services. Rural characteristics of the county may further complicate access to timely medical care, testing, and treatment during large-scale outbreaks.

Local response agencies and healthcare providers may also experience operational vulnerability during epidemics or pandemics. Widespread illness among responders and healthcare staff can reduce workforce availability, while surges in patient volume can strain medical facilities, emergency medical services, and public health operations. These conditions can impair the county's ability to maintain routine services while simultaneously responding to increased public health demands.

C Probability

The probability of disease outbreaks occurring in Jefferson County is considered moderate on an annual basis, as communicable diseases routinely circulate at low levels within the

population. Seasonal illnesses such as influenza, as well as sporadic outbreaks of reportable diseases, are expected to occur periodically.

The probability of a large-scale epidemic or pandemic is considered low but consequential. While such events are rare, recent experience with COVID-19 demonstrates that novel infectious diseases can emerge rapidly and spread widely, including into rural communities. Global travel, population movement, and emerging pathogens continue to present an ongoing risk for future outbreaks.

D Extent

The extent of disease outbreaks affecting Jefferson County can range from isolated cases within a small population group to widespread community transmission lasting months or years. During the COVID-19 pandemic, impacts extended across all age groups and geographic areas of the county. Age-adjusted death rates in Jefferson County during peak pandemic years exceeded 130 deaths per 100,000 population in 2021, illustrating the potential severity of impacts during major public health emergencies.

Disease outbreaks may extend beyond county boundaries and occur simultaneously across regions, states, or nations. Such widespread events can overwhelm local response capacity, disrupt supply chains, and require sustained coordination with regional and state partners.

E Impact

Disease outbreaks can have significant impacts on public health, emergency response capabilities, and community functioning in Jefferson County. Impacts may include illness and loss of life, increased demand for medical and public health services, and reduced availability of emergency response personnel due to illness or quarantine. Schools, businesses, and government operations may also be disrupted, affecting economic stability and essential services.

Effective disease surveillance and reporting play a critical role in mitigating impacts. Effective August 2021, healthcare practitioners in Jefferson County are required to report specific diseases and conditions (Table 21) to the Jefferson County Department of Health, in coordination with the Florida Department of Health. Enhanced reporting requirements improve early detection of outbreaks and support timely public health interventions, reducing the potential severity and duration of future epidemics or pandemics.

Table 21: Reportable Diseases/Conditions In Florida

Per Rule 64D-3.029, Florida Administrative Code, promulgated August 18, 2021

! **Report immediately 24/7 by phone upon initial suspicion or laboratory test order**
☎ **Report immediately 24/7 by phone**
• Report next business day
+ Other reporting timeframe

! Outbreaks of any disease, any case, cluster of cases, or exposure to an infectious or non-infectious disease, condition, or agent found in the general community or any defined setting (e.g., hospital, school, other institution) not listed that is of urgent public health significance	! Influenza A, novel or pandemic strains ☎ Influenza-associated pediatric mortality in children <18 years old • Lead poisoning (blood lead level ≥5 µg/dL)
+ Acquired immune deficiency syndrome (AIDS)	• Legionellosis
☎ Amebic encephalitis	• Leptospirosis

! Anthrax	☎ Listeriosis
• Arsenic poisoning	• Lyme disease
! Arboviral diseases not otherwise listed	• Lymphogranuloma venereum (LGV)
• Babesiosis	• Malaria
! Botulism, foodborne, wound, and unspecified	! Measles (rubeola)
• Botulism, infant	! Melioidosis
! Brucellosis	• Meningitis, bacterial or mycotic
• California serogroup virus disease	! Meningococcal disease
• Campylobacteriosis	• Mercury poisoning
+ Cancer, excluding non-melanoma skin cancer and including benign and borderline intracranial and CNS tumors	+ Neonatal abstinence syndrome (NAS) • Mumps
• Carbon monoxide poisoning	☎ Neurotoxic shellfish poisoning
☎ Coronavirus disease (COVID-19)	☎ Paratyphoid fever (*Salmonella* serotypes A, B, & C)
• Chancroid	☎ Pertussis
• Chikungunya fever	• Pesticide-related illness and injury, acute
☎ Chikungunya fever, locally acquired	! Plague
• Chlamydia	! Poliomyelitis
! Cholera (*Vibrio cholerae* type O1)	• Psittacosis (ornithosis)
• Ciguatera fish poisoning	• Q Fever
+ Congenital anomalies	☎ Rabies, animal or human
• Conjunctivitis in neonates <14 days old	! Rabies, possible exposure
• Creutzfeldt-Jakob disease (CJD)	! Ricin toxin poisoning
• Cryptosporidiosis	• Rocky Mountain spotted fever and other spotted fever rickettsioses
• Cyclosporiasis	! Rubella
! Dengue fever	• St. Louis encephalitis
! Diphtheria	• Salmonellosis
• Eastern equine encephalitis	• Saxitoxin poisoning (paralytic shellfish poisoning)
• Ehrlichiosis/anaplasmosis	! Severe acute respiratory disease syndrome associated with coronavirus infection
• *Escherichia coli* infection, Shiga toxin-producing	• Shigellosis
• Giardiasis, acute	! Smallpox
! Glanders	☎ Staphylococcal enterotoxin B poisoning
• Gonorrhea • Granuloma inguinale	☎ *Staphylococcus aureus* infection, intermediate or full resistance to vancomycin (VISA, VRSA)
! *Haemophilus influenzae* invasive disease in children <5 y.o.	• *Streptococcus pneumoniae* invasive disease in children <6 years old
• Hansen's disease (leprosy)	• Syphilis ☎ 5. Syphilis in pregnant women and neonates
☎ 6. Hantavirus infection	• Tetanus
☎ Hemolytic uremic syndrome (HUS)	• Trichinellosis (trichinosis)
☎ Hepatitis A	• Tuberculosis (TB)
Hepatitis B, C, D, E, and G	! Tularemia
• Hepatitis B surface antigen in pregnant women and children <2 years old	☎ Typhoid fever (*Salmonella* serotype Typhi)
☎ 7. Herpes B virus, possible exposure	! Typhus fever, epidemic ! Vaccinia disease
• Herpes simplex virus (HSV) in infants	• Varicella (chickenpox)

<60 days old with disseminated infection and liver involvement; encephalitis; and infections limited to skin, eyes, and mouth; anogenital HSV in children <12 years old	
+ Human immunodeficiency virus (HIV) infection	! Venezuelan equine encephalitis
HIV-exposed infants <18 months old born to an HIV-infected woman	
• Human papillomavirus (HPV)- associated laryngeal papillomas or recurrent respiratory papillomatosis in children <6 years old; anogenital papillomas in children ≤12 years old	

3.3.10 Mass Migration

A Previous Occurrences

Jefferson County has **no documented history** of mass migration events or civil disobedience incidents. Based on historical trends and regional experience, the county does not anticipate such events under normal conditions. However, the absence of prior occurrence does not eliminate the possibility of future incidents driven by external factors such as regional disasters, national emergencies, or federal policy actions occurring outside the county's jurisdiction.

B Vulnerability

Jefferson County's vulnerability to mass migration events is considered **Low**, reflecting a lower-than-average likelihood of experiencing direct or recurring impacts. However, should such an event occur, vulnerabilities would include limited capacity within retail outlets, medical facilities, public shelters, and overnight accommodations. The county's constrained availability of temporary housing, combined with limited food, water, and medical supply distribution infrastructure, could result in short-term strain on local systems, particularly within the City of Monticello.

C Probability

The probability of a mass migration incident occurring in Jefferson County is assessed as Low, defined as at least one occurrence every ten years or less. Given the county's limited population base, rural character, and constrained housing capacity, large populations would be more likely to continue toward nearby urban centers with greater resources, including Tallahassee, Gainesville, or Jacksonville. As a result, Jefferson County is more likely to experience short-term transit impacts rather than sustained population displacement.

D Extent

Should a mass migration incident occur in Jefferson County, population movement would likely concentrate in the Monticello area, which serves as the county's primary retail, service, and governmental hub. Monticello is also the location of designated public shelter facilities that could be considered for activation during an emergency. Due to the county's limited transportation infrastructure and rural road network, migrants would likely transit through the county rather than remain for extended periods, using Monticello primarily as a temporary stop for essential goods, services, or shelter.

E Impact

The potential impact of a mass migration incident is assessed as Low, but could include increased demand on law enforcement, emergency medical services, and public safety agencies. Additional impacts may involve increased operational costs, potential civil unrest, and short-term stress on local detention and incarceration systems. In the event of federally driven migration activity, the county could also incur unreimbursed expenditures for coordination or response activities with U.S. Immigration and Customs Enforcement or other federal partners.

The Jefferson County Local Mitigation Strategy Committee, in coordination with the county's emergency management program, will continue to evaluate applicable methodologies, programs, and best practices from the Florida Division of Emergency Management, Federal Emergency Management Agency, and the U.S. Department of Homeland Security. This effort will support the identification of response, recovery, mitigation, and resiliency strategies related to population movement, evacuation, and sheltering. Outcomes from this process will be considered for incorporation into future updates of the Local Mitigation Strategy and Comprehensive Emergency Management Plan, including the identification of relevant multi-hazard mitigation projects.

3.3.11 Invasive Plants and Animals

A General Description and Location

International travel, trade, population growth, climate change, and other factors have facilitated and intensified infestations of exotic and/or invasive plants and animals, including insects, in Florida.

Florida is one of the states most affected by invasive and exotic species, given its hospitable warm climate, abundant rainfall, diverse ecosystems, many international visitors and residents, and highly urbanized areas.

Invasive exotic plants and animals change native plant communities by displacing native species, altering community structures or ecological functions, or hybridizing with native species. The key term is "invasive;" many exotic species don't thrive in Florida, but those that do are considered invasive.

Conversely, invasive species aren't always exotic. Fire suppression or other disturbances, such as major weather events or development, can create a favorable environment for some native species to become invasive.

In response to concerns about exotic plants, the Florida Exotic Pest Plant Council was formed. The mission of the Florida Exotic Pest Plant Council is to support the management of invasive exotic plants in Florida's natural areas by providing a forum for the exchange of scientific, educational and technical information. The Florida Exotic Pest Plant Council is a non-profit organization and is not a regulatory agency. The council publishes an annual List of Invasive Plant Species. The purpose of this list is to focus attention on the following:

- adverse effects of exotic pest plants on Florida's biodiversity and native plant communities
- habitat losses in natural areas from exotic pest plant infestations
- impacts on endangered species via habitat loss and alteration
- need for pest plant management
- socio-economic impacts of these plants (e.g., increased wildfires or flooding in certain areas)
- changes in the severity of different pest plant infestations over time, and
- providing information to help managers set priorities for research and control programs.

More than 500 fish and wildlife nonnative species, also known as exotic species, have been observed in Florida. Not all nonnative species pose a threat to native species. Still, some have become invasive by harming native species, posing a threat to human health and safety, or causing economic damage. Many invasive plant and animal species that thrive in the hot, moist Everglades don't fare as well in the state's more northern pine-dominated forests, where freezing temperatures can occur on a more regular basis than in South Florida.

An insect of concern in Jefferson County is the Southern Pine Beetle (SPB). The SPB is a native insect that ordinarily attacks stressed and dying pines. Under certain environmental conditions, however, SPB outbreaks can occur, during which vast areas of pine trees in both forests and residential landscapes are mass-attacked and killed. Florida has experienced devastating SPB outbreaks in the recent past.

According to the Florida Forest Service, the SPB is one of five common pine bark beetle species that occur throughout the Southeastern United States. While not strictly invasive nor exotic, the SPB, *Dendroctonus frontalis Zimmermann*, is the most destructive insect pest of pine in the southern United States. A recent historical review estimated that SPB caused $900 million of damage to pine forests from 1960 through 1990. According to the Arbor Day Foundation, in a single outbreak period of 1998 to 2002, impacting several southern states, the SPB caused more than $1 billion in damage. This aggressive tree killer is a native insect that lives predominantly in the inner bark of pine trees. SPB feed on phloem tissue where they construct winding S-shaped or serpentine galleries. The galleries created by both the adult beetles and their offspring can effectively girdle a tree, causing its death. Consequently, once SPB have successfully colonized a tree, the tree cannot survive, regardless of control measures.[19] The table below describes stages and symptoms associated with a southern pine beetle infestation.

[19] [83]University of Florida, Entomology and Nematology Department, http://entnemdept.ufl.edu/creatures/trees/southern_pine_beetle.htm.

Table 22: Stages of Southern Pine Beetle Attack.[20]

Symptom	Stage 1 Fresh attacks	Stage 2: Developing broods	Stage 3 Vacated trees
Foliage	Green	Green; fade to yellow before beetles emerge	Red; needles falling
Pitch tubes	Soft; white to light pink	Hardened; white	Hard; yellow; crumble easily
Checkered beetles	Adults crawling on the bark	Larvae in SPB galleries; pink or red; 1/2 inch long	Larvae and pupae are purple; they occur in pockets in the outer bark
Bark	Tight; hard to remove	Loose; peels easily	Very loose; easily removed
Color of wood surface	white, except close to new adult galleries	Light brown with blue or black sections	Dark brown to black; may have sawyer galleries
Exit holes	----	May appear where parent beetles left the tree	Numerous, associated with brood adult emergence
Ambrosia beetle dust	----	White; begins to appear around the base of trees	Abundant at the base of trees

Other invasive plants and animals in Jefferson County at present include the following:

- Coral Ardisia or Scratchthroat (*Ardisia crenata*)
- Wild Taro (Colocasia esculenta)
- Water Hyacinth (Eichhornia crassipes)
- Hydrilla (Hydrilla verticillata)
- Glossy Privet (Ligustrum lucidum)
- Chinese Privet (*Ligustrum sinense*)
- Japanese Climbing Fern (*Lygodium japonicum*)
- Heavenly Bamboo (*Nandina domestica*)
- Torpedo Grass (*Panicum repens*)
- Tallow Tree or Popcorn Tree (*Sapium sebiferum*)
- Alligator Weed (Alternanthera philoxeroides)
- Island Apple Snail (*Pomacea maculata*)
- Camphor Tree (Cinnamomum camphora)

Although these species are not life-threatening, they can become serious agricultural pests that can also create significant natural resource impacts, as well as increasing the cost of public land management.

Invasive plants and animals can crowd out or even eliminate over time natural species. As an example, the Channeled or Island Apple Snail, which exists in Jefferson County, poses a potentially serious threat to the ecological health of Florida rivers, lakes, and wetlands, due

[20] Forest Encyclopedia Network (2009), http://www.forestencyclopedia.net/p/p2901.

to their affinity for aquatic plants, their extremely high fecundity (reproductive capability), and their tolerance for a range of environmental conditions.

B Historical Occurrences

Southern pine beetle infestations have been a widespread occurrence throughout the southeastern United States, including throughout the state of Florida. Millions of dollars' worth of lumber has been destroyed in Florida as a result of southern pine beetle infestations. In response, the Florida Forest Service (formerly known as the Division of Forestry) within the Florida Department of Agriculture and Consumer Services annually surveys the state to determine the level of infestations. The table below describes the historical occurrences of SPB infestations in Florida between 1995 and 2011.

Table 23: Historical Occurrences of Southern Pine Beetle Infestations in Florida, 1995 – 2011[21].

Year	No. of Counties Trapped	SPB/Trap/ Day	% SPB	Prediction Trend/Level	No. of Infestations
2015	25	1.0	15	Static/Low	3
2016	26	0.4	25	Static/Low	46
2017	26	0.4	27	Static/Low	7
2018	26	0.7	21	Static/Low	15
2019	26	0.2	25	Static/Low	1
2020	26	0.2	25	Static/Low	
2021	10	21.0	66	Increasing/Moderate	210
2022	19	0.3	34	Declining/Low	61
2023	19	0.5	22	Static/Low	351
2024	19	7.2	59	Increasing/Low	34
2025	20	1.4	38	Declining/Low	15

C Vulnerability

Most forested areas of Jefferson County are vulnerable to SPB infestations, which is exacerbated by drought, particularly during the summer. Over half of Jefferson County's land area is heavily forested, with various mixed and pure stands of pine trees, increasing the risk of SPB infestation.

Other species, as previously described, have established themselves in Jefferson County. As climate change continues and extreme temperatures increase (and with it, events like drought, stronger storms, and other climatic changes), it is very possible that additional

[21] Florida Department of Agriculture and Consumer Services (2025), http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Forest-Health/Forest-Insects/Southern-Pine-Beetle/Spring-Pheromone-Trap- Forecast.

species will establish themselves as climatic conditions favorable to these species (such as increased heat and/or rainfall) continue, or if these species are brought to this area via wild birds (in the case of seeds), conveyances such as boats, trucks, or other vehicles, or by humans (such as exotic landscape plants).

D Probability

These data indicate that Southern Pine Beetle infestations in Jefferson County and throughout Florida have declined in recent years. The 2025 survey results suggest that SPB populations will remain low at all but one trap location in the 20 counties surveyed across northern and central Florida (Figure 6).

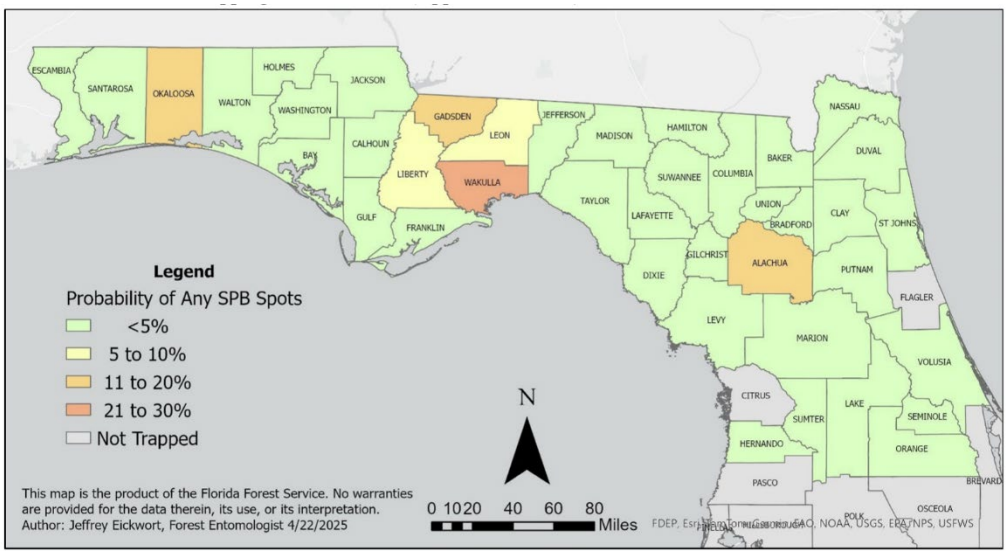


Figure 6: 2025 Southern Pine Beetle Forecasted Probabilities.

Source: Florida Forest Service

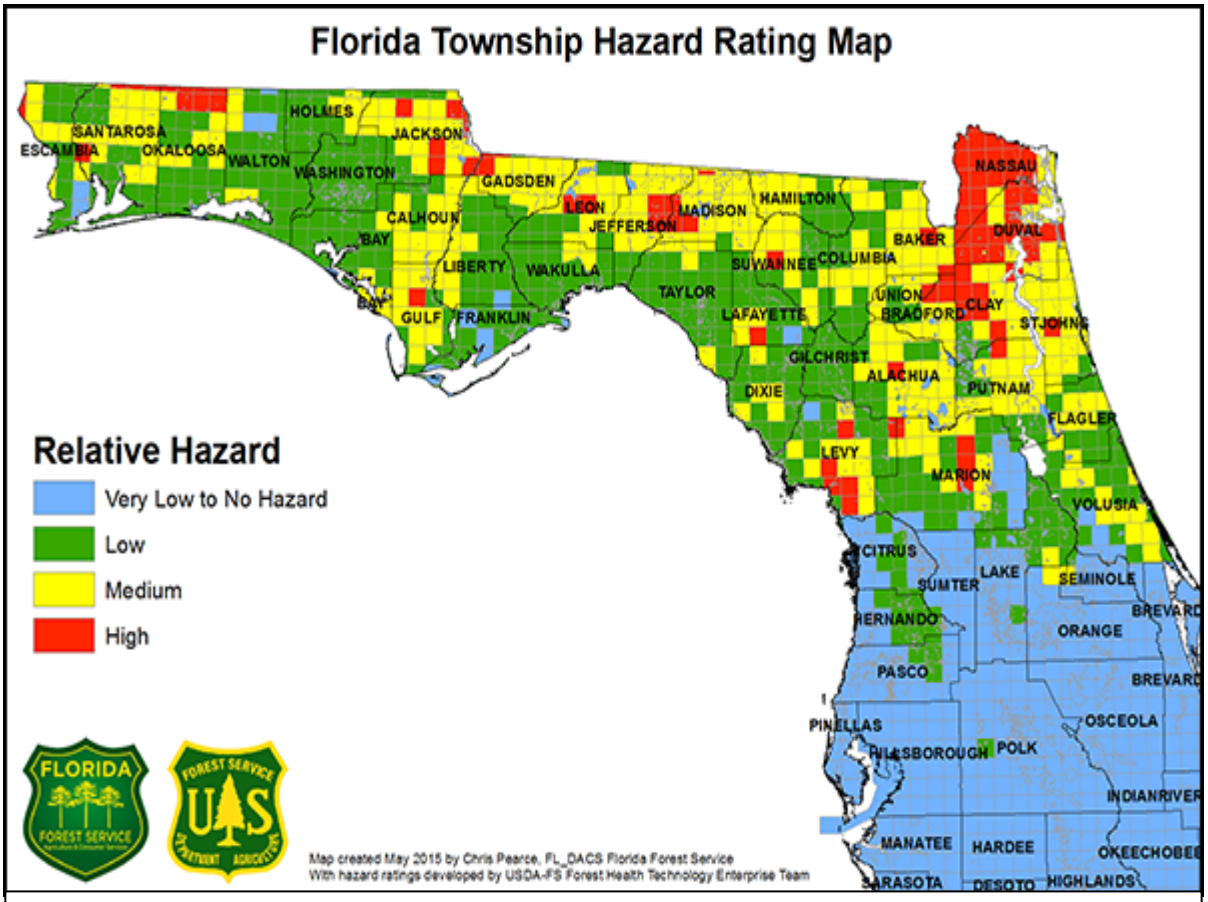


Figure 7: Hazard Rating by Township for North Florida Counties.

Source: Florida Forest Service

The FFS classifies and describes the risk of SPB activities as follows:

1. **High Hazard**: Areas where current forest conditions are exceptionally conducive to chronic SPB activity and/or an area-wide SPB epidemic at virtually any time.
2. **Moderate Hazard**: Areas where current forest conditions may periodically harbor SPB activity and occasionally incur and sustain relatively numerous, enlarging, and/or widespread SPB activity that has a moderate potential of attaining outbreak proportions.
3. **Low Hazard**: Areas where current forest conditions can sustain some scattered infrequent or otherwise local/limited occurrences of SPB, and there is little chance of an area-wide outbreak.
4. **No Hazard**: Areas where there currently is virtually no known potential for any SPB activity.

E Extent

Other invasive species identified above are well-established in many areas of Jefferson County and the City of Monticello at present. Many terrestrial species occur on lands

managed by the federal government, the State of Florida, and local governments. Different plant species in different ecological niches or habitats, but they are present and expanding in some areas. Land and waterbody managers have a variety of programs to try to manage these species, but complete eradication of these species is unlikely.

Except the Southern Pine Beetle, there have been no formal countywide surveys to date of other invasive plant or animals. Individual Land and waterbody managers have tallied invasive species in the areas or features they manage, but there are no known summaries of their impacts and extent. Nonetheless, the probability based on the historical record of an exotic pest infestations affecting Jefferson County and the City of Monticello is **highly likely**.

Despite the recent decline in rates of SPB infestations and the results of the 2025 statewide survey, there remains a threat to forest resources within Jefferson County from SPBs.

The presence of exotic invasive plants and animals does not present a significant health threat to humans or to structures at present and is therefore considered a **low** risk.

3.3.12 Dam or Levee Failure

A Historical Occurrence

A dam failure event occurred on June 7, 2004, at the northern dam on the sinkhole at Lake Miccosukee. A seven-inch steel pipe had corroded which caused holes in the pipe and the spring to leak. Thousands of gallons of water poured out of Lake Miccosukee into a sinkhole. Florida Fish and Wildlife Conservation and the Department of Environmental Protection officials repaired the dam, installing new steel pipes. An official from Florida Fish and Wildlife noted... "If a leak continues to worsen it could happen rather suddenly and it could carry a lot of earth with it right back into the sinkhole and then there would be a gaping hole in the lake, which at a stable point is 6,000 acres and could rapidly be reduced to about 600 acres." The pipes were replaced and the dam was repaired within a 2-month period at a cost of approximately $300,000. Lake Miccosukee has a ravine running through its center. This underwater valley meanders for over 2 miles, with depths of 14 feet. Water levels for the lake returned to a normal level. Flood protection measures according to the FIS, which was completed on February 5, 2014, indicate that the various levees, dikes, and dams located throughout Jefferson County are not known to protect areas against the 1% annual chance flood.

B Vulnerability

There is currently no known way to assess the number of structures vulnerable to a dam failure. The LMS Working Group will continue to assess the data's limitations regarding this hazard and attempt to determine Jefferson County's vulnerability. Jefferson County has ten recorded dams in the National Inventory of Dams database. There is no vulnerability posed for the City of Monticello or the County in general. Six of the structures are designated as Low Hazard Potential, and the remaining structures are unclassified hazard potential. All of them, except one, are private dams for recreational purposes, such as for fishing ponds, and retain less than 1000 acre-feet of water.

C Probability

Each dam listed in the Florida Department of Environmental Protection Inventory of Dams is assigned a Hazard Potential Rating. The ratings are described below:

Low Hazard Potential

Dams assigned the low-hazard potential classification are those in which failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

Significant Hazard Potential

Dams assigned to the significant hazard potential classification are those dams where failure or disoperation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas, but could be located in areas with population and considerable infrastructure.

High Hazard Potential

Dams assigned the high-hazard potential classification are those where failure or mis-operation will probably cause loss of human life.

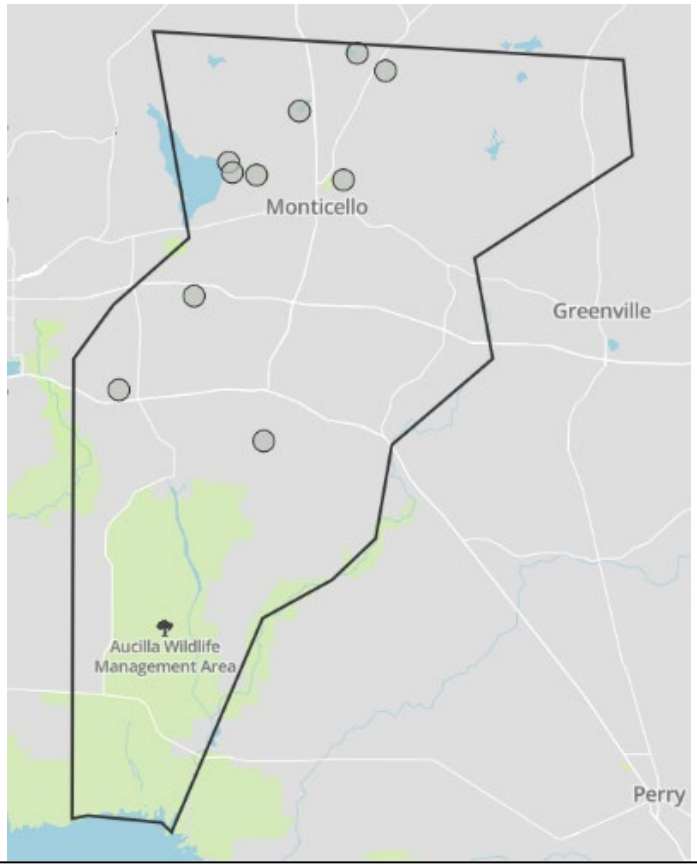


Figure 8: Dam/Levee Locations in the County, as per FL-DEP.

D Extent

The extent of flooding caused by a levee or dam failure in Jefferson County from the only dam that can impact the county, the Lake Miccosukee Dam, is negligible. This dam empties into a sinkhole. The water from the lake naturally drains into this sinkhole. The dam and other water control structures in the area were constructed to regulate lake water levels and enhance wildlife habitat. The worst-case scenario is that the lake would drain completely into the sinkhole, leaving a footprint of 10% of its previous size.

E Impact

The impact to the County would merely be a loss of fishing and recreational opportunities on the lake. There are no impacts to the City of Monticello. Other smaller dams would have no impact on anything other than flooding on an individual property where the dam is located, for their personal recreational opportunities.

3.3.13 Terrorism

A Previous Occurrence

Under the federal Homeland Security Act of 2002, terrorism is defined as an activity that involves acts dangerous to human life or potentially destructive of critical infrastructure or

key resources, intended to intimidate or coerce the civilian population or influence government action through mass destruction, assassination, or kidnapping. Jefferson County has no documented history of terrorist incidents occurring within the county or the City of Monticello.

While no terrorist events have been recorded locally, national and statewide experience demonstrates that terrorism remains a credible hazard that can affect jurisdictions without prior incidents. As such, the absence of previous occurrences does not eliminate the potential for future impacts.

B Vulnerability

Jefferson County and the City of Monticello are considered vulnerable to terrorist activity, particularly at locations that involve public gatherings, high-capacity community facilities, and government buildings. Due to population density and concentration of public infrastructure, terrorist activity would be more likely to occur within the City of Monticello than in the unincorporated areas of the county.

In assessing vulnerability, it is important to distinguish between criminal activity and terrorist activity. Terrorism is characterized by the use or threat of violence intended to create fear and achieve political or ideological objectives, whereas criminal acts are typically motivated by personal or financial gain. This distinction is critical for planning, policy development, and intelligence coordination, even though the immediate response actions for first responders may be similar regardless of motive.

C Probability

Based on historical records and threat assessments, the probability of a terrorism event affecting Jefferson County or the City of Monticello is considered Low. There have been no prior terrorist incidents within the jurisdiction, and no current indicators suggest an elevated local threat.

However, terrorism is a low-frequency, high-consequence hazard, meaning that while the likelihood of occurrence is low, the potential severity of impacts warrants continued planning, preparedness, and coordination with state and federal partners.

D Extent

The potential extent of a terrorist incident in Jefferson County would depend on the method used and the target selected. Attacks involving explosives, firearms, or sabotage could result in localized damage to specific facilities or gathering places. In contrast, incidents involving biological, chemical, radiological, nuclear, or explosive (CBRNE) agents could have broader geographic consequences.

In the event of a biological or chemical release within the City of Monticello, impacts could extend beyond municipal boundaries and affect residents in unincorporated areas of Jefferson County through airborne dispersion, water contamination, or secondary exposure. Such incidents may require countywide response actions, including sheltering, evacuation, or mass prophylaxis.

E Impact

Potential impacts of a terrorist incident include loss of life, injuries, damage to critical infrastructure, and significant disruption to government operations and essential services. Additional impacts may include long-term public health consequences, economic disruption, psychological effects on the community, and increased demand on emergency response, law enforcement, and public health systems.

In recognition of these potential impacts, the Jefferson County Division of Emergency Management has developed a Terrorism Response Plan, which is integrated into the Jefferson County Comprehensive Emergency Management Plan (CEMP). This plan focuses on consequence management, including preparedness, response, and recovery actions associated with terrorist-initiated incidents, particularly those involving weapons of mass destruction. Continued planning and coordination enhance the county's ability to reduce impacts and recover effectively should such an incident occur.

3.3.14 Cyberterrorism

A Previous Occurrence

There have been no occurrences of cyberterrorism in Jefferson County; however, there have been occurrences in Florida and other parts of the U.S.[22] In the City of Riviera Beach, Florida, in 2019, the city council paid $600,000 in ransom after the city's website, email accounts, phone system, and water billing system were attacked. The attack was initiated after an employee opened a link in an email.[23] In Stuart, Florida, city servers were hit by a ransomware attack in April 2019. No payment was made, but some police evidence, stored on the network, was lost, resulting in police having to drop cases against suspected drug dealers due to a lack of evidence.[24] In December 2019, the St. Lucie County, Florida, Sheriff's Office was infected with malware. The disruption affected all network systems, including payroll; however, the county had backed up data and also had malware insurance that covered the approximately $550,000 the county spent to replace and restore equipment, software, and data.[25]

A ransomware attack crippled the network of nearby Lake City (part of Columbia County) in June 2019, prompting city officials to pay a $460,000 ransom. Though the event was financially motivated rather than an act of terrorism, it highlighted the vulnerability of local government systems to crippling cyber threats. The attackers used a highly sophisticated phishing scheme to gain access to the city's network.[26]

A cyberterrorism incident has been determined to have a medium likelihood of occurrence in Jefferson County within the five-year planning cycle of this plan. Additional analyses are

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[22] Center for Internet Security. https://www.cisecurity.org/ms-isac/

[23] Defending Local Government Agencies From Rising Threat of Ransomware, Forbes, February 10, 2020

[24] Police Evidence Lost in Stuart Hack Attack, Six Suspected Drug Dealers Walk Free, WPTV website, February 21, 2020, https://www.wptv.com/news/local-news/stuart/police-evidence-lost-in-stuart-hack-attack-six-suspected-drug-dealers-walk-free

[25] Malware Insurance Saves St. Lucie County Sheriff's Office $550,000 After Cyber Attack, 25 WPBF News, January 29, 2020, https://www.wpbf.com/article/malware-insurance-saves-st-lucie-county-sheriffs-office-dollar550000-after-cyber-attack/30706374

[26] When Ransomware Cripples a City, Who's to Blame?, New York Times, August 22, 2019

needed to assess the County and City networks' and staff's ability to recognize and defend against such attacks. The risks of this hazard and the development of suitable mitigation action items will be conducted in the future based on periodic reviews of this LMS and available resources. Vulnerability and Risk Assessment Hazard Ranking The priority hazard ranking process for the 2020 HIRA determined terrorism to be a low to medium priority hazard in Jefferson County. As described in the profile above, terrorism events within the county are not common events, as they haven't been documented.

B Vulnerability

Cyber threats to critical infrastructures can be posed by anyone with the capability, technology, opportunity, and intent to harm. Potential threats can be foreign or domestic, internal or external, State-sponsored or a single rogue element. Terrorists, insiders, disgruntled employees, and hackers are included in this profile. The fact that most of the nation's vital services are delivered by private companies creates a significant challenge in assigning the responsibility for protecting our critical infrastructures from cyber-attacks.

The extent, nature, and timing of cyber incidents are impossible to predict. There may or may not be any warning. Some cyber incidents take a long time (weeks, months or even years) to be discovered and identified (FEMA 2013). The magnitude of severity of an incident will vary greatly based on the extent and duration of the impact. The extent will also vary based upon which specific system is affected by an attack, the warning time, and the ability to preempt an attack.

C Probability

The Multi-State Information Sharing and Analysis Center (MS-ISAC) created the Cyber Alert Level Indicator. It shows the current level of malicious cyber activity and reflects the potential for, or actual damage. There are five cyber alert levels: low, guarded, elevated, high, and severe. Each level is indicated by a color. The following is additional information regarding these levels:

• **Low** – Indicates a low risk. No unusual activity exists beyond the normal concern for known hacking activities, known viruses, or other malicious activity.

• **Guarded** – Indicates a general risk of increased hacking, virus, or other malicious activity. The potential exists for malicious cyber activities, but no known exploits have been identified, or known exploits have been identified but no significant impact has occurred.

• **Elevated** – Indicates a significant risk due to increased hacking, virus, or other malicious activity which compromises systems or diminishes service. At this level, there is known vulnerabilities that are being exploited with a moderate level of damage or disruption, or the potential for significant damage or disruption is high. 156 Jefferson County Local Mitigation Strategy 2020 Update

• **High** - Indicates a high risk of increased hacking, virus or other malicious cyber activity which targets or compromises core infrastructure, causes multiple service outages, multiple system compromises or compromises critical infrastructure. At this level, vulnerabilities are being exploited with a high level of damage or disruption, or the potential for severe damage or disruption is high.

• **Severe** - Indicates a severe risk of hacking, virus, or other malicious activity resulting in widespread outages and/or significantly destructive compromises to systems with no known remedy or debilitates one or more critical infrastructure sectors. At this level, vulnerabilities are being exploited with a severe or widespread level of damage or disruption of Critical Infrastructure Assets.

All assets within Jefferson County are vulnerable to terrorist incidents; however, government facilities and public areas are most at risk.

In evaluating the vulnerability of the population in Jefferson County, it was determined that the risk/vulnerability assessment encompasses the entire population, as the impact/magnitude of a terrorist incident cannot be determined, and predicting its occurrence is impossible. People are vulnerable to terrorist incidents through physical injury or disease, power outages, effects on transportation routes, establishment of shelters, effect of incident on mental state of the public, confidence of public in law enforcement support, contamination of the food supply, etc.

Risks to the environment are high should a terrorist incident occur, but the frequency of terrorist incidents in Jefferson County is low. Environmental concerns are interruption or contamination of water or food supplies, secondary incidents such as fires and hazmat accidents (such as gas pipelines rupturing, rupture of hazmat containers at facilities, etc.).

Future development throughout Jefferson County will take into consideration possible terrorist incidents; particularly if new facilities are built that could be potential terrorist targets. All network equipment, data and software for government, business, and individuals within Jefferson County are vulnerable to being affected by a cyberterrorist incident; however, government and healthcare facility servers and networks are currently most vulnerable to such incidents.

D Extent

For critical facilities in Jefferson County, cyberterrorism has the potential to disrupt the following systems:

- Communications
    - o Next Generation 911 (NG9-1-1)
    - o Computer Aided Dispatch (CAD) / Mobile Data Terminals (MDT)
    - o Land Mobile Radio (LMR) / First Responder Network Authority (FirstNet)
- Law Enforcement
    - o Data
    - o Equipment
    - o Security / Access Systems
- Fire/EMS
    - o Data
    - o Equipment
    - o Fleet
- Medical/Public Health
    - o Data

- Durable Medical Equipment (DME)
- Facilities

- Transit/Transportation
  - Supervisory Control and Data Acquisition / Original Equipment Manufacturer
  - Information
- Utilities
  - Data
  - Incident Control System / Supervisory Control and Data Acquisition
- Emergency Management
  - Data
  - Common Operating Picture
  - Alert and Warning

E Impact

Disruptions to these systems could hinder access to data, result in the theft or leakage of sensitive/private information, cause a temporary or permanent loss of data, prevent access to websites, disrupt phone services such as 911 systems, disrupt emergency services, and result in a loss of public confidence and staff productivity.

Environmental risks are low because ecological damage is not a typical target of cyberterrorism attacks. However, if specific systems are accessed and either disabled or manipulated, environmental harm could result. Ecological concerns are interruptions of water or wastewater systems, damage or disruption to industrial manufacturing facilities resulting in hazardous material incidents, interruptions of the power grid and fire suppression systems, etc.

Constant vigilance by staff, along with the deployment of protective systems to detect threats and safeguard data, is needed to ensure that data in the county is protected from cyberterrorism.

3.3.15 Hazardous Materials

There are many potentially hazardous industrial substances used in manufacturing and other industrial and commercial activities. The use, storage, transport, or improper disposal of these substances and/or their byproducts or wastes can present a threat to public health. Although these materials vary in how and to what level they may pose a threat to public health and safety, airborne substances and materials with low combustible temperatures and high toxicity are of particular concern.

Hazardous materials generally fall into two categories: (1) raw and refined hazardous substances, and (2) hazardous wastes. Hazardous materials are identified and regulated by federal law, which is primarily administered by the U.S. Environmental Protection Agency (EPA). Other agencies involved in the regulation of hazardous materials include the U.S. Occupational Safety and Health Administration (OSHA), the U.S. Department of

Transportation (DOT), and the U.S. Nuclear Regulatory Commission (NRC). Each has its own definition of a "hazardous material."

The Resource Conservation and Recovery Act (RCRA) is the public law that creates the framework for the proper management of hazardous and non-hazardous solid waste. RCRA gives EPA the authority to control hazardous waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage and disposal of hazardous waste. To achieve this, EPA has developed regulations, guidance and policies intended to ensure the safe management and cleanup of solid and hazardous waste, and programs that encourage source reduction and beneficial reuse.

Hazardous materials and wastes regulated by the EPA under RCRA include hazardous wastes, which are regulated by type and quantity, and Extremely Hazardous Substances, which are often stored at fixed facilities. The federal Occupational Safety and Health Administration requires Material Safety Data Sheets for more than 500,000 of these substances, and that these sheets must be posted where these substances are used or stored. Many of these substances are utilized throughout Jefferson County.

Hazardous Wastes

Hazardous waste has properties that make it dangerous or potentially harmful to human health or the environment. Hazardous wastes (HW) are wastes identified in federal code (40 CFR 261 Subpart D) as hazardous by the U.S. Environmental Protection Agency, or they are wastes characterized (40 CFR 261 Subpart C) as hazardous by exhibiting one of four characteristics: ignitability (i.e., an oxidizer or flash point < 140°), corrosivity (i.e., pH < 2 or > 12.5), reactivity, or toxicity.

Hazardous waste generators are classified into three categories:

1. *Very Small Quantity Generators (VSQGs):* VSQGs generate less than 220 pounds of hazardous waste per month and less than 2.2 pounds of acute hazardous waste (such as some pesticides, toxins or arsenic and cyanide compounds) per month.
2. *Small Quantity Generators* (SQGs) - SQGs generate 220 to 2,200 pounds of hazardous waste per month, and
3. *Large Quantity Generators* (LQGs) - LQGs generate 2,200 pounds or more of hazardous waste per month or 2.2 pounds or more of acute hazardous waste per month.

These generators produce a variety of wastes, and the number of active facilities (waste generators) and pounds or kilograms of waste produced varies constantly.

The disposal of hazardous wastes has been a concern of federal, state, and local governments for some time now. The improper disposal of hazardous wastes, or exposure to hazardous wastes through spills, improper storage, or other means, is also of great concern. Transportation of these materials also presents a risk to the community, whether they are

transported on public roads via truck or tanker, or on fixed railroad lines that run through Jefferson County and the City of Monticello.

The hazardous waste program, under RCRA Subtitle C, establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal—in effect, from "cradle to grave." In any given State, EPA or the State hazardous waste regulatory agency enforces hazardous waste laws. EPA encourages States to assume primary responsibility for implementing a hazardous waste program through State adoption, authorization, and implementation of the regulations. The RCRA hazardous waste program regulates commercial businesses as well as federal, State, and local government facilities that generate, transport, treat, store, or dispose of hazardous waste.

State and Federal Agencies are required to provide biennial reports to the EPA which includes information on the generation, management and final disposition of hazardous waste regulated by the Resource Conservation and Recovery Act.

DEP has developed rules, regulations, and programs that address various forms of hazardous waste. These materials include electronic wastes; universal wastes such as batteries, pesticides, mercury- containing equipment and lamps, and pharmaceutical wastes generated by various types of medical facilities; and used oil and mercury. Transporters and transfer facilities and all other handlers are also regulated.

These regulations and programs specifically require that hazardous wastes must be identified, recycled, treated to reduce their hazard to humans and the environment, properly stored, or properly disposed at a licensed HW facility. HW cannot be disposed on or in the ground, or in local landfills, septic tanks, or injection wells. Also, regardless of quantity, the generator of HW is ultimately responsible for the waste from "cradle to grave" and can be held liable for improper management of HW even though it may have been sent to a HW management facility using a licensed transporter.

Extremely Hazardous Substances

Currently, the U.S. Environmental Protection Agency classifies 366 Extremely Hazardous Substances (EHS). EHSs are chemicals with acutely toxic properties that pose the most significant threat to public health. Facilities using EHSs above threshold planning quantities are required to report to the Florida Division of Emergency Management under the federal Emergency Planning and Community Right to Know Act of 1986 (EPCRA).

The federal Emergency Planning and Community Right-To-Know Act of 1986 created and imposed planning and preparedness requirements upon Local Emergency Planning Committees (LEPCs) for emergencies involving the release of hazardous materials.

In response to this federal mandate, the *District II Local Emergency Planning Committee Hazardous Materials Emergency Plan* was updated by the Apalachee Regional Planning Council Information June 2020. This Plan addresses hazardous materials and the facilities where these materials are stored or handled within Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty and Wakulla Counties. It also provides detailed operating procedures for first response public safety agencies charged with the responsibility of protecting the public's health and safety

from the discharge or release of extremely toxic chemicals. The areas addressed by this Plan include:

- Organizations and responsibilities
- Notification and activation
- Communication
- Public information and education
- Emergency facilities and equipment
- Accident assessment
- Exposure control for emergency workers
- Protection actions
- Medical and public health support
- Recovery and re-entry exercises, and
- Training.

Hazardous Materials Commodity Flow Study

The Apalachee Regional Planning Council (ARPC) serves as staff to the Local Emergency Planning Committee (LEPC), which includes Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty and Wakulla counties. The Apalachee LEPC is responsible for implementing the federal Emergency Planning and Community Right-to-Know Act (EPCRA) through hazardous materials planning, training, exercises and public outreach activities. In compliance with EPCRA, the LEPC:

- Collects required hazmat facility reports for public access
- Coordinates hazardous materials training classes and exercises
- Provides community outreach on EPCRA and Shelter-in-Place
- Provides technical assistance to facilities reporting under EPCRA

The LEPC also annually updates the regional hazardous materials emergency plan, which identifies facilities that use, produce and/or store hazardous substances within the jurisdiction of the ARPC.

In February of 2016, the LEPC began a transportation flow study of the hazardous materials shipped through the nine-county district. Survey data collection occurred over a six-month period. Although the original Hazardous Materials Emergency Preparedness (HMEP) scope of work for the project called only for a highway placard survey, the Apalachee LEPC included an analysis of CSX Transportation rail data.

For the highway placard survey, data was collected and analyzed from nearly 800 vehicles carrying hazardous materials on Interstate 10, US 98 and US-90 (east-west routes), and US-19, US-319, US 27 and US-231 (north-south routes). During the data collection, it was observed that Interstate 10 is the major road corridor of hazardous materials transport within the Apalachee District, including Jefferson County. Although hazardous materials are transported on almost all major roads within the District, the bulk of the hazardous materials were observed on Interstate 10. However, the majority of the gasoline and diesel fuel was observed coming into the District on US 27, assumedly from Bainbridge, Georgia. US 27 is one of the major federal highways that traverse Jefferson County and the City of Monticello.

Table 24: Hazardous Waste Summary.[27]

Waste	Description	Count of Facilities	Pounds	Percent
AMEO	ANTIFREEZE (HW EXCEPT WHEN RECYCLED)	3	6505	2.04%
BDEB	LEAD-ACID BATTERIES	4	114912	36.1%
EENU	EMPTY PESTICIDE CONTAINERS D,U LIST	2	100	0.03%
GPID	DISCARDED GASOLINE, DIESEL OR OTHER FUELS	1	44000	13.82%
LDEB	FLUORESCENT LAMPS/DEVICES	6	1787	0.56%
NPIA	MINERAL SPIRITS-PARTS CLEANER	3	491	0.15%
OPLD	DISCARDED UNUSED OR OFF-SPEC COMMERCIAL CHEM	1	10	0%
PMIP	IGNITABLE PAINT WASTES - FLASHPOINT < 140 F	1	5188	1.63%
SMHA	AQUEOUS PARTS WASHER W/HEAVY METALS	1	84	0.03%
SMRA	SPENT SOLVENTS (MIX/OTHER)	1	1808	0.57%
SPNA	AQUEOUS PARTS WASHER, NOT HW	1	0	0%
UOEO	USED OILCOLLECTED BY PUOCC FACS	6	0	0%
UORU	USED OIL (AND FILTERS)-MIXED WITH USED OIL	1	7344	2.31%
UPEO	USED OILS & OTHER LUBRICANTS	18	129578	40.71%
UUNO	UNCRUSHED OIL FILTERS	12	6515	2.05%
		43	0	0%
Total:			318322	

Transportation of Hazardous Materials

As previously noted, transportation-related incidents are a major cause of the release of hazardous material. The county is crossed by several major highways and a freight rail line that provide access for the shipment of hazardous substances. Hazardous material spills are reported to the State Emergency Response Commission at the Florida Division of Emergency Management and recorded in the Hazardous Materials Information System (HMIS) database.

Hazardous Materials Commodity Flow Study

According to the results of the updated 2016 Hazardous Materials Commodity Flow Study, the majority (75.1%) of the hazardous materials being transported throughout the District are Flammable Liquids (Non-Polar/Water-Immiscible). This category includes petroleum products such as gasoline, gasohol and motor spirits. The second most abundant category, far behind that of the top grossing category is Gases - Flammable (Including Refrigerated Liquids). This category also includes petroleum products, such as propane, LPG and hydrogen. Overall, petroleum-based hazardous materials account for the overwhelming majority of surveyed hazardous materials placards within the region traveling on the

[27] https://fldep.dep.state.fl.us/chaz_sqg/filter.asp.

highway. In addition, it may be important to note that some of the Flammable Liquids (Polar/Water- Miscible) category may include petroleum products such as resin solution. Beyond petroleum products, the survey revealed nineteen other general hazard categories as found in the 2012 ERG ranging from 2.7% to less than 1% of the total number of surveyed trucks. These survey results show the wide diversity of hazardous materials traveling through the ARPC district.

Railroads

Three active railroads operate in the Apalachee Regional Planning Council's district. The only railroad operating through Jefferson County is CSXT. CSXT is a division of CSX Corporation and it runs through Jackson, Gadsden, Leon, and Jefferson counties in the ARPC district.

A hazardous materials density study was performed by CSX Transportation to identify the hazardous materials most frequently transported through the District. The study, the results summarized in the ARPC's Flow Study, excludes intermodal shipments (trailer or container on flat cars). Molten sulfur, environmentally hazardous substances, sodium hydroxide solution, liquefied petroleum gases and ammonium nitrate were the five most frequently shipped hazardous materials commodities in 2015 by rail by CSX Transportation. The top four commodities have stayed the same since the last study in 2007. The fifth most common commodity, ammonium nitrate, was previously refrigerated liquid carbon dioxide.

A comparison of the Highway Placard Survey and the CSX Density Study reveals that both Flammable Liquids (Non-Polar/Water-Immiscible), Substances – Toxic and/or Corrosive (Non-Combustible), and Substances (Low to Moderate Hazard) are listed in the 'Top 5' hazard materials being transported within the ARPC district, including Jefferson County.

Overall, according to the Flow Study, molten sulfur, environmentally hazardous substances, sodium hydroxide solution, liquefied petroleum gases and ammonium nitrate were the five most frequently shipped hazardous materials commodities in 2015 by rail by CSX Transportation. The top four commodities have stayed the same since the last study in 2007. The fifth most common commodity, ammonium nitrate, was previously refrigerated liquid carbon dioxide.

Extremely Hazardous Substances

As part of the aforementioned *District II Local Emergency Planning Committee Hazardous Materials Emergency Plan*, the Apalachee Regional Planning Council maintains a detailed descriptions and locations of facilities that handle and/or store Extremely Hazardous Substances (EHSs). These data include the name, location, ownership, and contact person for each facility, as well as the facility's vulnerable zone (VZ), vulnerable population, evacuation routes, type and amount of EHS, and other known critical facilities within the VZ.[128] This information and other related data used for the Hazards Analyses that are part of this Plan, is organized with a CAMEOfm database that is maintained by the Apalachee Regional Planning Council. This database is updated annually and is available to emergency responders upon request. The Hazards Analyses conducted as part of the *Hazardous Materials Emergency Plan*

are also located at the Apalachee Regional Planning Council. This information is not included in this document for reasons of brevity and security.

Estimated Impacts, Probability, and Extent

The 2021 Hazardous Materials Commodity Flow Study and the 2022 CSX Hazardous Materials Commodity Summary indicates that both flammable gases (Including refrigerated gases in liquid state) and toxic and/or corrosive (non-combustible) substances are the most common materials associated with the transportation of hazardous materials.

Overall, petroleum-based hazardous materials account for 49% of surveyed hazardous materials placards within the region. Beyond petroleum products, the survey also revealed nineteen other general hazard categories as found in the 2008 ERG ranging from 5% to less than 1% of the total number of surveyed trucks. These survey results show the wide diversity of hazardous materials traveling through the District II region.

The majority of local incidents involving spills of hazardous materials include petroleum-based substances, such as gasoline, diesel, oil or hydraulic fluid spills. Transportation related incidents accounted for more than 41 percent of known sources and included automobile accidents in which small amounts of gas or oil were released.

The above data suggests that hazardous material spills frequently involve the transportation of these substances, and that responders are most likely to find themselves addressing a petroleum spill incident along county roadways.

Vulnerability Summary

Portions of Jefferson County and the City of Monticello are vulnerable to accidental releases of hazardous materials being stored or transported. These portions tend to be clustered around facilities or industrial areas where these materials are stored, or along major transportation corridors where they are regularly transported.

Vulnerability to hazardous materials releases (including wastes), whether onsite or in route, is not particularly easy to determine due to the materials and amount released, location, weather, and other variables. Nevertheless, in order to try to determine the vulnerability of Jefferson County to potential hazardous material incidents, it is necessary to determine the "vulnerable zone" or area of each facility using or storing extremely hazardous substances.

A hazards analysis for each of these facilities is updated annually by the Apalachee Regional Planning Council that provides worst-case estimates of populations at risk from a hazardous materials release.

The Local Emergency Planning Committee and the county emergency management agency maintain these data, and they can provide detailed information to responders and other agencies regarding vulnerability areas which can be determined in real time using the specific chemical, amount of release, wind direction and wind speed.[130]

Although, due to the specificity of each hazardous material release, it is not possible to determine a comprehensive vulnerable zone or population exposure for Jefferson County.

Nevertheless, Jefferson County and the City of Monticello are highly vulnerable to exposure to hazardous materials, largely because of the quantities transported through the county by truck and rail. These incidents can occur at either fixed facilities or from the transportation of hazardous material through the County and City.

Nationwide, there are more transportation accidents involving hazardous materials and wastes than those that occur at fixed facilities. These transportation accidents can occur on roadways, railways, waterways, in the air, and within pipelines. In addition, the numbers of large and small quantity generators are significant, and they are correlated with the ranges of services and manufacturing in county's economy. These generators are registered with the FDEP and have control plans in place in accordance with permit procedures, and the City is equipped to address spills and accidental releases. However, the number of generators and the quantity and types of materials handled may be expected to increase proportionately with population and general economic growth.

The fixed facility study reports no history of accidents and a low probability of release for all facilities, with the exception of potential valve leakage at roughly half the sites. Nevertheless, if the vulnerability zones were combined for all critical facilities, they would encompass large areas of the county. A Worst-case scenario release of hazardous gases on a windy day would expose one or more critical facilities within the City of Monticello and/or the unincorporated area of Jefferson County to this hazard. Critical facilities vulnerable to exposure included public schools, universities, and day care centers.

Risk Assessment

Based on the 2021 Hazardous Materials Commodity Flow Study and 2022 CSX Hazardous Materials Commodity Summary and the historical record of releases of these materials, there is a **medium** risk to residents of Jefferson County and/or the City of Monticello from the accidental release of hazardous materials.

3.4 Critical Facilities

The County's critical facilities are those facilities necessary for a community's response and recovery from a hazard event. Categories of the essential facilities would include: emergency response, hospitals, medical centers, emergency shelters, school, fire stations, sheriff's office, emergency operations center, waste water and water treatment plants, radio communications towers, correctional institutions, utilities, storage of critical records, financial institutions and major government buildings, etc. should not be placed in high hazard areas because the function these facilities provide are too valuable to be placed in jeopardy, especially during times of disaster and are essential to the well-being of the community served by these systems. See Attachment 6.5 for a complete list of the county's current critical facilities. This list is maintained by the mitigation working group and updated at their regular meetings. FEMA encourages but does not require the mapping of critical facilities. Given this guidance and the security implications of mapping existing and new critical facilities, a list is maintained.

The critical facilities that would stay open during a disaster would include the following:

- Emergency Operations Center
- Jefferson County Fire Rescue
- City of Monticello Police Department
- Jefferson County Sheriff's Department
- Tri-County Electric Cooperation (facilities)
- All Designated Hurricane Shelters
- City of Monticello (facilities)
- Duke Energy (facilities)

4 Mitigation Strategy

This section discusses the overall mitigation strategy, including goals and objectives, existing policies, programs, and resources, and programs and initiatives intended to address the hazards previously described. Mitigation projects or initiatives are those activities that aim to reduce the risks from natural hazards in a community. Mitigation is not a "one size fits all" process; a successful risk reduction activity in one community may not work in another. Several factors play a role in the decision on which mitigation activities to pursue including the frequency and severity of the hazard, the communities' ability to address the problem, ease of implementation, costs and benefits, availability of funding, and a local champion to spearhead the activity, among others

4.1 Hazard Mitigation Goals and Objectives

The LMS Working Group has developed six hazard mitigation goals with supporting objectives. The list was developed from a review of County and City comprehensive plans, land development regulations, and the CEMP to determine those elements of the plans and regulations with mitigation implications.

As part of the 2025 update of the LMS, the LMS Working Group reviewed the adopted Hazard Mitigation Goals and Objectives to reflect the latest local government and other stakeholder priorities:

1. Goal: Protect human health, safety and welfare.

Objectives:

1.1 Identify and assess hazards that may affect the entire county and serve as the primary hazard analysis for other response, recovery, and resilience plans.

1.2 Protect critical facilities through mitigation of existing facilities and minimize the construction of new critical facilities in hazardous or other high-risk areas.

1.3 Support programs to address repetitively damaged and vulnerable residential structures in or near hazardous or other high-risk areas.

1.3 Acquire properties subject to repetitive losses and restrict new development in hazardous or other high-risk areas.

1.4 Regulate non-conforming land uses particularly in hazardous or other high-risk areas.

1.6 Restrict and remove where feasible chemical storage facilities and other potentially hazardous land uses from hazardous or other high-risk areas.

1.7 Incorporate hazard mitigation objectives and recommendations into the development review process where appropriate.

1.8 Adopt land development building codes and inspection procedures that meet or exceed the hazard mitigation-related portions of the Florida Building Code

2. Goal: Strengthen economic activities within the community.

Objectives:

2.1 Diversify the local economy to protect the community from hazards that may affect a single economic resource.

2.2 Support the hardening of vulnerable commercial structures to hazards and the relocation of these structures from hazardous or other high-risk areas.

2.3 Coordinate economic development activities with existing and proposed mitigation initiatives.

2.4 Limit public expenditures in hazardous or other high-risk areas.

3. Goal: Enhance regional mitigation efforts.

Objectives:

3.1 Coordinate with and encourage the participation of other local stakeholders, including government agencies, in the local hazard mitigation process.

3.2 Coordinate with other government agencies to develop regional mitigation programs and plans.

3.3 Coordinate with other government agencies to develop regional hazard mapping procedures and processes.

4. Goal: Protect community, environmental, recreational, and historic resources.

Objectives:

4.1 Remove and/or relocate damaged and vulnerable infrastructure, particularly within hazardous or other high-risk areas.

4.2 Regulate land use, floodplains and the design and location of sanitary sewer and septic tanks in hazardous or other high-risk areas.

4.3 Encourage the removal of septic tanks from hazardous or other high-risk areas.

4.4 Enhance the protective features of the natural ecosystem by preserving critical natural spaces and investing in green infrastructure wherever practical.

4.5 Incentivize development projects that exceed conservation and preservation requirements while providing connectivity to other natural areas.

5. Goal: Promote the community's ability to respond to a disaster in a timely manner.

Objectives:

5.1 Continue to participate in the National Flood Insurance Program (NFIP) and Community Rating System (CRS) and pursue additional initiatives whenever feasible.

5.2 Continue to coordinate with the NFIP to update and revise Flood Insurance Rate Maps where necessary.

5.3 Encourage public awareness of hazards and hazardous or other high-risk areas in the community.

5.4 Preserve the ability to safely shelter in place or evacuate hazardous or other high-risk areas.

5.5 Maintain plans, policies, and procedures for pre- and post-storm development.

5.6 Continue eligibility for federal mitigation grant funding, including both pre- and post-disaster grants, from the Federal Emergency Management Agency (FEMA)

5.7 Identify damaged structures in Special Flood Hazard Areas (SFHAs) and other hazardous or other high-risk areas for substantial damage determination.

5.8 Partner across agencies to provide disaster preparedness training, business continuity planning, and coordinated response activities.

4.2 Administrative Capabilities of the Jurisdictions

The county is considered an economically vulnerable county which in recent years faced the challenges of disaster recovery, increasing insurance costs and limited economic diversification. The two jurisdictions of the county do not have budgeted funds for mitigation projects. The County does have staff in the Planning Department and the County Manager's Office who apply for and maintain tracking of the grants. The County Manager oversees this to ensure compliance with grants. The City of Monticello has personnel in the City Clerk's office who manage grants for the city and they are overseen by the City Clerk who works closely with the County personnel for implementation of grants and assurance that implementation aligns with the requirements of the grant.

The following is a list of the primary funding sources that could be used for mitigation projects, in some fashion. The Jefferson County LMS Working Committee will make every attempt to secure funding from any of these sources for identified mitigation projects.

- Hazard Mitigation Grant Program
- Community Development Block Grants
- Florida Communities Trust

- Florida Small Cities Community Development Block Grant Program
- Emergency Management Preparedness and Assistance Trust Fund
- Flood Mitigation Assistance Program
- Pre-Disaster Mitigation Program
- State Housing Initiative Partnership Program
- Low-Income Home Energy Assistance and Weatherization
- Florida Department of Agriculture and Consumer Services/Division of Forestry Wildfire Grant Funds
- Florida Department of Transportation
- National Resource Conservation Services
- US Army Corps of Engineers
- Office of Domestic Preparedness

The most probable sources for funding for mitigation projects are the HMGP and the PDM programs. Because the funding sources are specific to mitigation, a more detailed explanation of these two programs is listed at the end of Section 4.3 Existing Policies, Programs, and Resources.

At present, a great deal of formal and informal coordination occurs daily within Jefferson County, including the LMS Working Group member organizations, stakeholders, and other institutions and organizations that provide employment, education, transportation, utilities, and many other services. The various plans and programs previously described are constantly being evaluated and updated when necessary and required, including the Comprehensive Plan. This level of intergovernmental coordination is also driven by objectives and policies within the Intergovernmental Coordination Element of the Comprehensive Plan.

In addition to these actions, the Jefferson County Board of County Commissioners and the City of Monticello's City Council have directed staff to review existing programs, plans, and other capabilities following the major incidents: Hurricanes Idalia (2023), Hurricanes Helene and Debby (2024) and COVID-19 response. These were comprehensive reviews of the impacts of these disasters upon citizens, infrastructure, and property formalized into "after action" reports that included recommendations and other direction incorporated where appropriate into these existing plans, policies, and programs.

The LMS Working Group is an integral part of this continued evaluation and review. As hazard mitigation funds have become available following Idalia and Helene, local government staff and other non-profit organizations have used the LMS process to refine existing hazard mitigation initiatives and develop new programs and projects to address various hazards identified in this plan.

The Comprehensive Plan was updated in 2025. Although these plans, policies, and programs will be continually refined and updated as necessary to accommodate the lessons learned from recent incident responses, there are no proposed changes to the Comprehensive Plan or the accompanying ordinances and regulations addressing hazard mitigation. Any proposed changes will be reviewed by the Planning Department and the two local government growth management departments for consistency with the Comprehensive Plan, and brought to the Jefferson County Board of County Commissioners and/or the City of Monticello's City Council for consideration.

The future of each jurisdiction, for this LMS planning period is remain the status quo. The current method of communication, evaluations, plan implementation is working for the population of the county and volume of projects in progress. As the county grows and project responsibilities increase, the county and the LMS Working Group will investigate more avenues for funding and administration. At the current time, the county does not have the funding to expand upon its capabilities over the next five years.

4.3 Existing Policies, Programs, and Resources

This section is intended to summarize all existing authorities, policies, programs, and resources available to accomplish hazard mitigation within Jefferson County.

Authorities

The Jefferson County Division of Emergency Management and the Sheriff's Office are responsible for maintaining and updating plans and procedures necessary to be prepared for, respond to and recover from disaster situations. These plans include the Jefferson County Comprehensive Emergency Management Plan, the Jefferson County Local Mitigation Strategy and various county Continuity of Operations Plans. The Jefferson County Division of Emergency Management maintains an Emergency Operations Center and has a staff of two to carry out its mission. The Division of Emergency Management has a full-time Emergency Director who works with city/county agencies on emergency preparedness, response and recovery activities.

Monticello-Jefferson County Comprehensive Plan

The Monticello – Jefferson County Comprehensive Plan is a joint policy plan that directs long range growth and development in both Monticello and Jefferson County. The Comprehensive Plan is comprised of multiple elements, each addressing certain aspects of the community. Each element is made up of aspirational goals, measurable objectives, and strategic policies. Goals are the long-term ends to which programs and activities are ultimately directed. Objectives are specific, measurable, intermediate ends that are achievable and mark progress towards goals. Policies are programs and activities conducted to achieve identified objectives and goals. There are several goals, objectives, and policies in the Comprehensive Plan that address hazard mitigation. These include:

- **Policy FLU-1-1(2):** (Referring to future land use) - Standards for the mitigation of the effects of new development to maximize compatibility with existing adjacent land uses.
- **Policy T-2-1:** (referring to traffic/road development) – mitigation of road construction in land use development in order to reduce affects of increasing erosion or flooding.
- **Policy CME-2.1.4:** The recommendations of any interagency hazard mitigation report, which addresses future flood losses and in response to a Presidential Disaster Declaration shall be incorporated into the County's Disaster Plan.

- **Policy CME-2.1.3:** The County shall require that impacts on the transportation system relative to hurricane evacuation be evaluated and mitigated as part of the development approval process.
- **Objective CME-2.1:** Protect the population from the effects of hurricane storms and also delays in evacuating storm areas by prohibiting future settlements from being built within the Coastal High Hazard Area as shown on the Future Land Use Map.
- **Policy CIE-1-2(E):** Continue to provide advanced mapping facilities, capabilities, and equipment for the Property Appraiser's Office to facilitate better appraisals in case of a disaster such as a hurricane, tornado, flooding, as well as to provide GIS mapping support to assist other departments such as Planning, Road, Solid Waste, Fire/Rescue, and Sherriff, etc., for planning, maintenance, etc.

Flood Ordinance Reference

As of on April 2025, Jefferson County, Florida, updated its floodplain regulations under Ordinance 2025-03. This ordinance created Section 11-168 of the County Code, adopting updated technical amendments for the Florida Building Code, specifically regarding minimum building elevations in flood hazard areas. It also amended Ordinance 11-20 of the code relating to the basis for establishing flood hazard areas. This also repealed Section 10-22 of the code related to Florida Building Code-Building Amendments.

Jefferson County Building Codes (also adopted by the City of Monticello)

The building codes of the County have multiple areas where they have incorporated mitigation efforts. The only hazards represented in the building codes are for wind, flood, and severe storms. Fire hazards are mentioned but only relate to structure fires, not wildfires. Below are the related codes and ordinances that pertain to mitigation types of topics.

- Code of Ordinances
    - Severe Weather
        - Section 50-5.4.2 – Street design standards
        - Section 50-1.3.0 – Definitions used throughout the chapter.
        - Ordinance No. 2023-07 – Provision for Stormwater Management System and all-weather access road(s) installation
    - Flooding
        - There are 74 codes and ordinances that govern flooding in the County. These incorporate methods of mitigating flooding in the county and the LMS Committee utilize these when planning for mitigation projects to ensure they meet code requirements. Although the committee can also recommend changes to the codes and ordinances as they see the need, to date, this has not been necessary or done. When the county suggests changes to building ordinances copies of the recommendations are given to the LMS Committee and the committee has the opportunity to opine on them to ensure consistency with the mitigation efforts

in the county. This is a rare occurrence as not many changes have been made in the five years.

- Severe Wind
  - Section 11-202 – Anchoring
  - Section 10-21 – Permit Requirements
  - Section 50-4.5.2 – Special uses allowed in a shoreline protection zone.

- Suwannee River Water Management District also incorporates building codes through Chapter 40B-4, F.A.C. – Works of the District
  - The county also follows these to ensure compliance and support the work of the LMS Committee

Coastal High Hazard Area: The county's Comprehensive Plan, Coastal Element Policy 2.1.1, defines the Coastal High Hazard Area (CHHA) "as the area seaward of currently established CCCL and shall include FEMA-designated V zones (V = velocity zone, the area where wave action is most destructive)." This definition of the CHHA is adequate for describing the most active area of the coast to establish where building codes must be most stringent to prevent the destruction of coastal structures from the wave action of coastal storms. However, it may be helpful to consider other kinds of vulnerability. For example, the CHHA could be based on the evacuation zone of a category 1 hurricane. This would reflect the hazard posed by coastal flooding from a typical low-magnitude hurricane. Another possible enhancement could be a policy to review and update the CHHA after a hurricane to include areas where a high level of storm damage occurred. This review and revision process could also be part of the review and revision of the LMS.

Development in the Coastal High Hazard Area (CHHA):

Local Development Codes: The County has implemented coastal development codes but has not imposed stricter standards than the state because it lacks the resources to enforce regulations. Issues that need addressing and coordination with state agencies for remediation and mitigation are:

- Enclosure of the area underneath the elevated portion of coastal structures.
- Location and design of septic systems in erosion-prone areas.
- Enforcement of stormwater permits.

From the county's point of view, these issues might be solved with more vigorous enforcement of state rules and permits by state agencies. Coordination between local governments and state agencies might improve the ability to understand the areas of jurisdiction and improve the enforcement or implementation of existing policies.

Building Codes: Codes are implemented and enforced. A possible enhancement would be to extend the coastal building zone to encompass the entire coastal community. This zone currently extends 1,500' from the shore and buildings within this zone require a variety of specific building techniques (such as number of nails per foot and anchoring techniques) to make structures more weather resistant. Building more than 2000 square feet must also be engineered (certified by an engineer to meet minimum requirements for weather resistance).

Post-Storm redevelopment: There is not a specific post-storm redevelopment plan other than the usual provisions to favor land uses and avoid infrastructure and critical facilities in

the CHHA. The LMS could identify specific mitigation measures and policies for post-storm redevelopment. In addition, the LMS, or a portion thereof, could serve as the redevelopment portion of the county's Comprehensive Plan.

Flood hazards and Stormwater: Undeveloped coastal areas experiences stormwater or flash flooding during heavy rainfall. Current stormwater regulations are minimal and the county relies on state enforcement of stormwater permits to address potential stormwater problems with respect to new development. However, state regulations only address larger developments (5 acres or more).

Evacuation: Policies exist for evacuation. In practice, most evacuation coordination occurs through county's Board of County Commissioners and Division of Emergency Management. The traffic capacity on US 98 should be increased to facilitate the evacuation of residents from the county's coastal region. In addition, evacuation consideration needs to be given anticipation of future development in the county's coastal region.

Non-Flood Hazards: The county's Comprehensive Plan does not address non-flood hazards. Non-flood hazards are addressed in the County's Comprehensive Emergency Management Plan (CEMP) but no specific county-wide land use or development policies that consider mitigation of non-flood hazards exist, other than minimal attention to severe wind hazards. The LMS should identify policies to minimize non-flood hazards such as fire, hazardous materials, transportation accidents and severe wind.

Hazard Awareness: No policies substantially address hazard awareness, although the county's Division of Emergency Management publishes hurricane and flooding awareness materials. Additional measures might include posting high water marks along river banks and shorelines, publishing insurance rates for improved building standards, and posting evacuation information in rental properties, resort properties, and real estate sales contracts.

Local Mitigation Strategy

The Jefferson County Local Mitigation Strategy (LMS) is the accepted plan for how to reduce the risk natural, man-made and technological hazards pose to the community. The essential elements of the LMS include risk assessment, hazard identification and vulnerability analysis, vulnerable properties and estimated losses, hazard mitigation goals and objectives and potential funding sources. These elements of the LMS the efforts of the community to redevelop after a disaster. As the governing mitigation plan for the City of Monticello and Jefferson County, the LMS are consistent in their priorities, policies and procedures.

Comprehensive Emergency Management Plan

The Jefferson County Comprehensive Emergency Management Plan (CEMP) establishes uniform policies and procedures to effectively coordinate resources in response to natural, man-made and technological emergencies. It outlines direction and control of emergency situations from the Board of County Commissioners to the Division of Emergency Management. The Recovery Function of the CEMP outlines how the transition from response to recovery is managed and the activities conducted during the recovery phase. The

Mitigation Function is a summation of the Jefferson County Local Mitigation Strategy and includes a brief discussion of concept of operations, pre-disaster mitigation planning and funding opportunities. The CEMP, which is updated on a regular basis in coordination with the LMS, is reviewed in more detail in the Plan Integration section of this plan.

Continuity of Operation Plans

The Continuity of Operations Plan (COOP) identifies essential functions and core responsibilities of the agency. It establishes backup plans and identifies alternate locations for agencies to function with if their facility is impacted during an emergency. If properly implemented, COOPs assure that the essential functions continue without interruption. This is essential in assisting a community to return to normal operations as quickly and safely as possible following a disaster or other emergency event.

Normally after a catastrophic disaster, if government agencies can maintain a minimum level of service in an organized manner, a community can begin long-term recovery activities sooner. Jefferson County Division of Emergency Management maintains COOPs for the following agencies:

- Emergency Management/Sheriff's Office
- Court House
- Jefferson County Fire Rescue

Participation in the National Flood Insurance Program

Flooding is one of the common natural hazards encountered in Jefferson County and the City of Monticello. Because of the risk it presents to local property owners and others, Jefferson County and the City of Monticello both participate in the National Flood Insurance Program (NFIP).

Flood insurance is not typically provided in a homeowner's policy, and so it must be purchased separately. Depending on a home's location, flood insurance may be a required purchase as a

Condition of a mortgage. Because the ability to buy or rent a home is critical to the economic and social stability of most community, the NFIP was developed by the federal government to assist homeowners and renters with flood insurance if their community participates in the program. The NFIP is administered by FEMA. The goals of this program include:

1. Decrease the risk of future flood losses.
2. Reduce the costs and adverse consequences of flooding.
3. Reduce the demands and expectations for disaster assistance after floods.
4. Preserve and restore the natural and beneficial values of floodplains.

To qualify for subsidized federal flood insurance, a community must join the NFIP and agree to enforce sound floodplain management standards. The Jefferson County Division of Emergency Management works closely with the Planning and Building Departments to map areas that are prone to frequent floods and track repetitive loss properties. At this time

according to the Planning Department, Jefferson County does not have any repetitive loss properties in the county. After a disaster all damaged structures are inspected and the damage documented the office also maintains flood mitigation information for the county citizens to review on flooding issues, which include retrofitting, safety, insurance, maps, historical data, and many other sources of information.

Community Rating System

The LMS will continue to contribute to the maintenance requirements for the Community Rating System (CRS) for both the City of Monticello and Jefferson County. The Working Group regularly coordinate on an quarterly basis with Planning Department, who serve as the LMS Vice Chairman, on the production of the annual CRS report. The CRS annual report is also integrated into the LMS update. If projects are completed or deleted or if new projects are identified, the LMS is modified to reflect these changes.

Land Development Code

As discussed in Section 3.3.3, floodplain management regulations have long been incorporated into both the City of Monticello's and Jefferson County's land development regulations, based on policies in the Monticello – Jefferson County Comprehensive Plan, and flood mitigation initiatives in the LMS and the CRS. Mitigation projects included in the LMS will continue to be considered as part of amending existing ordinances and regulations and in the drafting of new ordinances and regulations for inclusion in the Code.

When necessary, the Planning Department can and does recommend changes to the land development code for both the City of Monticello and Jefferson County.

Hazard Mitigation Grant Program (HMGP)

The Hazard Mitigation Grant Program is authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 93-288 as amended). It is a partnership that is designed to assist states, local governments, private non-profit organizations and Indian Tribes in implementing long-term hazard mitigation measures following a major disaster declaration. The objectives of the Hazard Mitigation Grant Program are: 1) To prevent future losses of lives and damage to property due to disasters; 2) To implement state or local hazard mitigation plans; 3) To enable mitigation measures to be implemented during immediate recovery from a disaster; and 4) To provide funding for previously identified mitigation measures that benefit the disaster area.

Pre-Disaster Mitigation Grant Program (PDM)

The PDM program was authorized by Section §203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended by Section §102 of the Disaster Mitigation Act of 2000, to assist communities to implement hazard mitigation programs designed to reduce overall risk to the population and structures before the next disaster occurs. The Florida Division of Emergency Management solicits project applications and encourages local governments to identify and submit applications that address eligible

mitigation activities that are designed to reduce your community's overall risk to hazards. The strength of the funding available has wavered through the years, and has been significantly reduced from prior year's levels.

1. The Jefferson County Fire Rescue provides fire protection and advanced life support first- response emergency medical services to the city of Monticello, Florida and Jefferson County.
2. The Jefferson County Road Department maintains all County roads, mosquito control, and conducts transportation
3. The City of Monticello provides a range of utility services. The City engages in potable water, wastewater treatment (sewer), and solid waste pickup services.
4. The Jefferson County Sheriff's Office provides police patrol, detective service, court protection, coroner service, and county prison operation for the unincorporated area of Jefferson County. The Monticello Police Department provides public safety services for the city of Monticello, Florida.
5. The Jefferson County Planning Department's mission is to provide accurate information, creative and effective planning recommendations, and expertise in the areas of long-range land use

These comprehensive plans, policies, and programs are intended to help guide residential and non-residential development and redevelopment, protect the natural and built environment, provide security and emergency services, and help mitigate against natural and technological hazards.

4.4 Hazard Mitigation Initiatives and Projects

4.4.1 History

As part of developing the original LMS, the LMS Working Group ranked and prioritized a set of mitigation projects. The purpose of this ranking was to indicate the overall importance of the project to local mitigation efforts by rank ordering those initiatives that support public health and safety, protect people, and protect real property in the most vulnerable areas. As part of this effort, the Working Group developed a list of criteria, performance measures.

For the 2025 update, the list of hazard mitigation projects were reviewed by the Working Group following Hurricane Idalia and Helene to reflect changes in priorities, accomplishments, and outdated initiatives. These changes were largely based on experiences and lessons learned after Hurricane Idalia, which made landfall in Keaton Beach, Florida on August 30, 2023. The Working Group decided to keep the existing list of projects.

4.4.2 Evaluation and Prioritization of Mitigation Projects

The LMS Working Group evaluates each proposed mitigation action to assess level of impact using the Social, Technical, Administrative, Political, Legal, Economic, and Environmental (STAPLEE) cost-benefit review format. The STAPLEE format enables the LMS Working Group to review each project against the criteria for ranking (see below). The LMS Working Group ranks the measure receiving the highest score as a high priority. In the event of ties, the LMS Working Group may list mitigation measures higher if the LMS Working Group perceives them to have the greatest benefit/cost or impact the greatest number of people. The LMS Working Group reviews the mitigation initiatives and prioritization score draft results during regular meetings. The score may change as priorities in Jefferson County change and with the addition of new mitigation actions. The working group chose to use a four adjective/point scoring system to avoid the bias of picking the middle or neutral rating on similar five-point scales.

- **4 - High – Strong countywide value; should be prioritized.**
- **3 - Moderate – Clear benefit; worthwhile with available funding/resources.**
- **2 - Low – Limited benefit or narrow applicability; lower priority.**
- **1 - Minimal – Little demonstrated value or not suitable at this time.**
- **0 - Ineligible – project has no value to Jefferson County or does not meet criteria.**

The LMS Working Group scores every subcategory with a High (4 points), Moderate (3 points), Low (2 points), Minimal (1 point) or Ineligible (0 points) ranking. The working group decided not to use the subcategory point criterion and instead use the same criteria questions as part of the meeting discussion. For projects that have tie scoring points, the working group votes on the two or three projects on where to place them in the ranking. Projects are scored at the LMS Working Group meetings and/or when new projects are selected to be placed on the list if an interim or special meeting is called.

Category	Criteria	LMS Working Group Discussion Points for Weighting
Social	Community Acceptance	Is the proposed action socially acceptable to the community?
	Effect on Segment of Population	Are there equity issues involved that would mean that the project treats one segment of the community unfairly?
	Effect on Community	Will the action cause social disruption?
Technical	Technically Feasible	Will the proposed action work?
	Long-term Solution	Does it solve a problem or only a symptom?
	Create more Problems	Will it create more problems than it solves?
	Reasonable Timeframe	Can the responsible agency complete the project in a timely fashion?
Administrative	Capability to Implement	Does the responsible agency have enough funding, staff, and technical support available to implement the action?
	Funding secured and allocated	Does the responsible agency have funding secured and allocated for the project?
	Community Provide Maintenance	Will the responsible agency be able to provide long-term maintenance for the project?
Political	Politically Acceptable	Is the action politically acceptable?
	Local Champion	Is there a local champion for the project to lead the effort?
	Public Support	Is there public support both to implement and to maintain the project?
Legal	Authority to Implement	Is the responsible agency authorized to implement the proposed action?
	Side Effects/Taking	Are there legal side effects?
		Could somebody construe the activity be as a taking?
	Comply with Environmental Regulations (3)	Does the activity comply with environmental regulations? Will the activity require environmental permits?
	HOA Bylaws/Deed Restrictions	Does the project meet HOA Bylaws/Deed Restrictions?
	Potential Legal Challenge	Will someone challenge the activity?
Economic	Reasonable Cost	Do the benefits exceed the costs?
	Burden Economy	What burden will this action place on the tax base or local economy?
	Contributes to Economic Goals	Does the action contribute to other community goals, such as capital improvements or economic development?
	Additional Jobs	Does the action promote the addition of jobs in the Community or the County?
Environmental	Impact Floodplain/Wetland	Will the action influence floodplains or wetlands?
	Natural Environment	Will the action influence the natural environment?
	Environmental Regulatory Approvals	Will the action need environmental regulatory approvals?
	Utility and Transportation Systems	Will the action influence utility and transportation systems?

Existing Mitigation Projects

The general economic evaluation of each mitigation project were performed by determining the estimated costs, benefits, and available funding sources for each project. The estimated cost ranking system serves the purpose of assessing the potential cost of implementing each mitigation project. It also provides an indicator of the extent to which benefits may be maximized according to a cost-benefit review of the proposed projects and their associated costs. Estimated costs were previously derived through consultation with LMS Working

Group. Estimated cost rankings for each mitigation project and the results of this prioritization procedure are included in Attachment 6.4. The LMS Working Group met on November 12, 2025, and voted on and discussed the current Mitigation Project List.

Changes in Projects since 2021

The list projects in the 2021 LMS was modified in 2023 following Hurricane Idalia. For the 2026 update, the LMS Committee changed the wording and order of this list to reflect changes in priorities, accomplishments, and outdated initiatives. These changes were largely based on experiences and lessons learned after Hurricane Idalia, which made landfall just east of Steinhatchee, Taylor County, Florida on August 30, 2023.

All of the initiatives and projects in the 2021 LMS have been brought into this updated edition of the LMS. They have been updated as to their estimated timeframes and costs, benefit/cost review, and status. The order of these initiatives has not changed, and none of them have been eliminated, deleted, or deferred.

5 Plan Maintenance

5.1 Monitoring, Maintenance, Evaluation, and Updating

The Working Group recognizes that to be effective, the *Monticello-Jefferson County Local Mitigation Strategy* must be reviewed and updated on a regular basis. To assist in this process, the LMS Working Group has developed the following procedures:

1. The Working Group, with the assistance of the LMS Chairman, will meet quarterly to review the local mitigation strategy, including evaluating the project list in Attachment 6.4, to ensure it is current, that the prioritization is still valid, and that it reflects changing conditions within the community. This will provide adequate time to incorporate any needed revisions prior to the next grant cycle. The Working Group will meet earlier or on a more frequent basis if needed, such as in a post-disaster environment.
2. The review of the local mitigation strategy will include:
    a. Deletion of completed projects and/or programs;
    b. Identification of new mitigation projects;
    c. Evaluation of the impact of recommended changes to city and/or county plans and ordinances identified during the local mitigation process; and
    d. Evaluation of any changes in the hazard identification and vulnerability assessment.
3. As needed, additional public and private sector interests will also be invited to participate in the review. Changes recommended by the Working Group will be forwarded

To Jefferson County Division of Emergency Management for consideration. The Jefferson County Planning Department, as coordinators for the LMS process, will forward recommended revisions to the City and County Commissions for final review and determination of action as directed by the Committee Chair.

The Jefferson County Division of Emergency Management is the lead agency for the required five-year update of the LMS. The Emergency Management Director will monitor the implementation of the plan and track the progress of the projects, along with the points of contact who oversee the respective project. They will also start preparations for the five year update at least 18 months prior to the expiration of the LMS. This will include meeting with the LMS Working Group to lay out the process to review the various parts of the plan, holding regular meetings as necessary with this Working Group, and setting up public meetings for additional stakeholder input. The Emergency Management Director will also put a draft copy of the updated LMS on the Planning Department's website, along with a description of the process, and write the agenda items for both the Jefferson County Board of County Commissioners and the Monticello City Council to adopt the updated LMS.

5.2 Coordination with Other Planning Documents and Activities

The following section details past and future efforts to coordinate the LMS with other local planning mechanisms, and coordination with the City, County, and jurisdiction wide.

Monticello- Jefferson County Comprehensive Plan

The Comprehensive Plan serves as the planning document that guides development in both the City of Monticello and Jefferson County. The Intergovernmental Coordination Element was amended to incorporate policies describing the role and function of the LMS Working Group. The Conservation Element was amended to include policies to increase wildfire mitigation efforts, which were promoted through the LMS. Policies and objectives in the Land Use Element were amended to include goals and actions prescribed in the LMS Prioritized Mitigation Initiatives List. Lastly, the Glossary was amended to add the terms 'hazard' and 'hazard mitigation' to the language and terms within the Comprehensive Plan.

If the LMS Working Group identifies any additional changes related to hazard identification and mitigation, they will be transmitted to the Emergency Management through the LMS Chairman for consideration. If specific text and/or map changes are recommended or directed by the elected officials of the City of Monticello and/or Jefferson County, the Planning Department will file a text and/or map amendment to the Comprehensive Plan as part of the regular Amendment Cycle (or Out of Cycle if necessary).

Jefferson County Comprehensive Emergency Management Plan

The LMS Working Group will continue to coordinate with the Jefferson County Sheriff's Office and the Jefferson County Emergency Manager to ensure policies, programs, mitigation plan and mitigation actions are consistent between the LMS and the Jefferson County Comprehensive Emergency Management Plan (CEMP). Any updates to the CEMP will consider and incorporate or reference relevant hazards, proposed mitigation alternatives, and other related information. Planning Department staff are provided FEMA training through the Emergency Manager and help staff the Emergency Operations Center during disaster and training events. This coordination extends to the LMS through the Working Group.

5.3 Community Rating System

The LMS will continue to contribute to the maintenance requirements for the Community Rating System (CRS) for both the City of Monticello and Jefferson County. The Working Group regularly coordinates on a quarterly basis with the Planning Department, which serves as the LMS Vice Chairperson, on the production of the annual CRS report. The CRS annual report is also integrated into the LMS update. If projects are completed or deleted or if new projects are identified, the LMS is modified to reflect these changes.

5.4 Public Participation

The LMS Committee acknowledges that public participation is an important part of the plan maintenance and update processes for the local mitigation strategy. All LMS meetings are publicly noticed by the quarterly meeting of the Working group (which is required by the bylaws). At least one public meeting will be noticed and held annually to solicit further input on changes to the LMS or its planning procedures. This meeting may be held in conjunction with a commission workshop or with a scheduled agenda item regarding LMS activities before either the City or the County commission.

In addition to public notification for all LMS meetings, making the 2021 LMS document available to the public online allows a broader proportion of the population the opportunity to participate in the LMS planning process. Citizens can contact Jefferson County Division of Emergency Management staff via an e-mail link on the webpage or by telephone through the number listed on the webpage with questions, concerns or comments.

A draft copy of the 2021 LMS update was added to the website prior to the public meeting to give the community time to review the draft document and attend the meeting with questions and suggestions for revisions. The final draft was posted online for at least 30 days prior to the adoption of the LMS by the City and County commissions. After the updated LMS was approved and adopted by both the City and County Commissions, the adopted version was added to the webpage.

To encourage public participation and increase community knowledge regarding the current LMS update and related planning processes, a copy of the 2026 LMS will also be maintained on the Jefferson County Division of Emergency Management's website at https://www.jeffersoncountyfl.gov/p/county-departments/emergency-management