

2021

City of Monticello / Jefferson County Local Mitigation Strategy



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Jefferson County Emergency Management

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2020 LOCAL MITIGATION STRATEGY TABLE OF CONTENTS

Executive Summary	IV
<u>Chapter 1 –Planning Process</u>	1
1.1 History of the Monticello-Jefferson County Local Mitigation Strategy	1
1.2 Jurisdiction	3
1.3 Purposed and Benefits of Hazard Mitigation	3
1.4 LMS Working Group Members	4
1.5 Current LMS Update and Plan Adoption Process	8
1.6 Incorporation of Supporting Information and Documents	10
1.7 Planning Process	12
1.8 Opportunity for Public Involvement	13
<u>Chapter 2 – Risk Assessment and Vulnerability Analysis</u>	15
2.1 Jefferson County Profile	15
2.2 Physiographic and Environmental Characteristics	16
2.3 Future Development Trends	17
2.4 Hazard Identification	20
2.5 Hazard Risk and Vulnerability	23
2.6 Hazard Vulnerability Modeling	25
2.7 Hazard Vulnerability Assessment	31
2.8 Hurricanes and Tropical Storms	31
2.9 Severe Storms	49
2.10 Drought	63
2.11 Flooding	66
2.12 Extreme Temperatures	77
2.13 Wildfires	82
2.14 Sinkholes	91
2.15 Invasive Plants and Animals	99
2.16 Diseases, Epidemics, and Pandemics	107
2.17 Technological and Societal Hazards	121
2.18 Public Infrastructure Failure	122
2.19 Hazardous Materials	134
2.20 Transportation Incidents	142
2.21 Terrorism	142
2.22 Critical Facilities	144
2.23 Risk Summary	144
<u>Chapter 3 – Mitigation Strategy</u>	145
3.1 Hazard Mitigation Goals and Objectives	145
3.2 Existing Policies, Programs, and Resources	147

3.3 Hazard Mitigation Initiatives and Projects	151
<u>Chapter 4 - Plan Maintenance</u>	159
4.1 Monitoring, Maintenance and Updating	159
4.2 Coordination with Other Planning Documents and Activities	160
4.3 Public Participation	161

Appendices

A. Resolutions Adopting the Monticello-Jefferson County LMS	162-171
B. LMS Bylaws	172-176
C. LMS Committee Agendas, Meeting Minutes & Public Meeting Notices (2015 – 2019)	177-304
D. Southern Wildfire Risk Assessment Summary Report for Jefferson County (2020)	305-336
E. Hurricane Michael HMGP Mitigation Projects Summary Ranking	337-345
F. 2020 HMGP Proposed Projects Endorsement Letter	346-348
G. Glossary of Natural Hazard and Mitigation Terms	349-355
H. Advertisement, Minutes, and Social Media 2021	356-360

EXECUTIVE SUMMARY

Jefferson County has the State's shortest coastline and is the only county that touches Georgia and the Gulf of Mexico. The *Jefferson County Local Mitigation Strategy* (LMS) is a plan intended to identify and reduce the community's long-term vulnerability to natural and technological hazards through various forms of mitigation.¹ The Plan is organized into four chapters:

- Chapter 1 describes the role of the LMS Working Group in developing the overall mitigation strategy and its component initiatives.
- Chapter 2 is the Hazard Identification and Vulnerability Assessment. This section provides an overview of the types of natural and technological hazards the County is vulnerable to, and a history of these hazards and their effects. Natural hazards identified and assessed by the working group include hurricanes and tropical storms, thunderstorms, tornados, lightning, drought, floods, wildfires, sinkholes, storm surge/tsunami, dam failure, exotic pest infestations, and diseases and pandemics. Technological hazards include hazardous materials storage and transportation, terrorism, aviation incidents, and energy failures/disruptions.
- Chapter 3 describes ongoing and proposed mitigation programs, policies, and projects identified by the Committee and the Working Group. These include program and policy initiatives such as ordinances or updates to existing codes and plans, and capital improvements such as infrastructure upgrades or replacements. Each mitigation initiative identified in this Chapter includes potential funding sources where available.
- Chapter 4 describes the process to monitor, evaluate, and update the plan over the next five years. This section also describes procedures intended to keep the public actively involved in local hazard mitigation planning, and how the LMS will be consistent and incorporated into other local planning mechanisms where appropriate.

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 Working Group meets quarterly to review and update this strategy. These procedures are detailed in Chapter 4, while the LMS Working Group bylaws are included in Appendix B.

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 2021 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 provide a plan for applying these funds.

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.

Chapter 1 – Planning Process

This Chapter covers the planning process that the Local Mitigation Strategy Working Group utilized to develop the LMS.

1.1 History of the Jefferson County Local Mitigation Strategy

In the 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 remains valid, was 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 at that time entered into an inter local 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, other businesses and churches were also included, as well 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 Commissioner 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 inter local 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, and 2017 with input provided by the Working Group, the Apalachee Regional Planning Council, and the Capital Chapter of the American Red Cross, with oversight review by 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 general public and neighboring communities are encouraged to become involved with the Jefferson County Local Mitigation Strategy to gauge the plan effectiveness and help identify local hazards to be placed on 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 local newspaper - The Monticello News there were several opportunities to include the public citizens 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. The previous LMS plan was advertised offering the

public an opportunity to review the draft plan prior to 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.

Note: A copy of the 2021 LMS plan will be available at the Jefferson County Emergency Management Division 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>

1.2 Jurisdiction

The *Jefferson County Local Mitigation Strategy* is a joint product of the City of Monticello and Jefferson County with input providing by various non-profits, 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 as well as those residing in the City of Monticello. Since the initial adoption of the LMS, the Working Group has continued to meet on a regular basis and to endorse specific projects for funding through Federal pre- and post-disaster assistance programs. As of 2017, the LMS Committee has submitted requests for approximately \$1,591,640.13 million dollars 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 specifically for the participating local governments are provided separately where necessary. 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 entirety of Jefferson County.

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 a high hazard area. 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, tornados, floods, hazardous material spills, fires, and sinkholes are some of the hazards experienced by many communities in Florida. 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, tornados, 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 damaged or isolated by storms. 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 government's money and time, a plan to address hazards can help stretch and save often scarce revenues and the time necessary to rebuild critical facilities and infrastructure. Community infrastructure such as roads, drainage systems, water systems, and wastewater treatment plants built in high hazard areas are 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 that are 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 significant revenue sources. Keeping critical facilities out of high hazard areas or armoring these and other facilities where necessary can reduce the costs associated with damages 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 can 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 by an inter-local agreement between the City of Monticello and Jefferson County to undertake long-range mitigation planning and implementation of 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.

We can meet via zoom. They are notified by newspaper, email, social media, and by telephone.

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 are collectively referred to in this document as the LMS Committee. The representative agencies and organizations are listed below.

The inter-local 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.

Existing Committee

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).

Agency / Department Postion/Title	Primary Role(s)	Status
Jefferson County Sheriff's Office Sheriff Alfred Mac McNeill	Public Safety	Voting
Jefferson County Department of Public Works Beth Letchworth, Director	Drainage, Flood Control, Roads and Evacuation; Solid Waste Management, Animal, control, Code enforcement	Voting
Jefferson County Emergency Management Paula Carroll, Director	Emergency Management	Voting
City of Monticello Department of Department of Underground Utilities and Public Infrastructure Raymond Clark, City Manager	Drainage, Flood Control	Voting
Jefferson County Fire/EMS Department Derrick Burrus, Chief	Fire; Emergency Rescue; HazMat Response	Voting
City of Monticello Police Department Fred Mosley Chief	Public Safety	Voting
Jefferson County Planning / Building Department Shannon Metty	Mitigation Planning; Comprehensive Planning	Voting
Jefferson County Property Appraiser Geographic Information Systems Angela Gray	Environmental and Property Data; Mapping	Voting
Capital Area Chapter, American Red Cross Melissa Walgamott	Public Safety; Emergency Response	Voting
Florida Division of Emergency Management Brian Bradshaw	Agency Liaison	Voting
Florida Agricultural and Mechanical University John Lily	University Liaison	Voting
Council of Neighborhood Associations Diana Bullock	Homeowner Community Liaison	Voting
Jefferson County Area Chamber of Commerce Katrina Richardson	Business Community Liaison	Voting
Apalachee Regional Planning Council Anthony Carpanini	Regional Planning	Voting
Florida Department of Health in Jefferson County Kim Allbritton	Agency Liaison	Voting
Jefferson County Clerk's Office Kirk Reams	Business, Legal ,Policy, Procedures, and finical	Voting
Jefferson County Coordinator Parrish Barwick Shannon Metty Interim County Coordinator	Chief Administrator	Voting
Jefferson County School Eydie Tricquet	Superintendent, Principal	Voting
Jefferson County Road Department Tom Kisamore	Public safety, emergency response	Voting

Officers

2020 LMS Committee Chair:

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2020 LMS Committee Vice-chair:

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Under the LMS Committee bylaws, the LMS coordinator is a designated staff of the Monticello-Jefferson County Planning Department, a functionally consolidated department that reports to both the City and County Commissions. The LMS coordinator provides staff support for all Working groups meetings and communications. The LMS coordinator serves as a clearinghouse for local government activities and is responsible for placing most actions regarding the LMS on the agenda for the appropriate commission. The LMS coordinator is also the primary point of contact with the 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 four chapters of the LMS are discussed below.

Chapter One – The Planning Process

This chapter describes the planning process through which the LMS has been updated. Chapter 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.

Chapter Two – Risk Assessment and Vulnerability Analysis

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 chapter 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, and 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 selected hazards using State of Florida Department of Revenue data to estimate potential dollar losses of vulnerable structures.) Hazus modeling runs were conducted with Hazus-MH 2.0 for the 2020 update of the Monticello-Jefferson County Post-Disaster Redevelopment Plan.

Hazards evaluated by the Working Group resulting 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 was renamed Invasive Plants and Animals for clarity.
2. Hazard profiles for **Thunderstorms, Tornados, 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 storm water impacts and other hazards, as well as hazard mitigation initiatives, were reviewed and updated in the LMS within the hazard profiles in Chapter Two and the list of mitigation initiatives in Chapter Three. These developments over the last decade include the Monticello RD Wastewater Treatment Plant

Based on direction provided to staff from the Jefferson County Board of County Commissioners, this edition of the LMS has been updated with information regarding the local homeless population and their vulnerability to certain 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 2013. The total estimated cost for the project was \$8.3 million with a \$6.2 million loan and approximately \$2.1 million was obtained through the rural department grant funds. Also The new Fire/Rescue building on Martin Drive.

Chapter Three – Mitigation Strategy

The LMS Working Group incorporated changes in local government and other stakeholder priorities since the last plan update as part of the evaluation of the goals and objectives and mitigation initiatives. Initiatives are those specific program and/or projects that are 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, estimated costs of mitigation initiatives were included in a new prioritized list of Hazard Mitigation Initiatives for the 2021 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 utilities 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 specifically details mitigation actions and local plans for addressing local vulnerability to these hazards.

Chapter Four – Plan Maintenance

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

The LMS was recently updated by the Jefferson County Emergency Management with input provided by 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 Michael 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 direction provided to staff from the Jefferson County Board of County Commissioners through the Hurricane Michael After Action Report, the LMS has been updated with information regarding and 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 Planning Department's website at <http://www.jeffersoncountyfl.gov/>

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.

2016 Jefferson County Local Mitigation Strategy Update

The information included in the 2016 LMS update served as the primary data source for the 2021 LMS update process, as well as providing the structure and format for the update.

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.

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

These annual progress reports are required by FEMA as part of the City of Monticello's participation in the National Flood Insurance Program (NFIP), and to maintain their standing in the associated municipal Community Rating System (CRS). These reports are useful in that they review the initiatives in the LMS on an annual basis and are provided to the public annually.

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) meets 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 is regularly updated by the LMS Coordinator. 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 2016 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.

LMS Planning Process and Schedule (2016-2021)

May 2021

The LMS Committee will work on the approval for the 2021 LMS update process at their regular meeting on February 11, 2021. At that meeting, the LMS Committee members will discuss the LMS update process and the new FEMA requirements. Planning Department staff sought authorization from the Committee to create an LMS Update Subcommittee composed of interested stakeholders to provide hazard mitigation data and other information for the 2016 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 are publicly noticed, including added to the Planning Department's calendar of meetings and other events, and open to the public.

Winter/Spring 2020

Elements of the 2021 LMS update were presented to the LMS Committee at their annual meeting on February 18, 2020/June 17, 2020/October 19, 2020. The Committee authorized staff to submit a draft to the Division of Emergency Management to begin the review process.

Spring 2019

A draft copy of the 2016 update was submitted to the Florida Division of Emergency Management for review in early 2016.

The advertised Jefferson County and City of Monticello council meetings for adoption by resolution of the 2016 LMS update were held respectively on May and June 2016.

1.8 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 Appendix 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 2021 update advertised will be publicly noticed, and citizens had a minimum of 30 days to review and comment on the draft LMS before the City and County Commissions adopted the 2021 update to the LMS. Citizens were also provided an opportunity to speak during these public meetings.

Despite these efforts to solicit community input, there were no public comments formally received as part of this process. However we did have two citizens join one meeting. This was also true of the 2015 and 2017 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 2021 LMS update, including maps and appendices, is available on the Jefferson County's website at <http://www.jeffersoncountyfl.gov/>, and a description of the LMS update process. Contact information for the Jefferson County Planning Department.

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-2021 to provide an opportunity to educate the public and solicit feedback on this update. Any comments received by the public will be considered as previously described.

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Chapter 2 – Risk Assessment and Vulnerability Analysis

2.1 Jefferson County Profile

Jefferson County is located in the heart of "the other Florida," the Florida of rolling hills and stately oaks draped in wispy Spanish moss. Situated in the state's Panhandle, it is the only county that extends from Georgia on the north to the Gulf of Mexico on the south. Known as the "Keystone County," Jefferson County, in Florida's northwest Panhandle region, encompasses an area of approximately 637 square miles. It is bordered on the north by Thomas and Brooks Counties, Georgia; on the south by the Gulf of Mexico; on the west by Leon and Wakulla Counties, Florida; and on the east by Madison and Taylor Counties, Florida. Jefferson County is served by Interstate 10; U.S. Routes 19, 27, 90, 98; and CSX railroad. The 2010 population of Jefferson County was reported to be 14,761 (U.S. Department of Commerce, Bureau of the Census, 2010).



For people who are looking for plenty of elbow room, Jefferson County offers thousands of wooded acres and gently rolling hills. Ponds and lakes of all sizes liberally dot this pastoral landscape, covering a full 11 square miles of the county's 609 square mile area. Lake Miccosukee alone sprawls over 6200 acres along our northwest border, offering bountiful fishing and recreational opportunities. Three major rivers, the Wacissa, Aucilla and St. Marks cover hundreds more acres of the county, running through miles of virtually untouched forest and marshland

“Official 2019 population estimates for the City of Monticello and Jefferson County are presented in Table 2.

Table 2: Jefferson County Population Estimates by Jurisdiction, 2010 – 2019.³

Jurisdiction	Population Census, 2010	Population Estimate, 2019	% Change 2010-2018	% of Total Population (2019)
Monticello	2,508	2,409	-3.9%	100%
Countywide Total	14,761	14,246	-3.5%	100%

According to the University of Florida, Bureau of Economic and Business Research (2019), Jefferson County’s population is expected to experience steady population growth rates for the next 25 years. Table 2.2 displays the range of population projections for Jefferson County through 2045.

Population growth in Jefferson County and the City of Monticello slowed in the period 2010-2014 but has increased since then. The estimated population growth for entire county has grown by 6.0 percent from 2010-2018 (approximately 17,000 new residents). Table 3 below indicates population estimates for the County to the year 2040.

² Jefferson County Profile. Wikipedia, The Free Online Encyclopedia, https://en.wikipedia.org/wiki/Jefferson_County,_Florida

³ Sources: U.S. Department of Commerce, Bureau of the Census (1930-2019), University of Florida, Bureau of Economic and Business Research (2019 estimate)

Table 3: Population Projections for Jefferson County, 2010 – 2040.⁴

Year	City of Monticello	Countywide Total
2010	2,506	14,761
2020	2,437	14,394
2030	24,426,200	15,300
2040	26,428,700	15,600

2.2 Physiography and Environmental Characteristics

Jefferson County is comprised of three main physiographic regions:

1. Northern Highlands
2. Gulf Coastal Lowlands
3. River Valley Lowlands.

Jefferson County is in the northern part of the Florida Peninsula. The region known as the "Big Bend" for the arc of Gulf of Mexico shoreline where the panhandle meets the peninsula. It is bordered to the north by Georgia; on the west by Leon and Wakulla Counties; on the east by Taylor and Madison Counties; and to the south by the Gulf of Mexico. The county covers 392,365 acres, or 611 square miles. It is about 39 miles from north to south and about 24 miles wide at the widest point. There are about six miles of coastline. The county is known as the "Keystone County," the only county bordering Georgia and extending to the Gulf. Two major physiographic divisions, the Northern Highlands and the Coastal Lowlands are separated by the Cody Scarp. The northern two-thirds of the county is dominated by the Tallahassee Hills. Most of the crop and livestock farming on sandy to sandy loam soils are located in the northern region of the county. Most residential population is located there, too. The southern third of the county is relatively flat coastal, poorly drained sands in commercial timber production. The county is located in the St. Marks and Aucilla River Basins. Wetlands in the county include acres of Lake Miccosukee along the northwest boundary shared with Leon County, over 80,000 acres in the Aucilla Wildlife Management Area, and the St. Marks National Wildlife Refuge. At an elevation of 235 feet above sea level, at the Courthouse, Monticello is one of the highest points in Florida. The USDA-Natural Resources Conservation Service (formerly Soil Conservation Service) classifies environmental systems in 26 Ecological Communities of Florida comprehensive, modern soil survey was initiated by the USDA Soil Conservation Service in the early 1980s with the support of the Board of County Commissioners and the Soil and Water Conservation District.

The survey was completed in 1986 and published manuals (1989) are now available. The survey has detailed discussions of the classified soil series. Data associated with use and management of soils for crop and pasture, forest/woodlands, recreation, wildlife habitat and human development make the manual an indispensable tool for natural resource managers. Engineering, physical and chemical properties of soils are discussed. Contact the Monticello Field Office of the US Department of Agriculture, Natural Resources Conservation Service (formerly SCS) or the Jefferson County Cooperative Extension Service office for soils information, a copy of the soil survey and resource management guidelines.

⁴ Sources: University of Florida, Bureau of Economic and Business Research

2.3 Future Development Trends

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 2045 planning horizon. The Future Land Use Map (Figure 2.2) within the Comprehensive Plan is based upon these assumptions, as well as the population projections of the community 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 lower than the average of the community.

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 through 2030 within the USA. This pattern of development was selected to minimize urban sprawl and to focus growth where infrastructure is in place.

A number of 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 on

Real and Tangible Property Just Value

As stated by the Department of Revenue Property Tax Oversight, 01/2015, the total Just Value of the real property parcels and the tangible personal property for the County are: \$1,603,325,434- see Table 3.2.

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

Total Just Values of the Real Property and Tangible Person Property in Jefferson County

Property Type	# of Parcels	Just Value
Single Family Residential	3,848	\$323,004,605
Multi-Family Residential	84	\$10,475,352
Agricultural	3,347	\$577,868,397
Vacant Residential	2,233	\$40,627,144
Vacant Non-Agricultural	94	\$3,498,526
Commercial	280	\$39,263,962
Government & Institutional Taxable	544	\$70,735,078

Monticello-Jefferson County Local Mitigation Strategy 2020 Update

Homestead Agricultural	975	\$198,133,561
Government & Institutional Non-Taxable	768	\$175,863,848
Total Real Property Value	12,173	\$1,439,470,473
Tangible Personal Property		\$157,387,629
Railroad and Private Carlines		\$6,467,332
Total Just Value		\$1,603,325,434

Protection of the natural environment. Protected environmental features include steep slopes, wetlands, floodplains, floodways, listed species habitat, 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, helps 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 2021, 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 rate is 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 was 17,267 in 2010 and is projected to be 16,831 in 2020.⁵

These development trends and their accompanying land use plans have been considered by Planning staff and the LMS Working Group. The most significant effects on the initiatives comes from the increase in critical facilities, including infrastructure such as electric transmission and distribution facilities, sewer lift stations, and traffic control facilities. Additional impacts from development also impact flood zones and affected structures and place additional 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 potential 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 in response to any significant land use plans and development trends.

⁵ <https://www.bebr.ufl.edu/population>

2.4 Hazard Identification

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.” Technological and societal hazards are those that are created by humans.

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 4 lists the federal disaster declarations that have been issued since 1982.

Table 4: Recently Declared Disasters in Jefferson County, 2001 – 2020.⁷

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

There have been a few local events that have not warranted a federal disaster declaration. For instance, Governor Rick Scott declared a state of emergency for 26 counties on April 30, 2014 to support emergency response operations for communities inundated by heavy rains.

The 2016 LMS previously provided a thorough examination of the historic impact, documented damages, vulnerable populations and potential economic impact associated with each hazard. These hazards data, have been updated by the LMS Update Committee as part of the 2021 LMS update process.

⁷ Source:

FEMA Disaster Declarations Summary

<https://www.fema.gov/media-library/assets/documents/28318>.

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):

Natural Hazards:

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
8. Invasive Plants and Animals
9. Diseases and Pandemics_

Technological and Societal

Hazards:

- 1) Public Infrastructure Failure
 - (a) Telecommunications
 - (b) Cybersecurity
 - (c) Electricity, Water, and Sewer
 - (d) Dams
- 2) Hazardous Materials (Storage and Transportation)
- 3) Transportation Incidents
 - (a) Roadways
 - (b) Railway
- 4) Terrorism
 - (a) Violent Acts
 - (b) Biohazards
 - (c) Cyber Attacks

This updated and modified list of hazards reflects the lessons of Hurricanes Hermine, Irma, Michael, and Sally the record of effects of particular 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.

2.5 Hazard Risk and Vulnerability

Risks are rated to help prioritize mitigation objectives and initiatives. Ratings normally 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 measuring and rating of risk, while technically quantifiable, is nevertheless not an exact science. 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 2021 LMS update, the Working Group elected to continue to use the voting system, augmented with institutional knowledge, historical and local knowledge and experience, and professional judgement. The Risk Rating scores and ranking for each hazard is listed in Table 5.

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:

1. **High Risk:** High probability of occurrence, with loss of life and property damage.
2. **Medium Risk:** Medium probability of occurrence, with a low probability to loss of life, or property.
3. **Low Risk:** Low probability of occurrence, with a very low probability to loss of life or property damage.

The probability of occurrence is based on records of historical occurrence. These probabilities are classified and measured as follows:

1. **Highly Likely:** Annually or a 100% chance per year
2. **Likely:** Once in less than 10 years or a 10-100% chance per year
3. **Occasional:** Once per 11-100 years or a 1-9% chance/year
4. **Unlikely:** Once in greater than 100yrs or a less than one percent chance in 100 years

The probability of occurrence is summarized for each hazard within each Estimated Impacts, Probability, and Extent section. Where specific data are not available, or are minimal, professional judgement and institutional knowledge has been utilized to try to estimate the probability of occurrence.

Table 5: Jefferson County Hazards by Risk Rating, 2019.

High Risk	Medium Risk	Low Risk
Hurricanes and Tropical Storms	Energy Failures	Storm Surge
Severe Storms (Thunderstorms, Tornadoes, Lightning)	Drought	Extreme Temperatures
Flooding	Hazardous Materials	Wildfires
		Sinkholes
		Invasive Plants and Animals
		Diseases, Epidemics, and Pandemics
		Dam Failure
		Transportation Incidents
		Terrorism

At this time, the U.S. Department of Homeland Security is encouraging the use of a Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR) three-step process to meet the main 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.

⁸ <https://www.fema.gov/media-library/assets/documents/165308>.

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.

2.6 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.

Previous editions of the LMS have used a variety of software models to estimate vulnerability to hazards. These modeling efforts and their results are summarized below.

TAOS Model

The Arbitrator of Storms (TAOS) is a computer model used to produce a detailed risk analysis in a GIS environment. In previous LMS updates and reports, TAOS data was the primary data source used to assess vulnerability to natural hazards in Jefferson County. However, more recent MEMPHIS data has been incorporated into the majority of hazard profiles and natural hazard vulnerability analyses. Where appropriate, TAOS models have been employed to assess vulnerability not captured by the MEMPHIS analysis. A brief discussion of TAOS data follows.

Monetary damage estimates are generated by TAOS based on varying storm intensities and the values of the structures located on specified parcels as indicated within the Property Appraiser's database. Some parameters employed by the model include wind speed, water depth, wave height, and construction material. Land uses are divided into categories such as single family, multi-family, hotels, industrial, etc. while structures are classified as residential wood frame, mobile home, and commercial using the Jefferson County tax rolls.

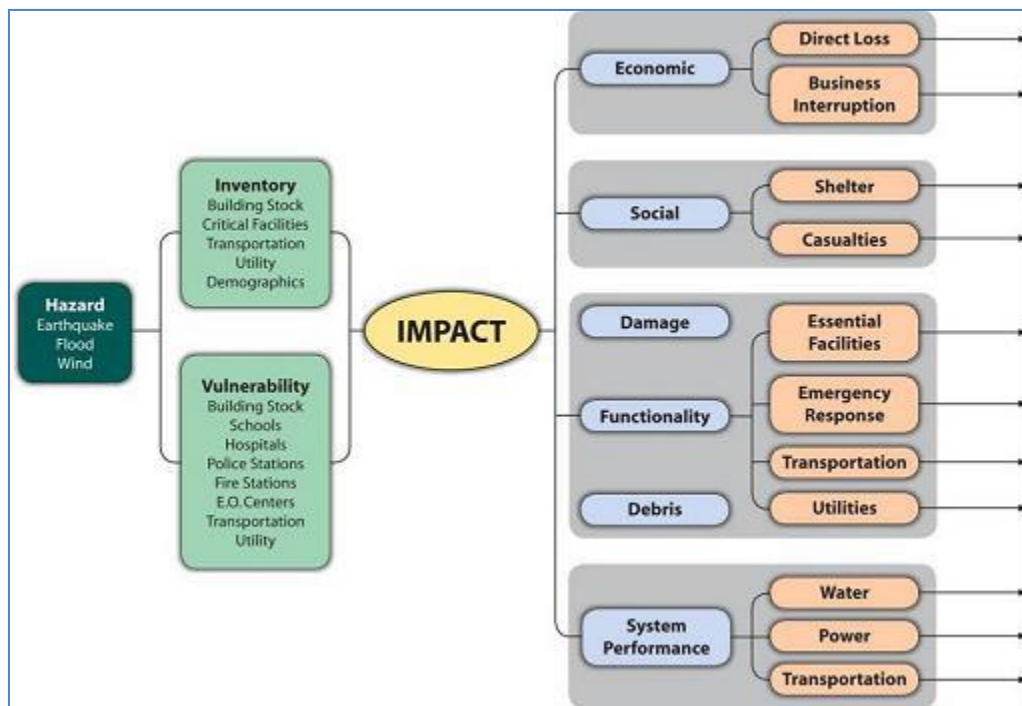
ELVIS

The Economic Loss Vulnerability Index System (ELVIS) allows communities to compare the relative risk of various natural hazards through the use of loss costs. A loss cost is the long-term average of the damage a hazard causes, which are typically expressed in terms of loss per \$1000 of exposure per year.

Like MEMPHIS, ELVIS data is derived from analysis of U.S. Census Bureau data, Department of Revenue (DOR) data, and other information related to local conditions (historical hazard occurrences, topography, etc.).

Damages and losses) on the built environment. The figure below displays the data input and output of the Hazus-MH 4.2 model.

Figure 2: Conceptual Model of Hazus-MH Methodology



Source: Alachua County PDRP

a. Hazus-MH 4.2 Hurricane Wind Model

The Hazus-MH 4.2 Hurricane Wind Model is an improvement over existing loss estimation models because it uses a wind hazard-load-damage-loss framework. New features in the Hazus-MH 4.2 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 functions to permit calculation of additional losses to manufactured housing due to trees blow down.

Replacement costs were derived from Means Square Foot Costs for residential, commercial, industrial and institutional building occupancy classes. The Means publication is a nationally 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. More detailed information on Hazus-MH 4.2 is available through FEMA at: www.fema.gov/hazus/.

Hazus-MH 4.2 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 from and should be used only to understand relative risk.

b. Hazus-MH 4.2 Flood Model

The Hazus Flood Model produces loss estimates for vulnerability assessments and plans for flood risk mitigation, emergency preparedness and response and recovery. Losses can be calculated for a single flood event, or for a range of flood events allowing for annualized estimates of damages. Incomplete or inaccurate inventories of the built environment, demographics and economic parameters can result in uncertainty in the 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 average for a group of similar buildings.
- When using the general inventories included with Hazus, 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 is calculated based on the results of the hazard analysis through the use of 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.

i. 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.

ii. 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, it 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 effort by the user 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:

Table 6: Hazus Flood Model Analysis Levels.

	Level 1	Level 2	Level 3
Hazard	User supplied Digital Terrain or Elevation Model (DEM), typically the USGS 30-meter DEM. The Flood Model will use default hazard data including Hydrologic Unit Codes, and accumulation methodology to develop approximate stream centerlines. USGS regression equations and gage records will be used to determine discharge frequency curves.	User supplied flood stream cross-sections attributed with elevations, or lines of Base Flood Elevation (BFE). Coastal users will supply polygons attributed with the BFE. A flood boundary of some form is required. User supplied hazard data pre-processed via the FIT. DEM consistent with their FIT data.	Similar to Level 2 although the user will likely work with Hydraulic models outside of the Flood Model and the FIT. User will be required to pre-process the data through the FIT.
Inventory	Hazus default data. Allocation of census block data via statistical analysis, and broad assumptions for first floor height based on foundation distributions. Agriculture products, vehicles, essential facilities, some transportation and utility facilities.	User supplied inventory data, such as Tax Assessor data, and inventory data developed via site surveys processed through the Comprehensive Data Management System (CDMS) tool. Users enhance the first floor height and other parameters.	High quality data re: building values, flood vulnerabilities, contents, occupancies, etc, extended to industrial and other high-value facilities.
Damage Curves	Broad regional default curves based on available FIA or USACE depth damage curves. Library of curves available for user selection. User may create their own function using library curves as guides.	User specifically modifies the existing curve library for local practices.	User-input curves based on detailed building surveys, specific crop conditions etc.
Damage Estimation	Area weighted damage estimates based on the depth of flooding within a given census block. Losses developed for general building stock, essential facilities, vehicles, agricultural products, select transportation and utility features.	Consistent with Level 1, estimation enhanced by improved hazard data and detail in inventory data and modification to damage curves.	Consistent with Level 1, estimation enhanced by improved hazard data and detail in inventory data and modification to damage curves.
Direct Loss/ Impacts	Cost of repair / replacement, shelter needs, temporary housing, vehicles, crop & livestock losses.	Consistent with Level 1, estimation enhanced by improved hazard data and detail in inventory data and modification to damage curves.	Consistent with Level 1, estimation enhanced by improved hazard data and detail in inventory data and modification to damage curves.
Induced Losses	Debris developed from direct damage to buildings based on floor areas from the general building stock.	Consistent with Level 1, estimation enhanced by improved hazard data and detail in inventory data and modification to damage curves. Site specific debris generation currently not available in the Flood Model, must be based on census block attribution of floor area.	Consistent with Level 1, estimation enhanced by improved hazard data and detail in inventory data and modification to damage curves. Site specific debris generation currently not available in the Flood Model, must be based on census block attribution of floor area.

iii. Riverine Hazard Analysis: Depth to Flood Methodology

The flood risk assessment was performed using a depth-to-flood approach to compute loss estimates and was generated by comparing Base Flood Elevation (BFE) data with a Digital Elevation Model representing ground elevation. The assessment is computed for a 100-Year return period. The source for 100-year base flood elevations and associated floodplains is the FEMA Digital Flood Insurance Rate (DFIRM) data. The effective DFIRM data for Jefferson County was published in 2008 pursuant to the FEMA Map Modernization initiative. The floodplain delineations and BFE data was updated in 2009.

National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements. 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 flood plain management regulation these efforts help mitigate the effects of flooding on new and 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.'

Source: <https://www.fema.gov/national-flood-insurance-program>

Compliance with NFIP

The City of Monticello and Jefferson County participate with 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 DFIRM 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

2.7 Hazard Vulnerability Assessment

This next section describes Jefferson County and the City of Monticello’s vulnerability to natural hazards. Each hazard described in this section as follows:

1. General Description and Location
2. Historical Occurrences
3. Estimated Impacts, Probability, and Extent
4. Vulnerability Summary
5. Risk Assessment (by jurisdiction)

2.8 Hurricanes and Tropical Storms

This section combines the hazard profile and vulnerability analysis for tropical storms and hurricanes because these events are so closely related. Storm surges are also included because they are associated with these hazards.

General Description and Location

Tropical storms and hurricanes are both types of tropical cyclones, which is the generic term for a non-frontal synoptic scale low-pressure system over tropical or sub-tropical waters with organized convection (i.e. thunderstorm activity) and definite cyclonic surface wind circulation.⁹ A tropical storm is defined as a tropical cyclone in which the maximum sustained surface wind speed ranges from 39 mph to 73 mph, and a hurricane is a tropical cyclone with maximum sustained surface wind speeds over 74 mph. Hurricane season lasts from June 1st to November 30th of each year, with August and September being the peak months of tropical storm and hurricane activity.

A tropical storm or hurricane is likely to result in damage from both wind and floodwaters. However, less severe storms may produce the same effects, particularly flooding. Hurricanes and tropical storms affect the entire Gulf coast of the United States, including Jefferson County and City of Monticello, as well as much of the Atlantic coast, including coastal and inland counties such as Jefferson County.

The Saffir-Simpson Scale organizes storms by various categories of wind speed. As storm intensity moves up the scale, the potential threat to public health and safety increases. However, lower category events can still cause extensive damage, if not from high winds then from substantial periods of rainfall. Table 7 provides a summary of different category storms as ranked by the Saffir-Simpson Scale.

ALERT MESSAGING

If any type of hazard should occur once we are notified we use Everbridge/Nixle IPAWS

To notify the community. It depends on the severity of the incident of the type of message we send. We also use social media to assist us in notifying the public.

⁹ <http://www.aoml.noaa.gov/hrd/tcfaq/A1.html>.

Table 7: Saffir-Simpson Hurricane Scale.¹⁰

Category	Wind speeds
Five	≥70 m/s, ≥137 knots ≥157 mph, ≥252 km/h
Four	58–70 m/s, 113–136 knots 130–156 mph, 209–251 km/h
Three	50–58 m/s, 96–112 knots 111–129 mph, 178–208 km/h
Two	43–49 m/s, 83–95 knots 96–110 mph, 154–177 km/h
One	33–42 m/s, 64–82 knots 74–95 mph, 119–153 km/h

Storm Surge

A storm surge is defined as an abnormal rise in sea level accompanying a hurricane or other intense storm. The height of the surge or rise is the difference between the observed level of the sea surface and the level that would have occurred in the absence of the cyclone. Storm surge heights are usually estimated by subtracting the normal or astronomic high tide from the observed storm tide. Storm surges are evaluated separately from rain-driven flooding. Storm-generated waves on top of the storm surge will create an even greater high-water mark.

¹⁰ NOAA Hurricane Research Division “Frequently Asked Questions.”

¹¹ <http://en.wikipedia.org/wiki/Tsunami>.

Historical Occurrences

Since 1851, a total of 76 storms have passed within 95 miles of Jefferson County, including 50 tropical storms, and 26 hurricanes. (Many of these tropical storms were hurricanes upon landfall but were reduced in intensity by the time the storm track passed near Jefferson.) Jefferson County has been hit by many hurricanes over the last 170+ years, including four major (Category 3 or stronger) hurricanes. Even hurricanes that make landfall in places such as Pensacola, Panama City, among other places, can be felt here (e.g. Dennis '05, Ivan '04, Opal '95, Michael '18). The most recent hurricane (not including tropical storms) to directly impact the Jefferson County area was Hurricane Michael on October 10-11, 2018, and Sally in September 16, 2020.

Statistically, hurricanes directly impact Monticello on average once every eight years (22 hurricanes in the last 171 years). According to historical hurricane climatology data, the frequency of storms comes in multi-decade cycles where there will be long stretches between active periods of numerous storms.

Tropical storms conditions are much more common than hurricanes for this region of Florida. Tropical storms strike on average once every 3.5 years (50 tropical storms in 171 years). The last tropical storm to directly impact Florida State University was Tropical Storm Debby in 2012.

Table 8 below summarizes the tropical cyclone activity to have been felt on the Main Campus of Florida State University since Hurricane Kate in 1985, plus a few extra historical hurricanes.

Table 8: Tropical Storms/Hurricanes Affecting Campus of Florida State University since 1985.¹²

Year	Storm	Maximum Sustained Wind	Maximum Wind Gust	Maximum Rainfall	Impact Summary
1953	Hurricane Florence				
1964	Hurricane Dora				
1966	Hurricane Alma				
1972	Hurricane Agnes				
1985	Hurricane Kate	53 mph	87 mph	approx. 3.00 in	
1995	Hurricane Opal	32.2 mph	63.3 mph	1.25 in	
1995	Tropical Storm Erin	31.1 mph	39.1 mph	0.80 in	
1996	Tropical Storm Josephine	28.8 mph	39.1 mph	7.79 in	
1998	Tropical Storm Georges	27.6 mph	33.4 mph	6.42 in	
1998	Tropical Storm Earl	33.4 mph	48.3 mph	5.41 in	
2001	Tropical Storm Allison	10.13 in			
2004	Tropical Storm Jeanne	33.4 mph	48.3 mph	1.21 in	
2004	Hurricane Ivan	38 mph	54.1 mph		
2004	Tropical Storm Frances	47.2 mph	59.8 mph	2.48 in	
2005	Hurricane Dennis	38 mph	50.6 mph	6.64 in	
2006	Tropical Storm Alberto	34.6 mph	38 mph	3.25 in	
2008	Tropical Storm Fay	26.5 mph	26.5 mph	15.62 in	. Widespread community flooding.
2009	Tropical Storm Claudette	25.3 mph	39.1 mph	2.1 in	
2012	Tropical Storm Debby	27.6 mph	36.8 mph	5.5 inches on campus. 15-25 inches in Leon/Wakulla counties	Severe flooding . trees down power outage
2016	Hurricane Hermine	47 mph	64 mph	5.54 inches	power outage Some trees down on campus. 80% of city-county without power for up to 1 week. Numerous trees and power lines down throughout community.
2018	Hurricane Michael	44 mph	71 mph	3.34 inches (TLH Airport) 3.56 (Tallahassee Mall area)	Trees down on campus. 90% of the city-county without power for up to a week. Numerous trees and power lines down throughout community making commuting almost impossible.
2020	Hurricane Sally	105mph		20 inches rainfall	Flooding, trees down, power outage, bridge outage

¹²<https://emergency.fsu.edu/resources/hazards/tropical-storms-hurricanes/tropical-storms-hurricanes-history-fsu>.

The federal National Oceanographic and Atmospheric Administration (NOAA) has created an online database of historical hurricane tracks that includes all recorded storm events to date. The following map indicates the historical track of hurricanes passing within 60 miles of Jefferson County, 1924 – 2019.

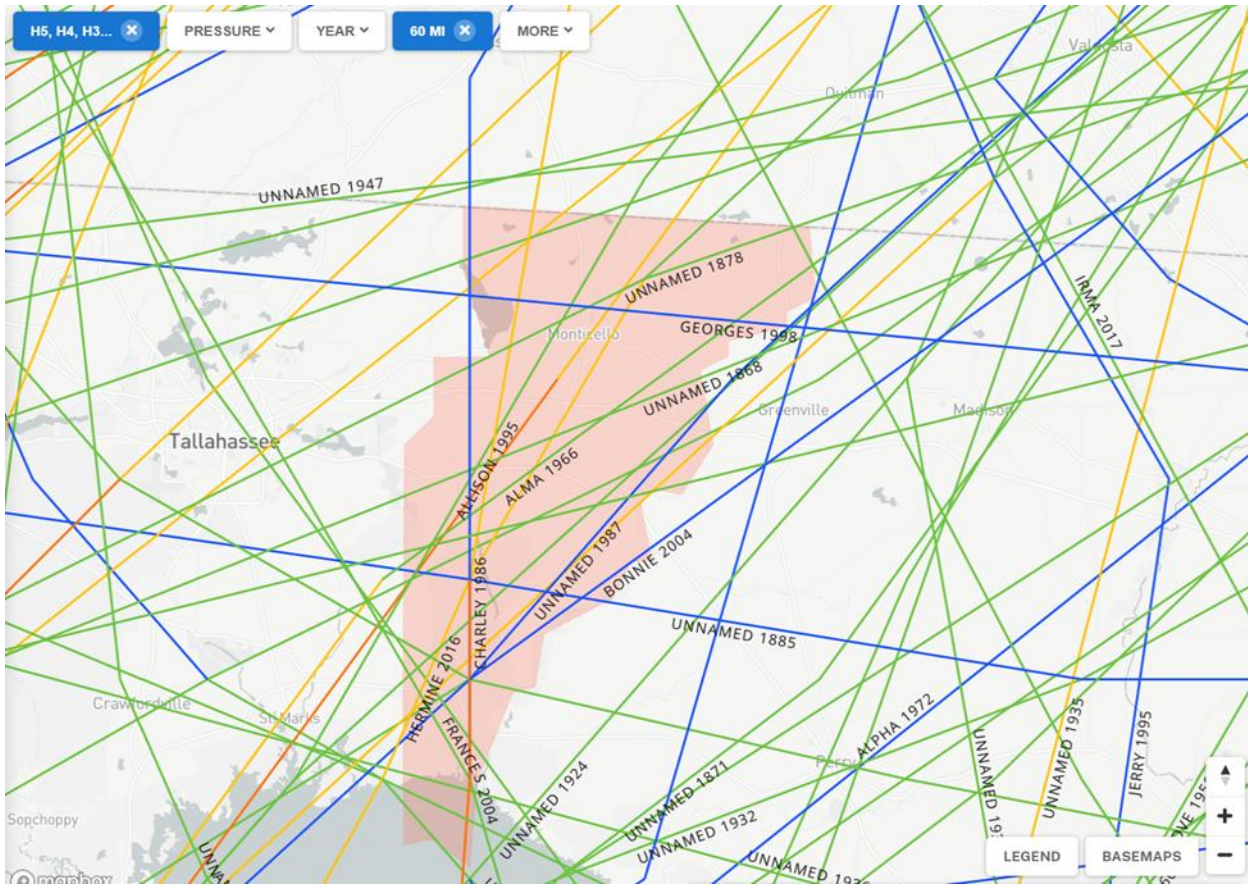


Figure 4:

Historical Track of Hurricanes Passing within 60 miles of Jefferson County, 1985 – 2019.¹³

As Figure 3 indicates, there have been many hurricanes and tropical storms passing through or near Jefferson County over time. These storms can create significant damage even at relatively low intensities. Although Jefferson County’s inland position affords some protection against flooding from storm surge, tropical storms and hurricanes can produce localized flooding from heavy rainfall and damage to trees and structures from strong winds, including power outages.

Two significant hurricane events have occurred since the last LMS update in 2016. On September 2, 2016, Hurricane Hermine, the first hurricane to make landfall in Florida since Tropical Storm Bonnie and Tropical Storm Frances in 2004. High winds from the hurricane knocked down many trees in northwestern Florida, some of which fell onto power lines and roofs. The resulting power outages affected about 325,000 people, roughly 1% of all homes and businesses in the state. In Jefferson County,

¹³NOAA Historical Hurricane Tracks, 2014, <http://csc.noaa.gov/hurricanes/#>.

much of the impact consisted of downed trees and power lines. About 62% of residents were left without electricity.¹⁴

On October 10, 2018, Hurricane Michael made landfall as a high-end Category 4 hurricane near Mexico Beach, Florida with maximum sustained wind speed of 155 mph and a minimum pressure of 919 mb. Hurricane Michael was an historic and unprecedented storm as the third-most intense hurricane ever to make landfall in the continental United States and the single most intense to impact the Florida Panhandle in recorded history. Hurricane Michael inflicted widespread damage throughout the Panhandle and Big Bend area which spread well inland as Michael remained at hurricane strength into southwest Georgia and brought tropical storm force gusts as far north as Atlanta.

On September 16, 2020, Hurricane Sally made landfall as a Category 2 Hurricane with maximum sustained winds of 105 mph. The re-intensification and sudden track to the east by Sally prior to landfall caught many by surprise. Additionally, its slow movement caused coastal areas between Mobile, Alabama, and Pensacola, Florida, to be in the northern eye wall for hours. Over 500,000 customers in Louisiana, Alabama, Florida, and Georgia lost power and parts of I-10, including the Escambia Bay Bridge, were shut down. Widespread tornado, special marine, severe thunderstorm, and flash flood warnings were issued, including several flash flood emergencies, and over 20 inches of rainfall.

Probability of Landfall

The United States Landfalling Hurricane Probability Project is a joint effort between the Tropical Meteorology Project at Colorado State University (CSU), Fort Collins, CO and the GeoGraphics Laboratory at Bridgewater State College, Bridgewater, MA. Coordinated by Dr. William Gray, the project has calculated the tropical cyclone landfall and wind gust probabilities for the eastern United States coastline from Brownsville, Texas to Eastport, Maine. The United States Landfalling Hurricane Probability Project web page¹⁶ can help communities assess the statistical chances of high winds resulting from tropical cyclones striking their particular region or county in any particular year.

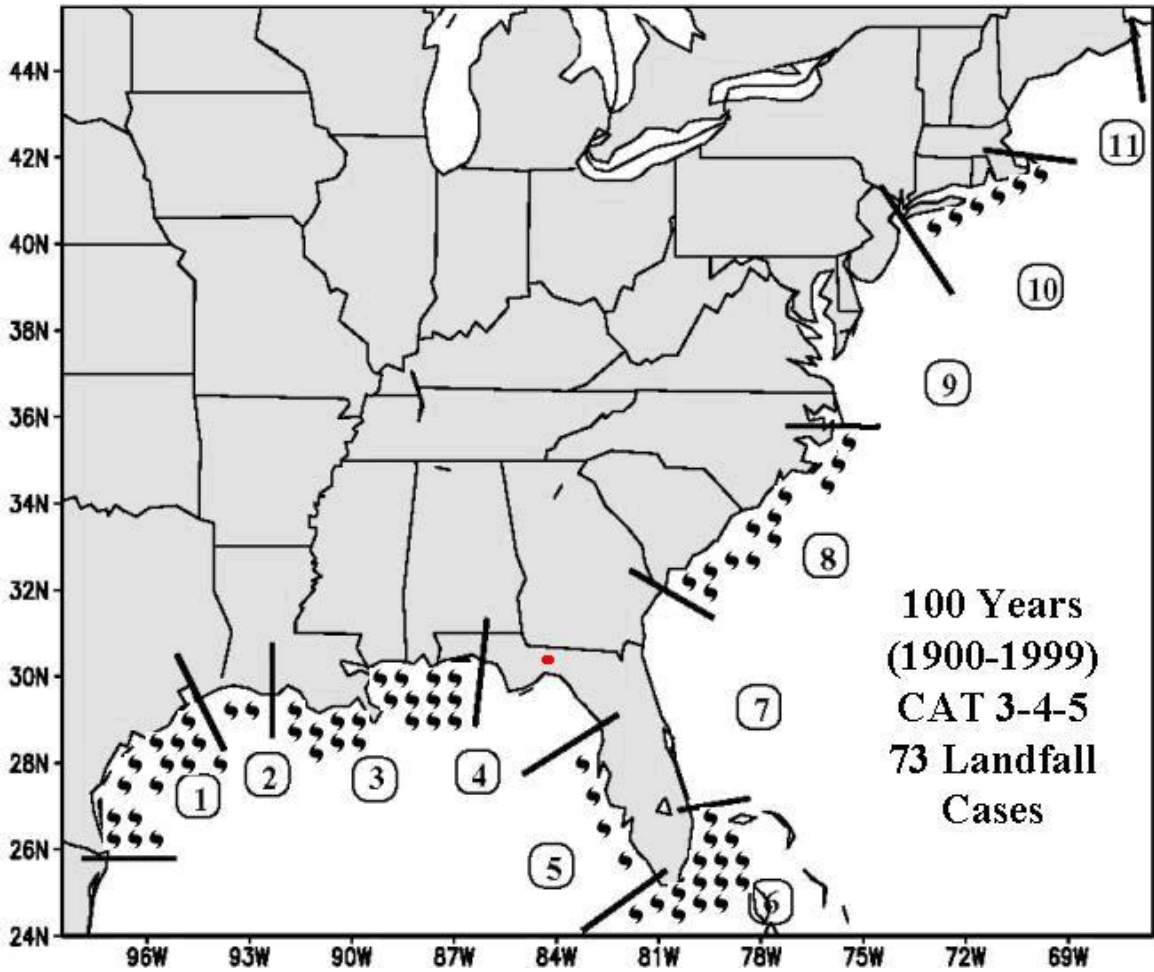
The following figure displays the Landfall Probabilities Regional Map. This map displays the division of the Gulf and Atlantic Coasts into regions based on frequency of intense or major hurricane (Category 3 to 5 on the Saffir-Simpson scale) landfalls during the 20th century (1900-1999). Jefferson County is located in Region Four (Bay, Gulf, Washington, Calhoun, Franklin, Wakulla, Jefferson, Liberty, Gadsden, Leon, Taylor, Dixie, Levy, Madison, Lafayette, Gilchrist, and Citrus counties).

¹⁴ https://en.wikipedia.org/wiki/Hurricane_Hermine#cite_note-60.

¹⁵ https://en.wikipedia.org/wiki/Hurricane_Sally#Meteorological_history

¹⁶United States Landfalling Hurricane Probability Project, <http://www.e-transit.org/hurricane/welcome.html>.

Figure 5: Landfall Probabilities Regional Map, 2014.¹⁷



The following tables display the tropical cyclone landfall and wind gust probabilities for Region Four and Jefferson County, Florida during 2019.

Table 9: 2014 Tropical Cyclone Landfall Probabilities by Region (Climatology in Parentheses), 2019.¹⁸

Region Number	Probability of 1 or More Named Storms Making Landfall in the Region	Probability of 1 or More Hurricanes Making Landfall in the Region	Probability of 1 or More Intense Hurricanes Making Landfall in the Region
4	30.5% (29.3%)	14.5% (13.9%)	1.6% (1.6%)

¹⁷Ibid

Table 10: Tropical Cyclone Landfall Probabilities by County (Climatology in Parentheses), 2019.¹⁹

County Name	Probability of 1 or More Named Storms Making Landfall in the County	Probability of 1 or More Hurricanes Making Landfall in the County	Probability of 1 or More Intense Hurricanes Making Landfall in the County	Probability of Tropical Storm-Force (>= 40 mph) Wind Gusts in the County	Probability of Hurricane-Force (>= 75 mph) Wind Gusts in the County	Probability of Intense Hurricane- Force (>= 115 mph) Wind Gusts in the County
Jefferson	4.1% (3.9%)	1.8% (1.7%)	0.2% (0.2%)	22.8% (21.9%)	6.6% (6.3%)	1.7% (1.6%)

Table 11: 50-Year Tropical Cyclone Landfall Probabilities by Region (Climatology in Parentheses), 2019.²⁰

Region Number	50 Year Probability of 1 or More Named Storms Making Landfall in the Region	50 Year Probability of 1 or More Hurricanes Making Landfall in the Region	50 Year Probability of 1 or More Intense Hurricanes Making Landfall in the Region
4	>99.9%	>99.9%	54.8%

Table 12: Tropical Cyclone Landfall Probabilities by County, 2019.²¹

County Name	50 Year Probability of 1 or More Named Storms Making Landfall in the County	50 Year Probability of 1 or More Hurricanes Making Landfall in the County	50 Year Probability of 1 or More Intense Hurricanes Making Landfall in the County	50 Year Probability of Tropical Storm-Force (>= 40 mph) Wind Gusts in the County	50 Year Probability of Hurricane-Force (>= 75 mph) Wind Gusts in the County	50 Year Probability of Intense Hurricane-Force (>= 115 mph) Wind Gusts in the County
Jefferson	86.6%	12%	8.6%	>99.9%	96.5%	55.4%

Fifty-year probabilities were included in this study because most structures are built to last at least 50 years. Therefore, construction decisions on the cost of hurricane-protecting building materials should be based on the longer period if there is a significant likelihood of a hurricane making landfall over the lifespan of a residential or other building of value.

Tables 9 and 10 indicate a relatively low probability of a tropical cyclone (tropical storm or hurricane) making landfall in 2019 in Region 4 (Big Bend coast of Florida) or Jefferson County. However, Table 12 clearly indicates that over a 50-year period, there is an 86.6% chance of a named storm making landfall in Jefferson County, and a 55.4% chance of an intense hurricane (Category 3, 4, or 5 on the Saffir-Simpson scale, which could affect all of Jefferson County if it strikes the coast within 50 miles of the City of Monticello).

The most anticipated hurricane events for Jefferson County and the City of Monticello include a slow-moving, category 1 hurricane with heavy rain, a faster-moving category 1 storm with a similar path to Hurricane Kate in 1985 and the devastating storm of 1877, or a Category 3 storm with the similar path. However, as indicated by Hurricane Michael in late 2018, there is also a possibility, albeit remote, of a Category 5 hurricane striking the Gulf Coast south of Jefferson County. Although it is likely that such a

¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid.

storm would weaken to a Category 4 by the time it reached Jefferson County, it would still be devastating across a wide region, as was Hurricane Michael.

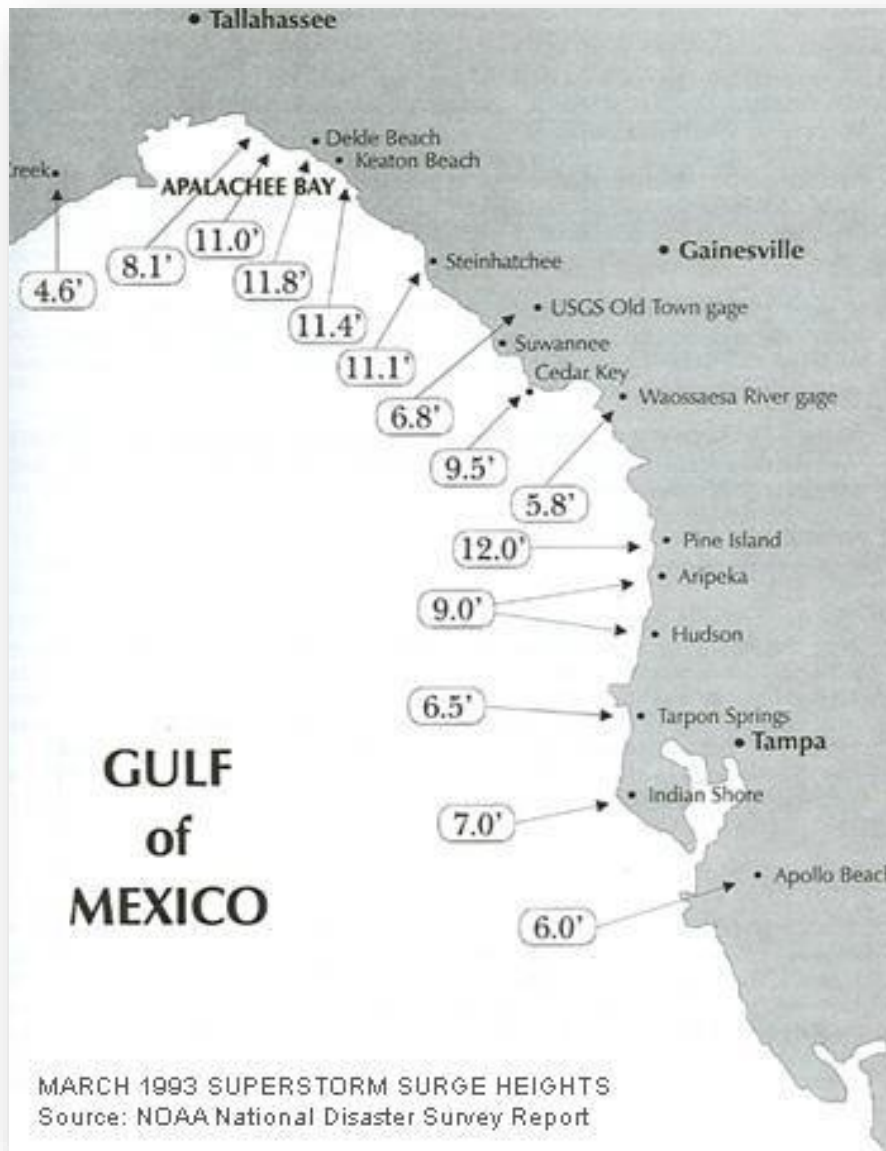
Storm Surge

The coastline (a very small area of the county), which consists of wilderness, sanctuaries, sand salt marsh is subject to storm surge caused by powerful hurricane occurrence and could cause significant flooding and shorefront or dune erosion. Also, the mouth of the Aucilla River has been affected by high waves resulting in erosion and damage to buildings. The southern portion of the county is subject to storm surge caused by tropical cyclones, storms and hurricanes, however this would depend on the category level for the hurricane. The worst case scenario for storm surge would have been from Hurricane Kate, in 1985, which made landfall at Mexico Beach, in Gulf County, with peak winds reaching 85 mph at Apalachicola, just 2 months after Hurricane Elena. The storm surge affecting Jefferson County is estimated to have been approximately 8.4 feet at Shell Point. Land falling wind and waves, associated with Hurricane Kate, resulted in the destruction of 46 buildings and damage to 15 more. Specific damage information related to Jefferson County was not recorded.

Beginning on March 12 and subsiding on March 15, 1993, a large cyclonic storm swept through the eastern coast of the North America. Named the 1993 Superstorm or the Great Blizzard of 1993, this storm stretched from Central America to Canada, and was unique for its intensity, massive size, and wide-reaching effect. The Florida Panhandle reported up to four inches of snow, with hurricane-force wind gusts and record low barometric pressures. Between Louisiana and Cuba, hurricane-force winds produced extreme storm surges in the Gulf of Mexico, which along with scattered tornados killed dozens of people.²² The Superstorm also produced substantial storm surge along the Gulf Coast from Apalachee Bay in the Florida panhandle to south of Tampa Bay. Storm surges in those areas reached up to 12 feet, higher than many hurricanes. The following figure displays estimated heights for storm surge produced by the 1993 Superstorm.

²² Storm of the Century, Wikipedia, The Free Online Encyclopedia, 2009.
<[http://en.wikipedia.org/wiki/Storm_of_the_Century_\(1993\)](http://en.wikipedia.org/wiki/Storm_of_the_Century_(1993))>

Figure 6: NOAA Estimate of Storm Surges along Florida's Gulf Coast, 13 March 1993.²³



Despite the significant heights of storm surges associated with the 1993 Superstorm, the storm surge did not reach Jefferson County.

Estimated Impacts, Probability, and Extent

The probability for storm surge is low to medium for the unincorporated coastal area in the county (at least one occurrence every 10 years to possibly every 3 years).

Hazards associated with hurricanes, and both can be tremendously destructive and deadly. These hazards include tornados, heavy rainfall, waves in coastal areas, and flooding. Storm surges of sea levels can affect the southernmost part of the County, and flooding can occur in mapped floodprone areas of the County, as well as upland areas depending on the amount, rate, and duration of rainfall.

Overall, based on these probabilities and the historical record, the probability of a hurricane or a tropical storm affecting Jefferson County and the City of Monticello is **occasional** as defined under Section

2.2.1 Risk.

1. Hurricane Wind Analysis

For comparison purposes, three deterministic scenarios were used to examine potential impact from tropical weather events. The Tallahassee Office of the National Weather Service provided two of the tropical weather scenarios which included a slow moving, category 1 hurricane with heavy rain and the devastating storm of 1877 as a category 3 storm. The Florida Division of Emergency Management (FDEM) also used the data from Hurricane Michael to create a similar scenario but with a more direct impact on Jefferson County. FDEM used the Hazus-MH 4.2 Wind Model to calculate the economic impact from these three scenarios; those data are included here and discussed.

Debris

Besides the damage severe weather (storm) events can produce, high winds can also create significant quantities of debris from downed trees, branches and damaged buildings. This debris can impede emergency management efforts; present a safety hazard for emergency and repair workers and citizens; and present significant storage and disposal issues.

A 1999 study by the Florida Department of Community Affairs was conducted to estimate how much debris may be produced by different storm intensities. The objective was to help local governments assess their capacity to collect and dispose of debris in the post-storm period. For this study, DCA utilized the TAOS model to estimate the number and type of parcels that will produce debris of 10 cubic yards/acre or more for each of the six storm intensities.²⁵

The data generated by the TAOS model are presented in Table 20. Structure types are classified as mobile homes, residential, commercial, and industrial. The winds produced by a tropical storm do not significantly contribute to the production of debris of more than 10 cubic yards/acre, as most parcels remain unaffected in the city and county. However, a Category 1 storm results in a significant increase in debris production. Affected parcel percentages for the study area range from 55-77 percent, while county percentages are much lower at 21-33 percent. This is probably due to fewer structures in the unincorporated areas. The most telling TAOS model prediction is that nearly 100 percent of all parcels will produce debris of 10 cubic yards/acre or more for the remaining storm intensities.

Table 22: Debris Produced by Tropical Storms and Hurricanes.²⁶

Structure Type	Debris Of 10 Cubic Yards Or More Per Acre ²⁷											
	Tropical Storm				Category 1 Storm				Category 2 Storm			
	City Parcels		Co. Parcels		City Parcels		Co. Parcels		City Parcels		Co. Parcels	
	#	%	#	%	#	%	#	%	#	%	#	%
Mobile Homes	2	<1	32	<1	396	55	1,081	21	724	100	5,194	99
Residential	623	2	199	<1	23,837	63	4,869	21	37,586	100	22,997	99
Commercial	11	<1	3	<1	1,658	68	154	44	2,432	100	352	99
Industrial	3	<1	1	<1	431	74	95	35	586	100	269	99
Govt./Educ.	9	<1	0	0	861	77	120	33	1,125	100	367	99

²⁵ Ten cubic yards of debris was selected as a threshold level for this analysis because it approximates the carrying capacity of a standard dump truck.

²⁶ Source: DCA, TAOS, 1999.

²⁷ All parcels are affected with 10 cubic yards or more of debris/acre in Category 3-5 storms.

Following a major storm event, there is usually significant public pressure to reinstate electrical power as quickly as possible, among other services. Electric power makes possible air conditioning, lights, preservation of food, and use of computers and cell phones, which are increasingly essential infrastructure, especially in an emergency situation.

Actions that can be taken to mitigate the potential impact of debris on local transportation and power distribution systems include the replacement of aboveground lines with buried lines, and the trimming of trees around above-ground electrical infrastructure such as poles and power lines. However, burying power lines in existing developed areas can be time-consuming and expensive, as well as impact existing trees. Additionally, underground lines may cost more to service than above ground lines, although the rate of required service may be less.

Trimming trees is regularly conducted by the City of Monticello. Many homeowners also trim trees on their property for the same reasons. Keeping trees trimmed and healthy is one of the single best actions homeowners and other property owners can take to mitigate the effects of major storms.

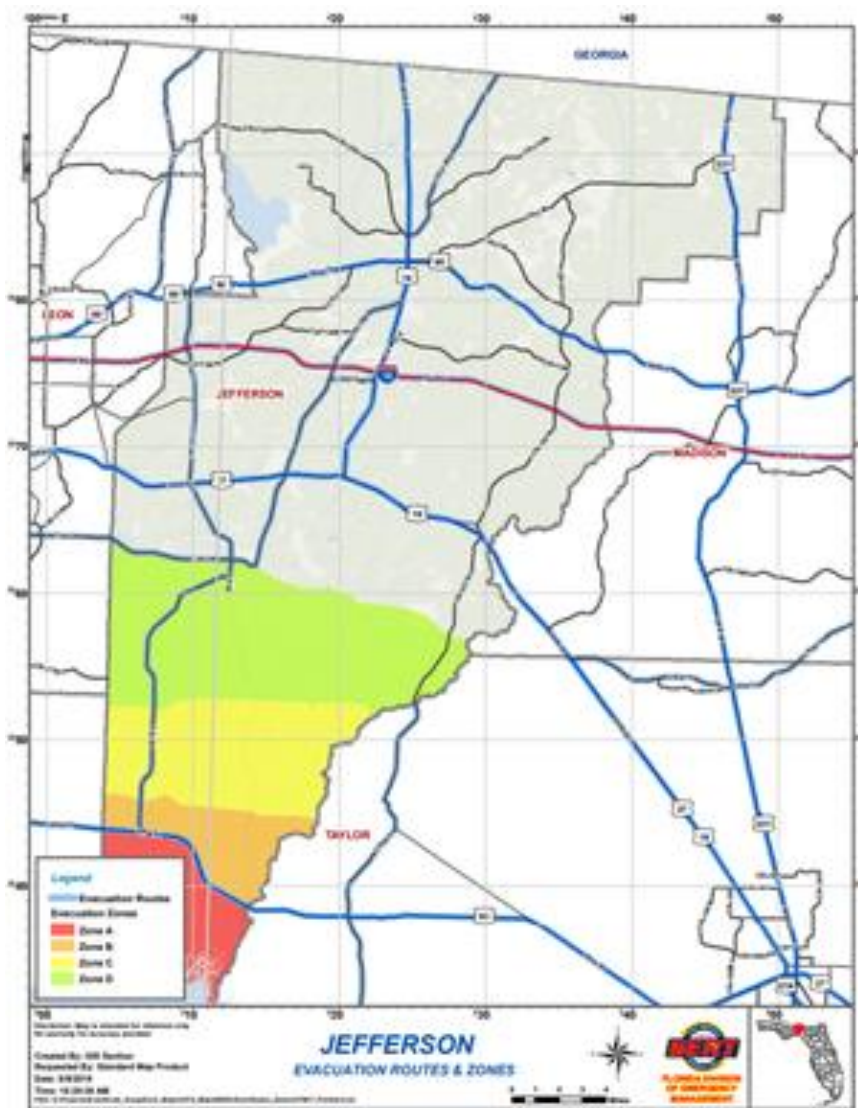
The 2001 Florida Building Code (FBC) was the first statewide code issued and was adopted by both the city and the county. Both the city and the county adopted and enforce the FBC which became effective. Working with the Jefferson County Property Appraiser database and building officials from both the City of Monticello and Jefferson County, structural vulnerability was determined based on building codes in place in over the last six decades. The following maps indicate structural vulnerability based on the date of construction in the city and the county. They also include properties on the National Register of Historic Places.

Storm Surge

Storm surges can affect river and stream valleys and adjacent low-lying lands along the southern and southeastern borders of Jefferson County. High water, particularly moving water commonly associated with tsunamis, can damage structures and other property, and sweep away people, livestock, and other living beings and materials.

The following figure indicates the predicted extent and vulnerability within Jefferson County to flood damage from a tropical cyclone storm surge. A storm surge appears in Jefferson County. Affected areas include the southern portion of Jefferson County.

Figure 14: Estimated Hurricane Storm Surge Jefferson County.²⁸



The impacts of this flooding would affect residential and other structures and associated infrastructure such as septic tanks, along with roadways within these areas. Injuries and fatalities would be very

²⁸ Apalachee Regional Planning Council, 2018.

Limited in these areas given advance warning and a mandatory evacuation. A tsunami, although unlikely, would provide little to possibly no warning, unlike a hurricane.

Based on this and the historical record, the probability of a tsunami affecting Jefferson County and the City of Monticello is **unlikely** as defined under Section 2.2.1 Risk. However, the probability based on the historical record of a storm surge event, which is associated with tropical cyclones affecting Jefferson County and the City of Monticello is **occasional**.

Vulnerability Summary

Through the many different strengths of storms we have endured the results, Jefferson County and City of Monticello are vulnerable to property damage from wind, water, and flooding resulting from hurricanes and tropical storms, including storm surges associated with Category 3 or stronger hurricanes. (Flooding will be discussed in further detail later in this document.) Wind and water damages are highly correlated with storm intensity, and property-specific and area-wide flooding is correlated with storm size and speed, not necessarily intensity. Jefferson County's has inland and coastal location, a majority of damage will be caused from high winds. The southern border area of Jefferson County is also vulnerable to flooding from storm surges.

High winds can topple trees, which can damage structures and infrastructure. Because many areas within Jefferson and the City of Monticello have a heavy tree cover, and because the majority of electric and telephone lines are aboveground (and many newer underground lines are primarily served by existing overhead lines), power outages are associated with high winds and heavy rain. Blocked roads and limited access from fallen trees and tree limbs also affective response time and debris management.

Although Jefferson County is vulnerable to tsunami, and earthquake. After reviewing anyalis from different sources. Tsunami, and earthquakes are omitted from the plan due to not enough analysis, and documentation.

Vulnerable Populations

Although hurricanes and tropical storms can affect large populations equally, there are certain population groups that are more vulnerable than others. For instance, local emergency management and public health planners have identified Special Needs Shelter(s) for those "who during periods of evacuation or emergency, requires sheltering assistance, due to physical impairment, mental Impairment, cognitive impairment or sensory disabilities." The loss of power during and following hurricanes and tropical storms can affect people with special needs such as those who require medical care that relies on a steady source of electricity.

Another group in Jefferson County particularly vulnerable to the effects of hurricanes and tropical storms are homeless people. The number of homeless people is difficult to estimate because counting persons who do not have a permanent address is difficult. Those who are unsheltered (i.e., living on the street, illegally squatting in structures of various kinds, or in the woods in tents). These numbers are also subject to change as people move about, arrive in or leave Jefferson County, and/or transition into housing.

According to the Florida interagency Council on Homeless 2018 report, the annual statewide Point-in-Time count indicated the following total number of homeless persons within the Big Bend Continuum

Of Care geographic area, which includes Franklin, Gadsden, Jefferson, Leon, Liberty, Madison, Taylor, and Wakulla counties.

Table 23. Estimated Number of Homeless Persons by Year within the Big Bend Continuum of Care Area.²⁹

Year	2014	2015	2016	2017	2018
Total Number of Homeless	805	863	869	1,072	909

The 2018 count total of 909 homeless people comprised 810 sheltered and 99 unsheltered persons.³⁰ although this is a slight decrease over the 2017 estimate.

Unsheltered homeless people are the most vulnerable to hurricanes and tropical storms, particularly if they are not aware of an incoming storm and/or if their camp is in a low area that is vulnerable to flooding. The conditions following a storm can exacerbate their plight if there is no power for local stores, shelters, libraries, and other places where those with few choices can go dry out, get food and a shower, recharge cell phones, or even just escape the heat and mosquitos that come out after a storm.

Storm Surge

The southern portion of Jefferson County is vulnerable to storm surges and associated flooding. Figure 14 above indicates estimated surges associated with Category 1-5 hurricanes. Flooding from storm surges can be therefore expected as the result of strong hurricanes along the Gulf of Mexico

The worst-case event of a storm surge would be generated by a Category 5 hurricane. Flooding associated with this storm surge, as indicated in Figure 14, would likely affect the following developed features in Jefferson County:

- Highways 319 South, 61 (Wakulla Springs Road), Woodville Highway, and all collector and local roadways in the southeast quadrant of the county south of Tram Road and east of Highway 319 South
- Approximately 2,900 residential parcels, five schools, 30 retail businesses, 17 religious/non-profit parcels, 20 warehouse parcels, eight office parcels, 11 multi-family parcels, and eight transportation/communications/utilities parcels. This would include approximately 12 mobile home clusters identified in Figure 12. These areas are within the area on Figure 30 indicated as the estimated storm surge associated with a Category 5 hurricane.

²⁹Florida interagency Council on Homeless 2018 report.

³⁰<https://myflfamilies.com/service-programs/homelessness/docs/Council%20on%20Homelessness%20Annual%20Report%202018.pdf>.

Risk Assessment

Based on the historical data, the Tropical Meteorology Research Project, the U.S. Landfalling Hurricane Probability Project, hurricanes and tropical storms are classified as a **high risk** to Jefferson County residents. Historical records reveal tropical storm or hurricane-related damages occur with an average frequency of once every two years. Predictably, damage totals rise significantly with increased storm intensity.

Based on the data, storm surge is classified as a **low risk** to Jefferson County residents. Figure 32 indicates that only a small area of southern Jefferson County is vulnerable to storm surge events.

2.9 Severe Storms

This section includes the hazard profiles and vulnerability analyses for thunderstorms, tornadoes, and lightning because these events are so closely related.

General Description and Location

Thunderstorms

According to the National Oceanic and Atmospheric Administration (NOAA), a thunderstorm is a rain shower during which thunder is heard. Because thunder comes from lightning, all thunderstorms have lightning. A thunderstorm is classified as "severe" when it contains one or more of the following: hail three-quarters inch or greater; winds gusting in excess of 50 knots (57.5 mph); or a tornado.³¹

The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. Nearly 1,800 thunderstorms are happening at any moment around the world. Thunderstorms are most likely to occur in the spring and summer months and during the afternoon and evening hours but they can occur year-round and at all hours of the day or night. Along the Gulf Coast and across the southeastern and western states, most thunderstorms occur during the afternoon.

Heavy rain from thunderstorms can lead to flash flooding. Strong winds, hail, and tornados are also dangers associated with some thunderstorms. Thunderstorms typically produce heavy rain for a brief period, anywhere from 30 minutes to an hour. About 10 percent of thunderstorms are classified as severe—one that produces hail at one inch in diameter or greater, has winds of 57.5 (50 knots) miles per hour or higher, or produces a tornado.³²

Tornadoes

A tornado is a violently rotating column of air extending between, and in contact with, a cloud and the surface of the earth. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 miles per hour or more. In extreme cases, winds may approach 300 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long.

³¹ NOAA National Severe Storms Laboratory, 2019, <https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/>.

³² FEMA, Thunderstorms, <https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/>.

The most powerful tornadoes are produced by “super-cell thunderstorms.” These storms are affected by horizontal wind shears (winds moving in different directions at different altitudes) that begin to rotate the storm. This horizontal rotation can be tilted vertically by violent updrafts, and the rotation radius can shrink, forming a vertical column of very quickly swirling air. This rotating air can eventually reach the ground, forming a tornado.

Severe thunderstorms can produce tornadoes, high winds, and hail—any of which can cause extensive property damage and loss of life. Thunderstorms form when warm, moist air collides with cooler, drier air. Because these masses tend to come together during the transition from summer to winter, most thunderstorms occur during the spring and fall months.

Tornadoes occasionally accompany tropical storms and hurricanes that move over land. Tornadoes are the most common to the right and front of the storm center path as it comes ashore. Tornadoes vary in terms of duration, wind speed and the toll that they take, Tornadoes are classified by their wind speed and destructiveness. The Fujita (or simple “F”) Scale of tornado intensity has been traditionally used to rate the intensity of a tornado by examining the damage caused by the tornado after it has passed over a man-made structure. On February 1, 2007, NOAA’s National Weather Service fully implemented the Enhanced Fujita (EF) scale to rate tornadoes, replacing the original Fujita Scale. The EF Scale will still rate tornado categories from zero to five, but the ranges of wind speed in each category are now more accurate. The table below describes Enhanced Fujita Scale ratings and the associated wind speeds and type of damage for each F-Scale tornado number.

Table 24. Enhanced Fujita (EF) Scale of Tornado Intensity.³³

EF-Scale Number	3-second Gust	Type of Damage Done
EF 0	65-85 mph	Minor damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over. Confirmed tornadoes with no reported damage (i.e., those that remain in open fields) are always rated EF0.
EF 1	96-110 mph	Moderate damage. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF 2	111-135 mph	Considerable damage. Roofs torn off from well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF 3	136-165 mph	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations are badly damaged
EF 4	166-200 mph	Devastating damage. Well-constructed and whole frame houses completely leveled; some frame homes may be swept away; cars and other large objects thrown, and small missiles generated.
EF 5	Over 200 mph	Incredible damage. Strong-framed, well-built houses leveled off foundations and swept away; steel-reinforced concrete structures are critically damaged; tall buildings collapse or have severe structural deformations; cars, trucks, and trains can be thrown approximately 1 mile (1.6 km).

³³ https://en.wikipedia.org/wiki/Enhanced_Fujita_scale.

Tornados can occur anywhere within Jefferson County and the City of Monticello. They are relatively rare, but they have occurred in the past and are likely to occur in the future.

Lightning

Lightning is a sudden electrostatic discharge during an electric storm between electrically charged regions of a cloud, between clouds, or between a cloud and the ground. A lightning flash is referred to as a strike if it hits an object on the ground. Although lightning is always accompanied by the sound of thunder, distant lightning may be seen but may be too far away for the thunder to be heard.³⁴ Lightning can strike up to 10 miles from a thunderstorm. If an individual can hear the rumble, a bolt is close enough to hit.

Lightning is associated with thunderstorms. Florida is commonly subject to strong weather systems as the result of sea breezes that move inland from the ocean and settle over the moisture-rich atmosphere of the peninsula and other coastal areas. These sea breezes are like weak cool fronts that push toward the hot land in the interior. The temperature differential creates the ideal conditions for thunderstorm development, and lightning. Thunderclouds and showers form along the boundaries and become stronger when the east-west sea breezes collide in the middle of the state. Lightning can occur anywhere within Jefferson County and the City of Monticello.

Historical Occurrences

Thunderstorms

Florida has the highest average precipitation of any state, in large part because afternoon thunderstorms are common in most of the state from late spring until early autumn. Hail can accompany the most severe thunderstorms.

Table 25: **Thunderstorm/Wind Occurrences, Jefferson County (06/01/2015-04/25/2019)**³⁵

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
Monticello	6/01/2015	13:25	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
Ashville	6/17/2015	15:56	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Dills	6/17/2015	16:00	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Waukeenah	6/17/2015	16:00	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Alma	6/17/2015	16:22	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Thomas City	6/27/2015	14:55	Thunderstorm Wind	50 kts.	0	0	0.00K	0.00K

				EG				
Lloyd	6/30/2015	17:30	Thunderstorm Wind	55 kts. EG	0	0	0.00K	0.00K
Monticello	6/30/2015	17:45	Thunderstorm Wind	50 kts. EG	0	0	0.00K	0.00K
Capps	08/07/201	18:19	Thunderstorm Wind	50 Kts. EG	0	0	0.00	0.00K
Aucilla	8/28/2015	17:25	Thunderstorm Wind	50 Kts. EG	0	0	0.00	0.00K
Monticello	8/28/2015	17:25	Thunderstorm Wind	50 Kts.	0	0	0.00	0.00K
Jarrott	2/24/2016	04:15	Thunderstorm Wind	50 Kts. EG	0	0	0.00	0.00K
Monticello	3/3/2016	23:05	Thunderstorm Wind	50 Kts. EG	0	0	2.00K	2.00K
Aucilla	3/24/2016	19:04	Thunderstorm Wind	50 Kts. EG	0	0	0.00	0.00K
Hell's Half Acre	3/24/2016	19:15	Thunderstorm Wind	50 Kts. EG	0	0	0.00	0.00K

³⁶ NOAA National Climatic Data Center, <http://www.ncdc.noaa.gov/>.

Tornadoes

Tornados are a relatively infrequent occurrence in Jefferson County, but is still vulnerable to tornado events primarily associated with hurricanes. Tornados associated with summer or winter storm fronts are rare. Nevertheless, tornados have occurred throughout Jefferson County and have developed from severe storm systems over land.

Generally, there is an inverse correlation between the intensity and occurrences of tornados. However, as a tornado increases in scale, its power to destroy property, inflict injuries, and create fatalities increases dramatically. Populations especially vulnerable are those residing in older manufactured homes and substandard site-built homes.

Details from the NCDC reveal there have been 16 tornado occurrences over the last 69 years in Jefferson County.

Until March of 2019, no tornados reported at a F3 scale or higher had been reported to date in Leon, Gadsden, Liberty, Wakulla and Jefferson counties. However, an E3 Based on historic records from the period 1950 to 2014, tornadic activity within this region has resulted in a total of eleven injuries and two fatalities. Jefferson County has been fortunate in this regard, as there have been no reported tornado- related deaths The following table details historical occurrences of tornado events in Jefferson County from 1950 through 2019.

Table 26: Jefferson County Tornado History, 1968-2019.³⁷

Location or County	Date	Time	Type	Mag	Dth	Inj	PrD	CrD
Jefferson County	5/19/1968	11:00	Tornado	F0	0	0	0.03K	0.00K
Jefferson County	5/8/1971	16:00	Tornado	F1	0	0	2.SK	0.00K
Jefferson County	10/27/1972	14:00	Tornado	F1	0	1	25K	0.00K
Jefferson County	6/14/1975	15:00	Tornado	F1	0	0	25K	0.00K
Jefferson County	11/11/1979	08:00	Tornado	F1	0	0	25K	0.00K
Waukeelah	9/22/2000	13:00	Tornado	F0	0	0	SOK	0.00K
Wacissa	9/22/2000	13:10	Tornado	F0	0	0	40K	0.00K
Lloyd	9/16/2004	04:45	Tornado	F0	0	0	25K	0.00K
Monticello	3/2/2007	02:10	Tornado	EF0	0	0	10K	0.00K
Capps	8/23/2008	17:12	Tornado	EF0	0	0	0.00K	0.00K
Lloyd	10/8/2008	16:24	Tornado	EF1	0	0	10K	0.00K
Jefferson County	3/3/2012	09:22	Tornado	F0	0	0	0	0.00K
N Jefferson County	4/7/2014	17:26	Tornado	F0	0	0	0	0.00K
SW Jefferson County	9/1/2016	22:49	Tornado	F0	0	0	0	0.00K
SW Jefferson County	10/8/2017	00:44	Tornado	F0	0	0	0	0.00K
Jefferson	3/3/2019	22:20	Tornado	F2	0	0	25K	

Lightning

Florida is the most lightning prone state in the U.S. The corridor from Tampa Bay, FL to Titusville, FL (a.k.a. “Lightning Alley”) receives the most lightning in the United States on an annual basis. Furthermore, more than 90% of the lightning in this area occurs from May through October, between the hours of noon and midnight. During this time of day and year, people in Central Florida who spend a large portion of their lives outdoors (e.g. construction workers, park rangers, golfers, campers etc.) are much more likely to be struck than anytime or anywhere else in the country.

On average, Florida receives an average of 1,447,914 cloud-to-ground lightning strikes per year. This averages out to 25.3 flashes per square mile annually, though the highest density of lightning flashes occurs in the central and southern Florida Peninsula. Over the past 50 years (1959-2010), Florida has

³⁷NOAA National Climatic Data Center, <http://www.ncdc.noaa.gov/>.

recorded 461 fatalities and over 1,790 injuries due to lightning. Also, lightning can also result in property loss, damage to aircraft and electronics, and can be the spark that ignites devastating wildfires.³⁸

Based on data provided by the NOAA National Climatic Data Center, there were 1,385,710 cloud-to-ground lightning flashes in Florida in 2018.³⁹

Because of this prevalence of strikes, Florida tops the national list for lightning deaths with 471 deaths between 1959 and 2013.⁴⁰ According to data collected and maintained by NOAA, Florida had 49 fatalities from lightning from 2009 through 2018. This continues to place Florida first in rankings by state for lightning fatalities.⁴¹ There are no recorded fatalities from lightning in Jefferson County.

Estimated Impacts, Probability, and Extent

Thunderstorms

The impacts of thunderstorms vary greatly based on the presence and degree of high winds, rain and/or hail, and the specific area affected by a storm. Recorded local impacts of thunderstorms include high winds breaking branches and topple trees, which can and have affected structures, roadways, vehicles, power lines, cable, and other critical infrastructure. High winds have brought down traffic lights, blown out windows in tall buildings, and grounded emergency services aircraft.

Microbursts, defined as a localized column of sinking air caused by a small and intense downdraft (the air does not spin like it does in the case of a cyclone or tornado), also occur within thunderstorms in Jefferson County. There are several instances where microbursts have brought down large trees and damaged property.

³⁸ <https://cacarc.wordpress.com/2011/06/20/2011-national-lightning-safety-awareness-week-facts-about-lightning/>.

³⁹ Vaisala 2018 Annual Lightning Report, <https://www.vaisala.com/en/lp/2018-annual-lightning-report>.

⁴⁰ http://articles.orlandosentinel.com/2013-07-05/news/os-lightning-deaths-florida-20130705_1_lightning-alley-lightning-deaths-john-jensenius.

⁴¹ www.vaisala.com/lightning.

⁴⁴ Florida Department of Agriculture and Consumer Services, <http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Wildland-Fire/Resources/Wildland-Fire-Daily-Report-for-Florida>.

The rainfall associated with thunderstorms floods streets, drainage ditches, lakes, watercourses, and structures, particularly within flood prone areas within Jefferson County and the City of Monticello. Rainfall in sufficient amounts and/or duration can overwhelm storm water management facilities and conveyance systems. If this rainfall is within a closed basin, and if there is no route for this storm water to drain (e.g., sinkhole), the accumulated storm water can damage structures and other property.

The impacts of thunderstorms can also vary depending on where these events occur. However, because thunderstorms can occur anywhere in the County, all citizens, structures, and critical facilities and systems can potentially be affected by the effects of these storms.

Based on historical data, it is anticipated the probability of future events for this hazard would reflect the historical frequency of occurrences, and that Jefferson County and the City of Monticello or portions thereof could expect an average of approximately four severe thunderstorms per year containing damaging winds of 58 miles per hour or greater, rainfall exceeding one inch in an hour, and/or hail of $\frac{3}{4}$ of an inch or greater. The probability based on the historical record of a severe thunderstorm affecting Jefferson County and the City of Monticello is **highly likely**.

Tornadoes

Extensive damage to infrastructure, public and private property can be expected and has occurred locally from tornados. Wind damages from tornados have devastating potential, particularly for manufactured homes. The area affected by tornados is relatively small, depending on their speed, size, and height above ground, but these effects can be significant. Tornados can break branches and topple trees, which can affect structures and other property such as automobiles, power lines, and other critical infrastructure. Tornados can also affect traffic lights, blow out windows, and ground emergency services aircraft. Because tornados can occur anywhere in the County, all citizens, structures, and critical facilities and systems can be potentially affected.

There were several tornados reported during the Florida Severe Storms event from March 26, 2009 to May 5, 2009. This was a declared a Major Disaster (DR-1831).⁴⁶

Based on these historical records, Jefferson County and the City of Monticello can expect an F0 tornado at least once every four years. The worst-case scenario would be an F2 tornado once every 16 years. However, the extent of any damage depends on where a tornado may touch down and how long it lasts. Because tornadoes can occur anywhere within the county, all citizens, structures, and critical facilities are at risk and may be affected.

When compared to other Florida counties, the probability of a tornado in Jefferson County is low. Nevertheless, as population and development increases, the risk of property damage, injuries, and fatalities increases.

⁴⁶ Ibid.

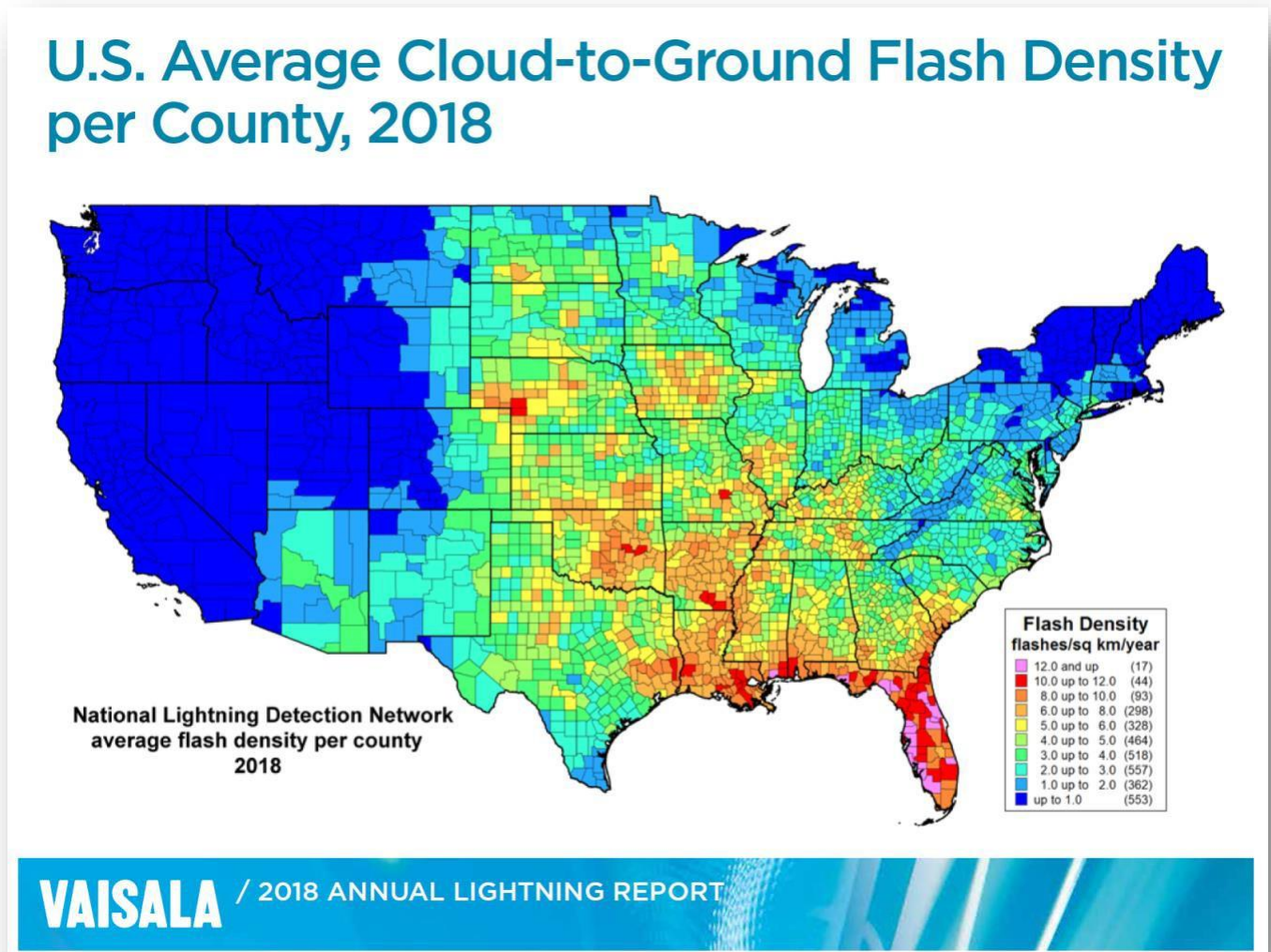
Lightning

Based on the data summarized above, lightning can cause injuries, fatalities, and forest and structure fires. Lightning can damage electrical systems and other infrastructure, kill trees, and physically damage structures.

According to data maintained by the NOAA National Climatic Data Center, a lightning strike that causes property damage occurs on average at least once a year.

There are several measures of lightning, including flash density maps. These are based on data acquired and managed by the National Lightning Detection Network. According to the 2018 Annual Lightning Report prepared by Vaisala under contract to NOAA, Florida leads the nation in lightning flash density per square kilometer.

Figure 15: U.S. Average Cloud-to-Ground Flash Density per County, 2018.⁴⁷



Lightning can occur anywhere in Jefferson County and the City of Monticello. Therefore, all citizens, structures, and critical facilities and systems can be potentially affected.⁴⁸ However, the vulnerability is heightened in certain locations as described below.

According to Figure 17, Jefferson County has a flash density of between 8-10 flashes/square kilometer/year, which is the Third-highest classification level measured by the National Lightning Detection Network. Based on the historical record of thunderstorms, which lightning is associated with, and the annual and 10-year flash densities previously indicated, the probability of lightning affecting Jefferson County and the City of Monticello is **highly likely**. The expected or anticipated number of lightning events (CG strikes) per year would be from 1-15, depending on location within the County and by the relative density of structures that would be vulnerable to lightning strikes.

⁴⁷ www.vaisala.com/lightning..

Vulnerability Summary

Jefferson County and the City of Monticello have a record of county-wide vulnerability to property damage from thunderstorms and their associated flooding, tornados, and lightning. Areas and features specifically vulnerable to flooding from severe thunderstorms include parcels wholly or partially located within the 100-year floodplain. Specific areas and structures vulnerable to flooding also include the following:

- Mobile homes and septic tanks located in a 100-year floodplain
- Repetitive loss properties(Jefferson has no RLs properties)
- 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 subdivisions built before 1991-92

Any structure, infrastructure component, or other facility that has adjacent large trees may have additional vulnerability to high winds associated with severe thunderstorms, as well as tornados. These include many older residential subdivisions in Jefferson County and the City of Monticello.

The homeless, especially those who are unsheltered, are particularly vulnerable to severe storms and related events such as tornados. As previously discussed above, unsheltered homeless persons are affected by such storms in ways that sheltered persons are not, and the effects can be anything from merely getting wet to getting electrocuted, suffering heat cramp, exhaustion, or strokes. If a winter storm or front blows through, the associated drop in air temperatures can affect a person's health significantly.

People participating in leisure activities such as fishing, camping, boating, soccer and golf are also vulnerable to severe thunderstorms, as well as first responders, roofing, HVAC, or other building contractors, and large masses of people attending various outdoor events such or other festivals, political rallies, or sporting events. Locations within Jefferson County and the City of Monticello with a heightened vulnerability to thunderstorms include:

- All Jefferson County and City of Monticello parks, boat landings, golf courses, and greenways
- All open bodies of water in Jefferson County where boating is allowed
- All State of Florida wildlife management areas, forests, and parks in Jefferson County

- Outdoor recreational facilities

Structures, infrastructure, and large trees lacking lightning mitigation features such as grounded lightning rods are also vulnerable to lightning strikes associated with thunderstorms.

Tornados

Because tornadoes often cross jurisdictional boundaries, all existing and future buildings, facilities and populations within Jefferson County and the City of Monticello are exposed to this hazard. Residents living in manufactured housing, including single structures and clusters, are more vulnerable than those living in permanent structures. Mobile home clusters are identified in Figure 21.

People participating in leisure activities such as fishing, camping, boating, soccer and golf are vulnerable to tornados, as well as first responders, workers such as roofers or roofing, HVAC, or other building contractors, and large masses of people attending various outdoor events such as music or other festivals, political rallies, or sporting events.

Other locations within Jefferson County and the City of Monticello with a heightened vulnerability to tornados include:

- All Jefferson County and City of Monticello parks, boat landings, golf courses, and greenways
- All open bodies of water in Jefferson County where boating is allowed
- All State of Florida wildlife management areas, forests, and parks in Jefferson County
- Outdoor recreational facilities

Residents living or working in structures that have large, adjacent trees, or critical facilities or infrastructure such as power lines and traffic lights, or in densely residential and other developed areas, have increased vulnerability to the high winds, flying debris, and sudden changes in air pressure

Associated with tornados. These include many older residential subdivisions in Jefferson County and the City of Monticello.

Lightning

Since 2006, 64 percent of lightning deaths nationwide (238) occurred when people were participating in leisure activities such as fishing, camping, boating, soccer and golf. First responders are also vulnerable to lightning, as well as workers such as roofers or roofing, HVAC, or other building contractors. Large masses of people attending various outdoor events such as music or other festivals, or baseball or football games, can also be vulnerable to lightning. Areas within Jefferson County and the City of Monticello anticipated to be vulnerable to lightning strikes would include:

- All Jefferson County and City of Monticello parks, boat landings, golf courses, and greenways
- All open bodies of water in Jefferson County where boating is allowed
- All State of Florida wildlife management areas, forests, and parks in Jefferson County
- Outdoor recreational facilities

Residents within these areas, including events where significant numbers of citizens are gathered for festivals, sporting events, political rallies, and other events, are particularly vulnerable to lightning strikes. Structures, infrastructure, and large trees lacking lightning mitigation features such as grounded lightning rods are also vulnerable to lightning strikes.

Citizens in Jefferson County and the City of Monticello who work outside and transient populations are also particularly vulnerable to lightning strikes.

Vulnerability to lightning is also seasonal in nature. The summer months in Jefferson County and the City of Monticello (June through August) accounts for 73% of all lightning related fires from 2004-2009, with August being the peak month.⁵⁰

⁵⁰ Ibid.

Risk Assessment

Based on the historical record, the potential damage, and the size area of Monticello, thunderstorms, tornados, and lightning are all classified as a **low risk** to Jefferson County and the City of Monticello.

2.10 Drought

General Description and Location

Drought is a natural part of the local climate, just like hurricanes, thunderstorms, wildfires, and tornados. However, unlike other hazards that affect the state, droughts can impact large areas and last for months, even years. Drought can affect water supplies, agriculture, and fire danger levels and is measured based on the severity of these impacts.⁵¹

Drought is typically defined as a prolonged period when there is a precipitation deficit from normal values. There are several indexes that are used to characterize and measure droughts, but the most used index is the Palmer Drought Severity Index (PDSI), devised in 1965. The PDSI was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to calculate water supply and demand, incorporates soil moisture, and is considered most effective for non-irrigated cropland. It primarily reflects long-term drought and has been used extensively to initiate drought relief. The PDSI uses a zero as normal, and drought is shown in terms of negative numbers. For example, negative 2 is moderate drought, negative 3 is severe drought, and negative 4 is extreme drought.

A normally recurrent feature of climate, drought is a relative, rather than absolute, condition that varies by region. Each drought differs in intensity, duration, and spatial extent.⁵² Drought is monitored through the U.S. Drought Monitor program, a partnership between the National Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. The U.S. Drought Monitor program uses the following classification system to illustrate the intensity and impacts of drought.

⁵¹ Ibid..

⁵² *How to Reduce Drought Risk*, Western Drought Coordination Council (1998), <http://www.drought.unl.edu/plan/handbook/risk.pdf>.

Figure 17: Intensity and Impacts of Drought.⁵³

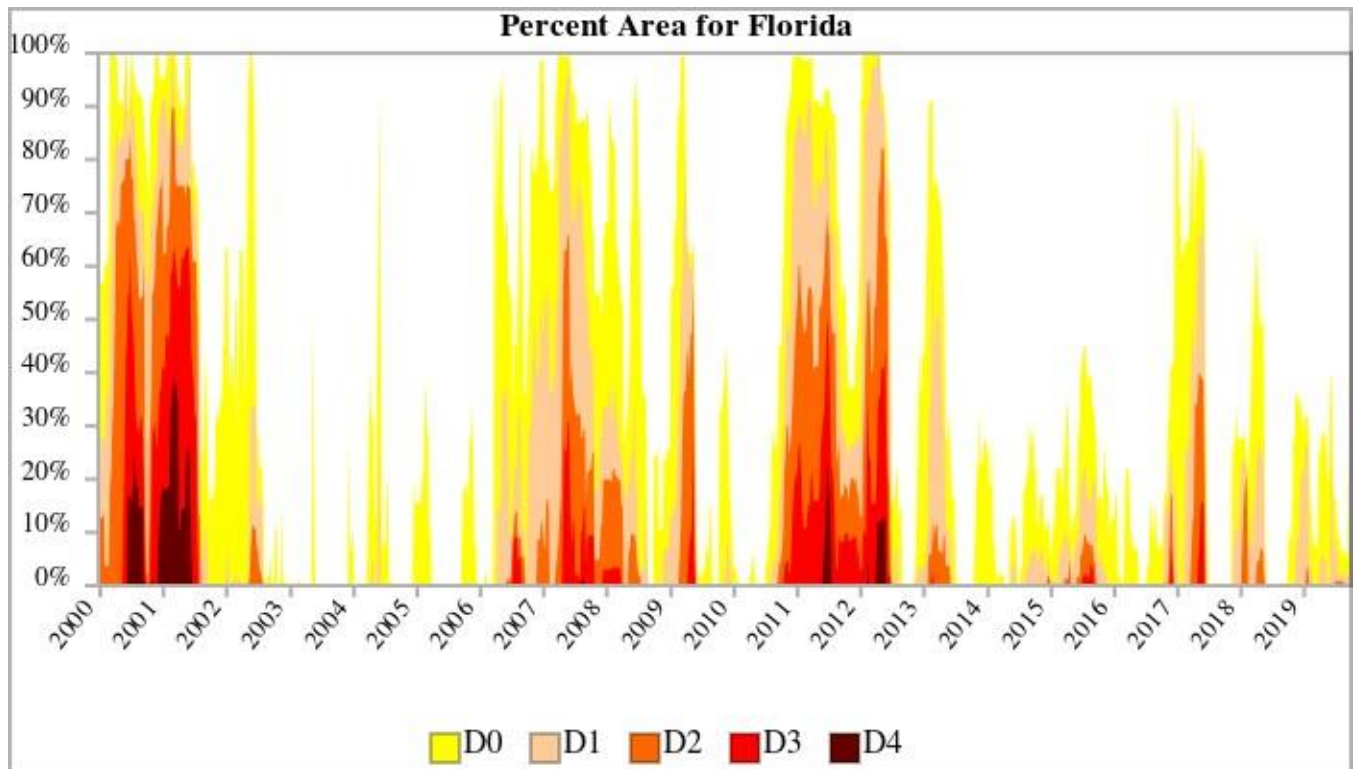


All areas of Jefferson County and the City of Monticello are vulnerable to drought. Because drought is a regional phenomenon, it can affect areas larger than a single county or municipality.

Historical Occurrences

Droughts are periodic events that impact Jefferson County and the City of Monticello. They can impact large areas and last for months, even years. An examination of weather records since 1900 reveals that in every decade there has been at least one severe and widespread drought somewhere within Florida. The following figure indicates the historical drought record for Florida from 2000 to 2019.

Figure 18: Florida Drought Map for the period 2000-2019.⁵⁴



⁵³ <https://droughtmonitor.unl.edu/>.

⁵⁴ National Integrated Drought Information System, <https://www.drought.gov/drought/states/florida>.

This figure indicates that since 2000, the longest duration of drought (D1-D4) in Florida lasted 124 weeks beginning on April 11, 2006 and ending on August 19, 2008. The most intense period of drought occurred the week of February 27, 2001 where D4 affected 39.08% of Florida land. There were at least three periods of significant drought in the last 15 years in Florida, and that the last severe drought period occurred from late 2011 to mid-2012. These drought periods brought about the disappearance of Lake Jackson and dried out much of Lakes Miccosukee, Lafayette, and Iamonia.

The last five years have been relatively wet for Jefferson County, but there were a few months of significant drought (D3) in early 2017.

Estimated Impacts, Probability, and Extent

Drought events can impact individual drinking water wells, surface water bodies and water courses, increase the risk of fire danger, contribute to sinkhole development, impede farm productivity, and strain municipal or regional water supplies. For instance, during the period of May through June of 2000, over three hundred (300) water wells either went dry or had to be deepened. The Northwest Florida Water Management District issued Water Shortage Warnings during two periods of drought conditions in 2000 and 2007. The Water Shortage Warning provides for voluntary water conservation actions, during which all users are encouraged to reduce water use and to conserve water to the maximum extent possible. However, no water shortages were reported since then.

Drought can also dramatically affect local natural lake levels. As the water table responds to the lack of rain by a decrease in the level of the potentiometric surface of the Floridan aquifer underlying Jefferson County, many lakes that have karst (sinkhole) connections to the aquifer respond by draining into the aquifer and therefore drying out. This is a natural process that has been going on for millennia, but it can interfere with traditional uses of these lakes, and it can increase fire danger through the many terrestrial plants that move into the dry lake beds over time. Drought also affects timber productivity in Jefferson County, and can increase fire danger in upland areas as well.

A drought with a PDSI of -3 can occur every three to four years in Jefferson County and the City of Monticello, based on the last 15 years' data. Overall, the probability based on the historical record of a drought affecting Jefferson County and the City of Monticello is **likely** as defined under Section 2.2.1 Risk.

Vulnerability Summary

Jefferson County and the City of Monticello have limited vulnerability to the negative effects of drought. Although drought can exacerbate demand for potable water, the City of Monticello's water needs

account for less than seven (7) percent of the water available for local withdrawal in the Floridian Aquifer. It should be noted that Jefferson County has not experienced extended drought conditions in excess of several months. However, the City believes that extended droughts would still not pose serious problems to critical needs (potable water, firefighting, etc.), although irrigation restrictions might be required.

Although public supplies tend to be drawn from much deeper wells that are not normally affected by drought conditions, drought can dry up surficial and other shallow water wells. Therefore, residents who depend upon private water wells are vulnerable to drought, as well as those who live in areas where wildfires are a hazard in dry conditions.

Risk Assessment

An assessment of potential dollar costs was not performed due to the fact that droughts are not expected to damage existing or future structures or critical facilities within Jefferson County. Although agricultural production is limited in Jefferson County and therefore monetary damages incurred during a drought are expected to be minimal, drought is nevertheless ranked as a **medium risk** to the residents of Jefferson County based on the impacts an extended drought can have on wildfire and potable water supplies.

2.11 Flooding

General Description and Location

A flood is an overflow of water that submerges land which is usually dry.⁵⁵ 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 typically is 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 events.

Annual rainfall in Jefferson County averages about 55 inches. Rainfall is heaviest from June to September; about 44 percent of the annual rainfall occurs during this period.

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. The 100-year floodplain is used by FEMA 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

⁵⁵ <http://en.wikipedia.org/wiki/Flood>.

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 is dependent upon the location of property or structure within identified flood prone areas, special flood hazard areas, and other areas prone to flood hazards or damage from flooding. Mold is another top health concern. In the South, high temps and a damp environment can create mold if a home is abandoned for several days or more. Upon returning to the home, open the windows. While some mold can be cleaned by the homeowner, it gets into other spaces that may need professional remediation. Additionally, pay attention to the chemicals you use to clean mold and avoid mixing them. 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. In responding to recent floods many residents should be given tetanus shots as a precaution. However, people should consider the Tdap vaccination, which guards against tetanus, diphtheria, and pertussis.

FEMA Flood Insurance Rate Map (FIRM) Zones

Flood zones are geographic areas that the 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 2.31 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.

Table 27. Description of FEMA FIRM Zones.⁵⁶

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.

Floodplain Impacts

Jefferson County is a participant in the National Flood Insurance Program (NFIP) - Community Rating System (CRS). The county's current rating is 8, which translates into a discount in flood insurance premiums for homeowners who purchase flood insurance for their structures. "Communities" are rated from 1-10 depending on a number of criteria. The lower the number, the better the rating. One of the key elements to obtaining and maintaining a better rating (lowering the rating number) is providing as much information as possible to homeowners regarding the protection of their properties from various dangers or natural disasters.

Flood Management

Floodplain management responsibilities are shared among federal, state, regional, and local governments. 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. Water Management Districts (WMDs) and the Florida Department of Environmental Planning 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 helps mitigate the effects of flooding on new and improved structures. These include:

Local land development codes developed to implement these policies address storm water 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 predevelopment 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 storm water management regulations and programs. Both jurisdictions charge a monthly storm water fee for property owners, the proceeds of which help fund storm water 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 storm water infrastructure.

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, 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 28: Jefferson participation in the NFIP .⁵⁸

Community Name	Policies In-Force	Insurance In-force whole \$	Written premium In-force
Jefferson County	84	\$17,674,100	46,060
City of Monticello	11	\$2,045,800	4,862
Total Number of Policies In-Force: 95			

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
- Maintaining FIRM maps and data and making these data available to the public
- Continuing participation in CRS program by Jefferson County

⁵⁷ Federal Emergency Management Agency, <https://bsa.nfipstat.fema.gov/reports/1011.htm#FLT>.

⁵⁸ FEMA NFIP.

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.

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 Flood Claims (RFC) grant 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 damages. The long-term goal of RFC is to reduce or eliminate claims under the NFIP 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.

Historical Occurrences

Both Jefferson County and the City of Monticello has compiled 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 responsible for addressing storm water flooding issues maintain lists of flooded structures and properties. The County's list is maintained by the Department of Public Works.

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.

Flooding occurs frequently along the creek and river systems, especially in the jurisdictions and county's low lying areas and near Wacissa and Aucilla. Any future plans for development would not be allowed as this entire area is designated as conservation on the 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 raining and ponding Rainfall averages 55 inches per year. Although Jefferson County did have record rains in 1994 (92.83inches), there was no flood damage reported from the heavy rain events.

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 many areas of Jefferson County and the City of Monticello were hurricanes Hermine, Michael, and Sally in 2016, 2018, and 2020. The major impacts of these storms included wind damage to trees, which caused significant power outages in many areas of the community.

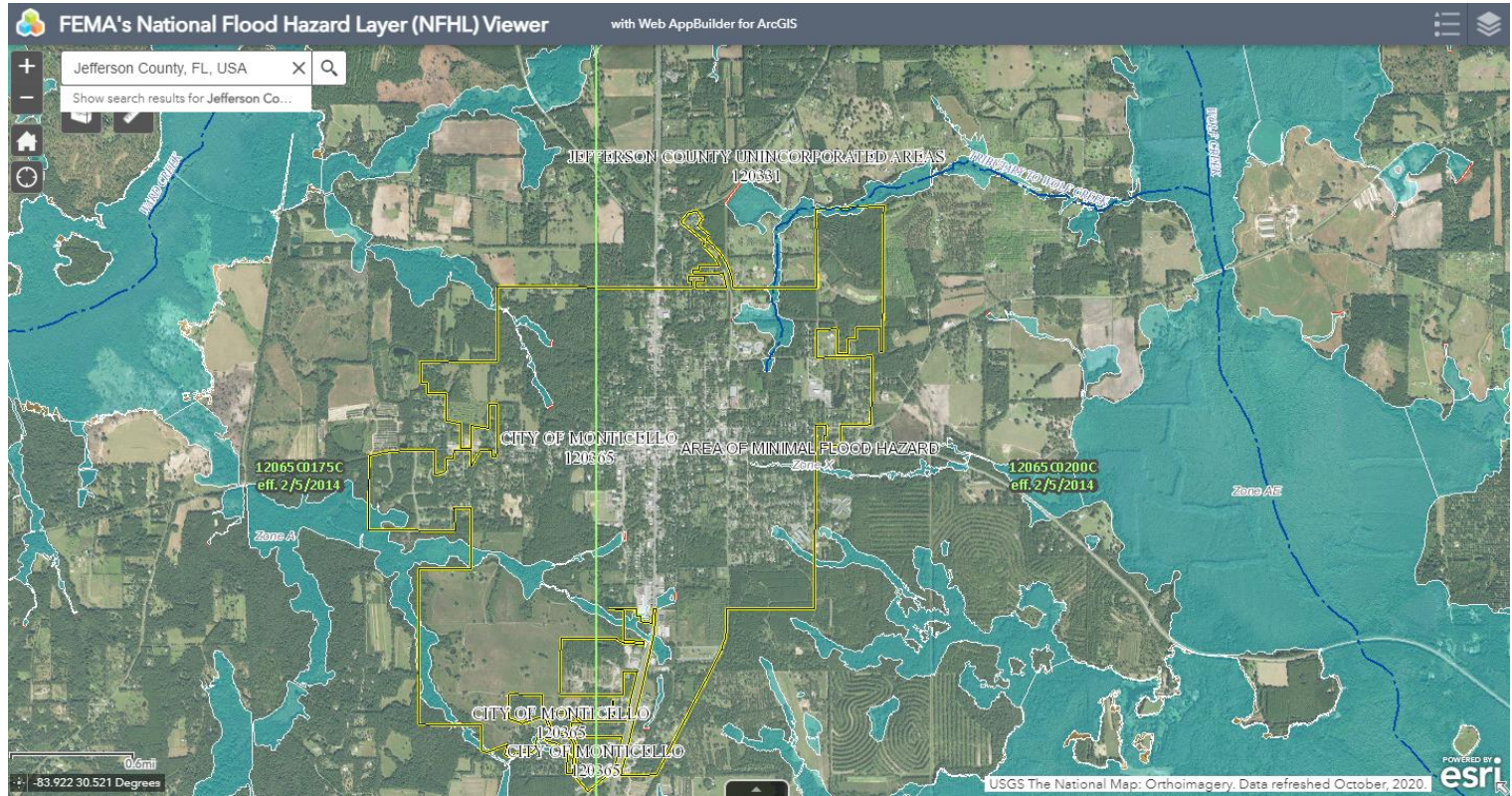
Estimated Impacts, Probability, and Extent

1. Flooding Analysis

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), in Jefferson County and the City of Monticello are indicated in the maps below.

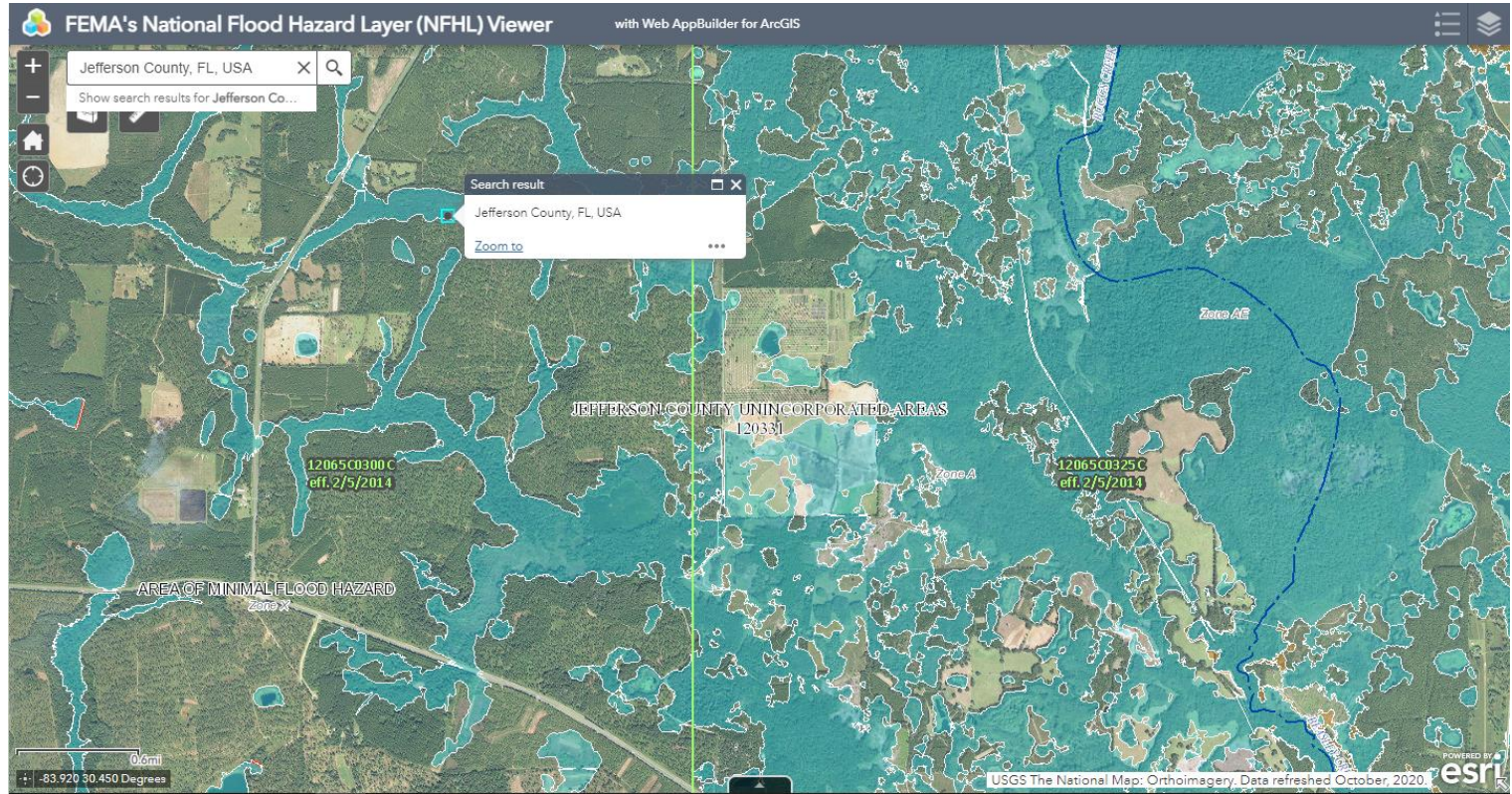
These maps note a distinction between Zones A and AE in the 100-year floodplain. For those areas categorized as Zone AE, engineering data exists that was used to calculate the Base Flood Elevation. The maps below show the depth of flooding for Zone AE.

Figure 21: Zone AE Depth-to-Flood – City of Monticello, Jefferson County



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

Figure 22: Zone AE Depth-to-Flood – Jefferson County



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

1. National Flood Insurance Program (NFIP)

The NFIP is administered by FEMA and assists homeowners and renters with flood insurance if their community participates in the program. 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

Flooding Vulnerability

Mobile homes and septic tanks are particularly susceptible to damage from hurricanes and flooding. The following maps depict mobile homes and septic tanks in the 100-year flood plain. The following analysis has been updated for the 2013 plan update. The information in Table is based on the 2010 U.S. Census population data. The individual tract and block data was built based on updates to those as part of the 2010 data. Centroids for each block were then overlaid with the inland flood zones layer for 100-year and 500-year floodplains, and Jefferson County is susceptible to riverine and coastal flooding and the City of Monticello is more vulnerable to flash flooding.

County	100yr	500yr
Jefferson	10,777	1,780

Potential Losses

There are approximately 2,382 + registered mobile homes which represents an estimated 4,621+ residents accounting for approximately 32% + 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 36 - summarize the following details for the Floodplain Area (100-year and 500-year) in Jefferson County on:

- The types of structures located by occupancy type in the floodplain area;
- The value of the structures;
- The county facilities within the floodplain area (100-year and 500-year); and
- The value of the county facilities (100-year and 500-year).

Property Type	Loss
Residential	285
Commercial	8
Industrial	2
Agriculture	240
Other	11
Total	546

Summary

The amount of rainfall from thunderstorm events in most of Florida is calculated from storm water design storms along with their probability. Generally, flooding in Jefferson County stems from two sources: periods of intense rainfall causing ponding and sheet runoff in the low, poorly-drained areas and coastal flooding associated with hurricanes and tropical storms. The floodplain of the Aucilla River is also subject to flooding during high river stages. Jefferson County is subject to coastal flooding caused by extra tropical cyclones and hurricanes. Extra tropical cyclones can occur at any time of the year but are more prevalent in the winter. The prime hurricane season is from August to October during which time 80 percent of all hurricanes occur. September is the worst month for hurricanes, during which 32 percent of the total occur. Hurricanes are of shorter duration than northeasters and generally last through only one tidal cycle. Flooding in Jefferson County can occur from all of these events, depending on location and other factors. However, depending on amount and duration of rainfall, these storms will create nuisance or hazard flooding in many areas, particularly within the 100-year floodplain.

The worst storm water event anticipated for Jefferson County and the City of Monticello is a 100 year - 24 hour storm. All structures (mobile homes and septic tanks) within the 100-year floodplain (Zones A and AE) and the 500-year floodplain would be affected by flooding from this event.

The depth of a flood can vary with these storms and where they occur. Zone AE depth to flooding; the computed elevation to which floodwater is anticipated to rise during the base flood (0.1' to 25', depending on location). If the base elevation of a structure is lower than the depth then this structure may be damaged by flooding. Generally, flooding can cause significant property damage when it exceeds six inches over this elevation.

Overall, the probability based on the historical record of a flooding event affecting Jefferson County and the City of Monticello is **likely** as defined under.

Vulnerability Summary

Jefferson County and the City of Monticello have a record of county-wide vulnerability to flooding primarily related to 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.

2.12 Extreme Temperatures

General Description and Location

Global climate change is affecting Florida and other parts of the U.S. Global climate change has already had observable effects on the environment. Glaciers are shrinking, ice on rivers and lakes is breaking up earlier, plant and animal ranges have shifted, and trees are flowering sooner. Effects that scientists had predicted in the past would result from global climate change are now occurring: loss of sea ice, accelerated sea level rise, and longer, more intense heat waves.

Scientists have high confidence that global temperatures will continue to rise for decades to come, largely due to greenhouse gases produced by human activities. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5 to 10 degrees Fahrenheit over the next century.

According to the IPCC, the extent of climate change effects on individual regions will vary over time and with the ability of different societal and environmental systems to mitigate or adapt to change.⁶⁴

Regardless of regional variations, the National Air and Space Administration (NASA) and IPCC predict that temperatures worldwide will continue to rise, growing seasons will lengthen, precipitation patterns will change, there will be more droughts and heat waves, and hurricanes will become stronger and more intense. Additionally, sea level will rise 1-4 feet by 2100, and the Arctic will likely become ice-free. The variability in the projected temperatures and related effects is based partly on the response to these projections. For instance, the effects of climate change can be influenced by worldwide efforts to reduce greenhouse gas emissions, as well as other mitigation measures.

The following descriptions of extreme temperatures, including historical climate data, projections, vulnerability, and risk. Are intended to be those temperatures and associated effects that affect the area of Jefferson County and the City of Monticello.

Heat

Extreme heat is defined as weather that is “substantially hotter and/or more humid than average for a location at that time of year.”⁶⁵ The Heat Index, which measures the “apparent temperature” when considering both air temperature and humidity, is used by organizations like the National Weather Service to identify extreme heat days. Extreme heat is particularly dangerous when occurring for a prolonged period (known as a “heat wave”). The higher heat index, the more difficult it is for the body to cool itself. Since Florida is surrounded by the Atlantic Ocean and the Gulf of Mexico, the state is always influenced by tropical moisture, especially in the summer. This can drive the heat index higher than in regions with drier air, such as Colorado.

Extreme heat can also help create the conditions for drought and can exacerbate the impacts of drought by putting additional stress on available water supplies. Extreme heat may lead to increased

⁶⁴ <https://climate.nasa.gov/effects/>.

⁶⁵ <https://planningforhazards.com/extreme-heat>.

Storm activity, which is linked to both high winds and flash flood hazards. It can also contribute to the spread of wildfires.

Historical Occurrences

The following table lists all-time weather records for Monticello, Florida through 2019. For temperature and precipitation records, there are two sets of data

Table 39: Weather Records for Monticello, Florida (°F).⁶⁸

Record	(3/30/61-Present)		(4/1/1885 - 3/29/1961)	
	Reading in F°	Date(s)	Reading in F°	Date(s)
Hottest Temperature	105	June 15, 2011	104	June 20, 1933 July 15, 1932 July 3, 1931 June 29, 1931 June 24, 1914
Coldest Temperature	6	January 21, 1985	-2	February 13, 1899
Highest Daily Mean	91	July 30, 2010 July 20, 2007 July 18, 2000 July 16, 2000 July 14, 1980	91	July 15, 1932 July 11, 1930 June 29, 1931
Lowest Daily Mean	17	January 21, 1985	10	February 13, 1899
Lowest Daily Maximum	28	January 21, 1985	22	February 13, 1899
Highest Daily Minimum	81	July 15, 1980	79	July 11, 1930
Hottest Month	85.4	July 2015	85.4	July 1932
Coldest Month	43.9	January 1977	41.0	January 1940
Coldest Year	65.5	1979	64.9	1901
Hottest Year	71.8	2015	70.7	1933
Most Days at or above 100	16	1998	12	1931
Earliest 100 Degree Day	100	May 28, 2000	100	May 24, 1941
Latest 100 Degree Day	101	September 18, 2019	100	September 20, 1931
Earliest 90 Degree Day	90	March 15, 1967	90	March 21, 1907
Latest 90 Degree Day	90	October 22, 1993*	90	October 26, 1931
Fewest Freezes	15	2018-2019	N/A	N/A
Most Freezes	56	1977-78 & 1969-70	32	1957-58
Most Hard Freezes	19	2000-01	11	1917-18
Earliest Freeze	32	October 18, 1977	29	November 3, 1954
Latest Freeze	31	April 23, 1993	30	April 13, 1918
Earliest Hard Freeze	21	November 9, 1976	22	November 16, 1940
Latest Hard Freeze	25	March 23, 1986	24	March 10, 1932
Latest First Freeze	32	January 8, 1995	N/A	N/A
Earliest Last Freeze	30	February 17, 1997	N/A	N/A
Average First Freeze		November 16		December 6
Average Last Freeze		March 19		February 27
Hottest Summer	84.4	2011	82.6	1932
Coollest Summer	78.9	1961	77.6	1892
Warmest Winter	58.4	1971-72	64.2	1931-32
Coldest Winter	47.0	1977-78	48.6	1957-58

* denotes last of several occurrences

⁶⁸ <https://www.weather.gov/tae/extremes>.

Estimated Impacts, Probability, and Extent

Heat

The effects of heat on Jefferson County include increased utility costs, the loss of electricity, drought, plant and tree stress, and negative effects on human health.

Extreme heat conditions can have significant to fatal impacts upon human health. A number of factors contribute to an individual's risk for heat-related illness including age, obesity, illness, medication, temperature, humidity level, time spent in the heat, hydration level, exposure to direct sunlight, pre-existing conditions, and others. The signs and symptoms of heat-related illness are progressively worse. If one fails to heed the signs and seek immediate medical attention, hyperthermia and death may result. First responders are also at higher risk if they are physically exerting themselves or wear bulky personal protective equipment.⁶⁹

The greatest threat for infrastructure damage is through the loss of electrical power generating capacity. During times of excessive heat, air conditioning units work extra hard and demand a lot more electricity. Brownouts and blackouts are possible when electricity demand exceeds the utility's ability to generate it.

In the event of a loss of electrical power or chilled water capacity, the lack of climate control in a building may also necessitate evacuation and closure. Virtually all new buildings, including residential and non-residential, are designed to have climate controlled interior environments as well as be as energy efficient as possible. However, most institutional and apartment buildings often don't have windows that open, natural cross ventilation, or even high ceilings to allow excessive heat to rise. If there is no energy to operate HVAC units or even fans, these buildings can become dangerously hot and stuffy.

The historical probability of occurrence of a Heat Advisory in Jefferson County is **very likely**. Weather conditions that warrant the issuance of a Heat Advisory occur at least once per year during the summer, May - September. The historical probability of occurrence of an Excessive Heat Warning in Monticello is **likely**.

Excessive heat warnings are issued by the National Weather Service when the heat index reaches or exceeds 105°F for 48 hours. At a heat index of 105°F, even healthy adults are at risk of heat-related illness with prolonged exposure. Weather conditions that warrant the issuance of an Excessive Heat Warning historically occur on average once every 3 to 5 years in Monticello.⁷⁰ According to a recent study by the Union of Concerned Scientists, "Killer Heat in the United States," the number of days with a heat index above 105°F was historically five days per year on average. However, this is expected to increase to 32 to 50 days per year based on climate change projections and the actions (or lack thereof) taken to slow down or stop climate change.⁷¹ This dramatic increase in the number of days with a heat index above 105°F would be considered "extreme" in Jefferson County.

⁶⁹ <https://emergency.fsu.edu/hazards/extreme-heat/extreme-heat-analysis>.

⁷⁰ Ibid.

⁷¹ <https://www.ucsusa.org/sites/default/files/attach/2019/07/killer-heat-analysis-full-report.pdf>.

Vulnerability Summary

If global climate change and its accompanying projected warming (as well as other extremes in temperatures and other weather events) expected to affect the U.S. were not to occur, Jefferson County and the City of Monticello would still be vulnerable to extreme heat and cold, albeit on a limited basis. However, given the preponderance of observable historic and current data and the climate change projections of organizations like NASA and IPCC, it is anticipated that the vulnerability to extreme temperatures in Jefferson County and the City of Monticello is expected to increase, and that the rate of increase is dependent upon significant efforts to curb greenhouse gas emissions, among other efforts to address the causes of global warming. Certainly, there are many actions that government agencies, private businesses, and residents of Jefferson County and the City of Monticello can take to help mitigate this increasing vulnerability, but because climate change affects large areas outside the local jurisdiction, there are limits to what can be mitigated locally.

As previously described, unsheltered homeless persons are particularly vulnerable to extreme temperatures. Very hot temperatures create conditions amenable to heat cramps, exhaustion, and stroke, and very cold temperatures can create conditions under which these persons can develop hypothermia, or even freeze to death.

Risk Assessment

Based on an assessment of historical data and frequency of reported events, extreme temperatures are generally classified at present as a **low risk** to Jefferson County residents. However, projections indicate that this risk will increase in the future.

2.13 Wildfires

General Description and Location

Florida is a state vulnerable to wildfire. Our “fire season” extends throughout all 12 months although most fire activity occurs from January through May. The basic forest and shrub ecology of the state has been created by wildfire, and such fires remain a natural feature of the landscape. Prescribed fire mimics the occurrence of natural fire and has been a useful land management tool for many years in Florida. Prescribed fire consumes excess fuels, germinates many native plants, and helps create and maintain natural wildlife habitat.

Historical Occurrences

Florida’s vulnerability to wildfire was highlighted during the summer of 1998. According to the Governor’s Wildfire Response and Mitigation Review Committee, nearly 2,300 wildfires charred 500,000 acres, damaged over 300 homes, destroyed more than \$300 million worth of timber resources, and forced the evacuation of an entire county. The damage was concentrated in areas where homes were scattered on the outskirts of existing urban areas—the wildland/urban interface.

Wildfires can affect many areas of Jefferson County, but it is particularly a hazard on vacant, undeveloped lands within the urban area where individuals are building homes, particularly in areas with heavy concentrations of trees and vegetation, and where existing fire services or facilities are few or nonexistent. Large amounts of dry underbrush require only an ignition source which can come from various sources such as escape yard debris burn piles, lightning or even the wheels of a passing train.

Due to the concentration of residents in rural wooded areas of the county, additional threats to life and property exist, therefore requiring increased mitigation efforts.

As indicated in the table below, the 47 reported wildfires during this time carried a variety of causes. Most of these fires (53%) were caused from debris burns (piles, yard trash, and acreage). Fires caused by non-authorized piles topped the list at nine (19% of total fires). Non-authorized burning of yard trash accounted for eight fires (17% of total fires). Authorized broadcast/acreage burns rounded out the top three causes accounting for four fires (8.5% of total fires).

Table 41: Jefferson County Fires by Causes (1/1/2000-2/4/2016)

Cause	Fires	Percent	Acres	Percent
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Monticello-Jefferson County Local Mitigation Strategy 2020 Update

Campfire	5	1.49	21.5	1.11
Children	4	1.19	15.5	0.80
Debris Burn *	53	15.77	182.9	9.46
Debris Burn - Authorized Broadcast/Acreage	18	5.36	267.8	13.85
Debris Burn - Authorized	9	2.68	109.3	5.65
Debris Burn - Authorized	13	3.87	59.3	3.07
Debris Burn – Non Authorized	13	3.87	66.7	3.45
Debris Burn – Non Authorized	32	9.52	215.0	11.12
Debris Burn - Non Authorized	35	10.42	107.9	5.58
Equipment Use *	5	1.49	9.7	0.50
Equipment - Agriculture	5	1.49	18.0	0.93
Equipment - Logging	3	0.89	2.1	0.11
Equipment - Recreation	2	0.60	5.0	0.26
Equipment-Transportation	5	1.49	5.7	0.29
Incendiary	20	5.95	206.7	10.69
Lightning	21	6.25	225.6	11.66
Misc. - Breakout	1	0.30	2.0	0.10
Misc. - Electric Fence	1	0.30	0.2	0.01
Misc. - Fireworks	0	0	0.0	0
Misc. - Power Lines	14	4.17	29.8	1.54
Misc. - Structure	0	0	0.0	0
Misc. - Other	20	5.95	61.5	3.18
Railroad	1	0.30	1.0	0.05
Smoking	3	0.89	3.0	0.16
Unknown	53	15.77	318.0	16.44
Total	336		1,934.2	

The Florida Forest Service has addressed this issue in Jefferson County by educating the public about these causes and proposed actions that may be taken to control and prevent the fires caused by debris burning. The Florida Forest Service has accomplished this through Fire wise programs and Ready, Set, Go programs and literature given throughout the county.

Over the past couple of years, Jefferson County has experienced the effects of climate change with increasingly hot temperatures and elevated drought-like conditions. During these times fire danger risk increased within Jefferson County.

Hurricane Michael

On October 10, 2018 historic Hurricane Michael made landfall near Mexico Beach in the Florida Panhandle shattering and leveling homes, snapping trees and scattering massive debris throughout the region. Crossing land at nearly a category 5 storm, Michael packed winds of 155mph making it the Strongest storm ever to make landfall in Florida's panhandle region.

The effects and devastation of the storm was felt from Mexico Beach east to Tallahassee and north into several counties in Georgia. Damage assessments in Florida have reported up to 72 million tons of downed timber across 1.5 million acres. These findings have significantly increased the risk for wildfires and invasive pests across the northern panhandle region.

Although nearly two hours away from the landfall location, Jefferson County and the city of Monticello experienced an excessive number of downed trees and yard debris. The downed timber provided for large amounts of "Continuous Fuels" increasing the potential risk for wildfire in Jefferson County.

Estimated Impacts, Probability, and Extent

Jefferson County had a negative growth rate of -1.6% from 2010 to 2015 from 14,761 residents in 2010 to an estimated figure of 14,519 residents in 2015. The population most vulnerable to wildfires would be the residents living in close proximity to Jefferson County's heavily wooded rural areas.

The extent for wildfires could potentially be severe for the entire for the past 15 years, the county recognizes that there would be at Least 1,934+acres burned over the next 15 years. Approximately 36% of the wildfires that occurred in the county were debris burn (Authorized and unauthorized). In referencing the wildfire risk assessment map, there are several areas considered Note: Although there were no significant wildfires recorded from the Florida Forest Service data (1981 - 2008) for Jefferson County, A neighboring county (Madison) was noted with the Bee Haven Bay Fire in 1985 with 27,600 acres burned. Jefferson County is predominately agricultural and conservation

The Jefferson County community, the resident the structures and the infrastructure could suffer from a wildfire event. The estimation of impact of future wildfire occurrences can be evaluated as to "what the county could expect in in the future". Jefferson County is very vulnerable to wildfires due to the extent of agricultural, conservation and environmentally sensitive areas. According to the 2012 Census of Agriculture, there were 617 farms, accounting for 129,520acres of farmland, or approximately 32% of the total acre area. In 2012, the market value of the products sold for Jefferson County was \$48,306,000.

The consequences of wildfire can range from the environmental to the economic, creating water and air pollution habitat loss, quickening erosion, as well as costs associated with suppression, property loss,

and business disruption. Other potential damage would be on the endangered plant species with an increasing chance for invasive species to take root. In addition, the impact could be on the infrastructure impairment of power water, gas, or communication lines, road closures or destruction, and also harm to humans through smoke inhalation injury or loss of life.

The State has been impacted from significant wildfires over the last 35 years resulting in poor air quality, residential evacuations and structural damage and although Jefferson County hasn't experience devastating wildfires, the potential impact could be critical for the county residents

Jefferson County can anticipate significant wildfire events in the future and all mitigation efforts in prevention are essential in planning for the county residents and surrounding communities.

If environmental conditions, such as droughts or high winds, would present hazardous conditions or if a location is considered in a smoke sensitive area due to proximity to populated areas. Permitted burns are often site-checked by the FFS for compliance with proper fire procedures.

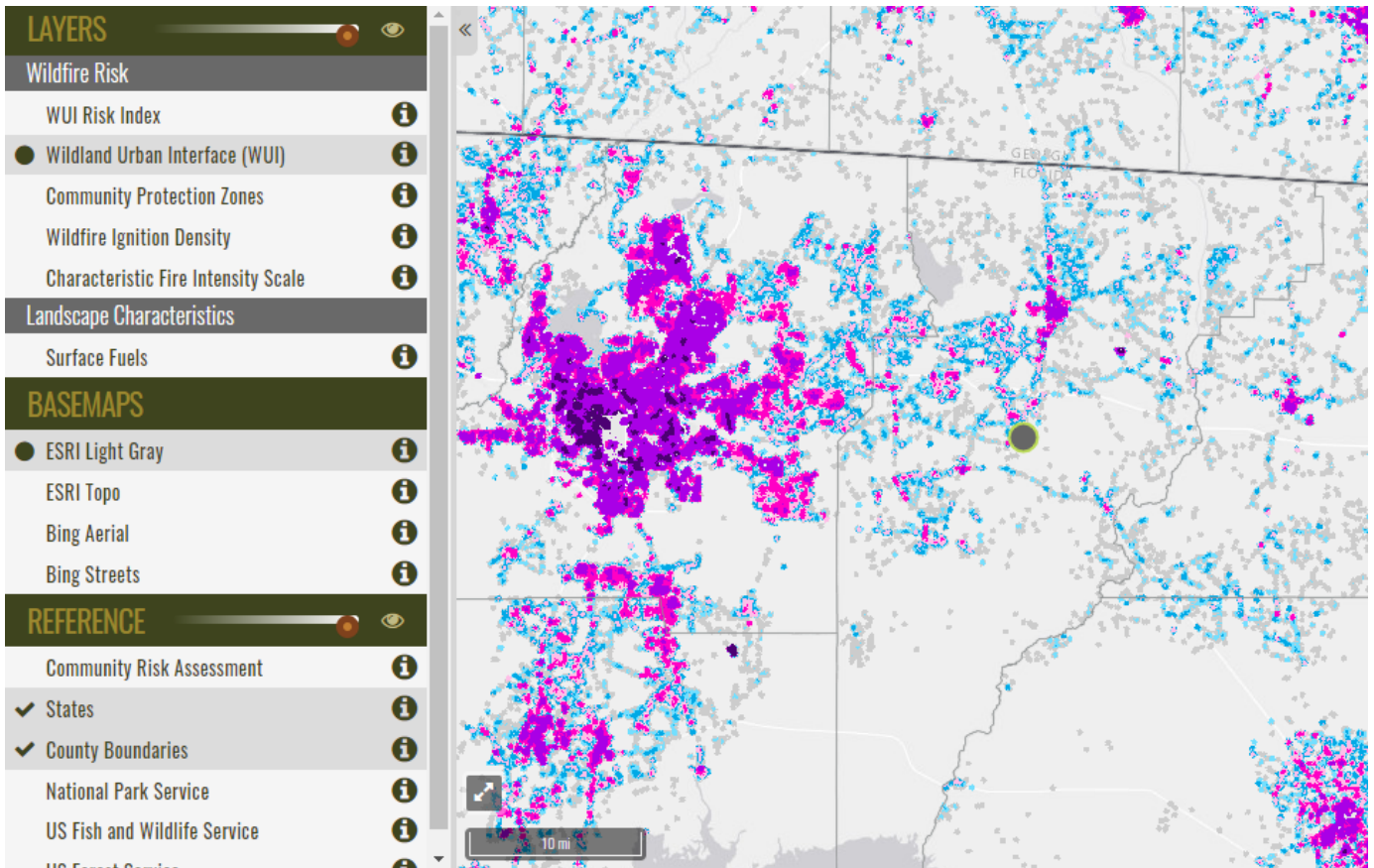
State and Federal Wildfire Mitigation Programs

After the devastating wildfires of 1998 throughout the state the legislature charged the Florida Forest Service with the task of creating a mitigation program to help manage/ alleviate thick vegetative fuels in communities and around homes to prevent catastrophic wildfire. The FFS identifies project areas annually in mitigation action plans created at the District level. Work to complete these projects occurs throughout each year using both prescribed fire and mechanical (mowing, mulching) applications to reduce wildfire risk.

Firewise is a national program that encourages landowners and communities to take responsibility for their wildfire risk by creating defensible space around homes and implementing various fuel reduction projects to minimize their risk of home ignition. The FFS provides Firewise outreach programs to residents in Jefferson County throughout the year.

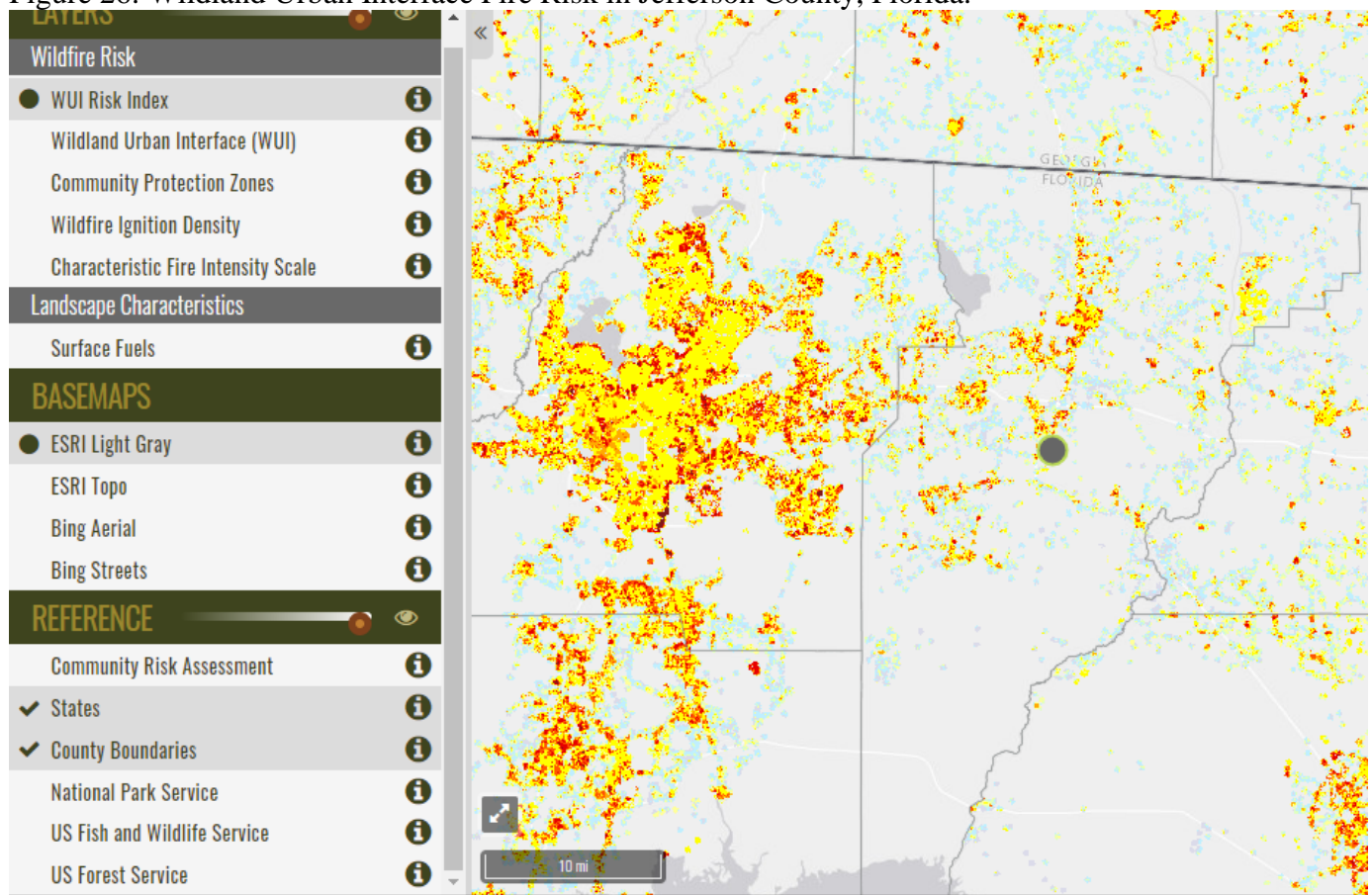
Overall, the probability based on the historical record of a wildfire within Jefferson County and the City of Monticello is likely because of the extent of the wildland, including adjacent heavily forested areas. However, most of these fires are small and easily controllable because of prescribed burning on public and private lands, and the advanced fire protection offered throughout the County.

Figure 25: Wildland Urban Interface in Jefferson County, Florida.⁷⁵



75 Florida Forest Service, 2019

Figure 26: Wildland Urban Interface Fire Risk in Jefferson County, Florida.⁷⁶



This map indicates those areas with the highest vulnerability to wildfire as calculated by the WUI.

Risk Assessment

In early 2019, the Southern Group of State Foresters developed the Southern Wildfire Risk Assessment Portal (SouthWRAP), built upon the success of the Texas Wildfire Risk Assessment Portal (TxWRAP). SouthWRAP is the primary mechanism by which SGSF is creating awareness among the public and arming state and local government planners with information to support mitigation and prevention efforts. SouthWRAP contains data for 13 Southern states, excluding Puerto Rico and the U.S. Virgin Islands that did not participate in the initial SWRA project.

It is imperative that communities located within the Wildland Urban Interface (WUI, for short) learn about their vulnerabilities to wildfire and act to mitigate their risk. But knowing which mitigating actions to take requires onsite assessments of just how "fire adapted" a community is. To help in this

⁷⁶ Ibid.

process, the Southern Group of State Foresters (SGSF) and Timmons Group have developed the Community Assessor, a new module in SouthWRAP that empowers the 13 southern state forestry agencies and their partners to do mobile field assessments of "Communities at Risk."

In the past, individual SGSF states developed manual ways serve to these Communities at Risk, including paper-based assessment forms and non-digital mapping of community boundaries. Across the region, there was no consistency in the assessment criteria and mitigation strategies recommended to localities, making the development of Community Wildfire Protection Plans (CWPPs) difficult.

With Community Assessor, field assessors can use iOS and Android mobile apps to quickly enter assessment details and capture photos for pre-mapped and ad-hoc communities. Remote communities are no problem, because field assessors can work in online or offline mode and still capture data and use the map. After assessments are synced from mobile to the Community Assessor web app, the Single Community Assessment Report can be downloaded listing automatically generated mitigation strategies tailored for that community. Finally, there is also a Project Report available detailing all communities for the project, including a map and table with the total hazard rating for each community.

The Florida Forest Service is using Community Assessor to conduct a community risk assessment on a mobile device in the field and upload the assessment to SouthWRAP, and then edit or create changes in SouthWRAP based on changes in fuels and mitigation actions. The Community Assessor Application can also help determine where mitigation projects need to be done based on risk and number of structures protected. The following are some of the components listed on the field risk assessment:

- Ingress/Egress
- Road Accessibility
- Street Signs
- Ware Supply
- Local Response
- Road width
- Driveways
- Hazardous Features
- Established HOA
- Structures
- Vegetation
- Defensible Space
- Proximity to Wildlands
- Building Materials
- Setbacks
- Debris on Roof

The goal of the Southern Wildfire Risk Assessment is to provide a consistent, comparable set of scientific results to be used as a foundation for wildfire mitigation and prevention planning in the Southern States. The Southern Wildfire Risk Assessment Portal (SouthWRAP) is the primary mechanism

to deliver assessment results to planners and practitioners in Florida. Information provided in an assessment can be used to support these key priorities:

- Identify areas most prone to wildfire
- Identify areas that may require additional tactical planning, specifically related to mitigation projects and community wildfire protection planning (CWPP'S)
- Provide the information needed to justify resource, budget and funding requests
- Allow agencies to work together to better define priorities and improve emergency response particularly across jurisdictional boundaries
- Define wildland communities and identify the risk to those communities
- Increase communication with local residents and the public to address community priority and needs
- Plan for response and suppression resource needs
- Plan and prioritize hazardous fuel treatment programs

Generally, the risk to humans and their property from wildfires increases with population and the development that accompanies population growth. In Jefferson County, the threat of such fires is low because of extensive prescriptive burning and comprehensive fire protection throughout the county, yet there is a potential for wildfire in areas of the county adjacent to residential areas and roadways that may increase over time if these areas are not properly managed to reduce the potential for wildfires, particularly if hotter summer temperatures become more common as described in the section addressing extreme temperature. Based on an assessment of historical data and frequency of reported events, wildfires are generally classified at present as a **low risk** to Jefferson County residents.

2.14 Sinkholes

General Description and Location

Sinkholes are a common feature of Florida's landscape. They are only one of many kinds of karst landforms, which include caves, disappearing streams, springs, and underground drainage systems, all of which occur in Florida. Karst is a generic term which refers to the characteristic terrain produced by erosional processes associated with the chemical weathering and dissolution of limestone or dolomite, the two most common carbonate rocks in Florida. Dissolution of carbonate rocks begins when they are exposed to acidic water. Most rainwater is slightly acidic and usually becomes more acidic as it moves through decaying plant debris.

Limestones in Florida are porous, allowing the acidic water to percolate through their strata, dissolving some limestone and carrying it away in solution. Over eons of time, this persistent erosional process has created extensive underground voids and drainage systems in much of the carbonate rocks throughout the state. Collapse of overlying sediments into the underground cavities produces

sinkholes. When groundwater discharges from an underground drainage system, it is a spring, such as Wakulla Springs, Silver Springs, or Rainbow Springs. Sinkholes can occur in the beds of streams, sometimes taking all of the stream's flow, creating a disappearing stream. Dry caves are parts of karst drainage systems that are above the water table, such as the Florida Caverns in Marianna.⁷⁷

Other subterranean events can cause holes, depressions or subsidence of the land surface that may mimic sinkhole activity. These include subsurface expansive clay or organic layers which compress as water is removed, collapsed or broken sewer and drain pipes or broken septic tanks, improperly compacted soil after excavation work, and even buried trash, logs and other debris. Often a depression is not verified by a licensed professional geologist or engineer to be a true sinkhole, and the cause of subsidence is not known. Such events are called subsidence incidents.

The development of sinkholes has historically been difficult to predict. Ground Penetrating Radar (GPR) surveys are increasingly used at the site level to locate karst depressions, which may indicate zones of subsidence. These areas can then be checked with a Cone Penetrometer Test (CPT) sounding.

Because the entire state is underlain by carbonate rocks, sinkholes could theoretically form anywhere. However, there are definite regions where sinkhole risk is considerably higher. These include areas of the state where limestone is close to surface, or those areas with deeper limestone but with certain configurations of water table elevation, stratigraphy, and aquifer characteristics conducive to increased sinkhole activity.

Jefferson County and the City of Monticello are located within an area of karst topography where sinkholes occur. According to the Florida Department of Environmental Protection, the northern part of the County “consists mainly of cohesive clayey sediments of low permeability. Sinkholes are most numerous of varying size and develop abruptly.” The southern portion is composed of “bare or thinly covered limestone” where “sinkholes are few, generally shallow and broad, and develop gradually.”⁷⁸

Karst, Subsidence, and Expansive soils

Land subsidence occurs when large amounts of ground water have been withdrawn from certain types of rocks, such as fine-grained sediments. Sinkholes are common where the rock below the land surface is limestone, carbonate rock, salt beds, or rocks that can naturally be dissolved by ground water circulating through them. As the rock dissolves, spaces and caverns develop underground.⁷⁹

While sinkholes threaten property, a related hazard is the potential impacts on groundwater quality. The local landscape is dotted with sinkholes. Sinkholes are responsible for the periodic dramatic drawdown of several local waterbodies.

⁷⁷ <https://floridadep.gov/fgs/sinkholes>.

⁷⁸ <http://www.dep.state.fl.us/geology/geologictopics/sinkholedevelopment.htm>.

⁷⁹ United States Geological Survey, <http://ga.water.usgs.gov/edu/earthgwsinkholes.html>.

Because sinkholes have a direct or semi-direct conduit to groundwater reservoirs, the possibility of drinking water degradation is a significant concern. The maintenance of drinking water quality has been partially addressed by the implementation of several policies including the Jefferson County Aquifer/Wellhead Protection Ordinance. Future knowledge about county hydrogeology may warrant additional policy initiatives to ensure the protection of drinking water resources.

Historical Occurrences

In August 2013, the Florida Geological Survey, in conjunction with the Florida Division of Emergency Management (FDEM), a federal grant to conduct a statewide assessment of sinkhole vulnerability over a three-year period with geologists conducting a one-year pilot study. The results of the pilot study will culminate in the production of a model that will generate a map showing the relative vulnerability of these counties to potential sinkhole formation, and then will be used to produce a statewide map. Ultimately, the assessment will assist planner, builders and environmental regulators for the improvement of health and safety for the populated areas as well as economic benefits.

Although the initial study is for the three counties, the vulnerability for all the counties in Florida will be available after a statewide map is produced. This will then be an additional resource for Jefferson County.

According to the Department of Environmental Protection, there have been three sinkhole occurrences in Jefferson County from the 1950's. - 2015, however, five additional sinkholes have been identified by the Division of Emergency Management office (in 2010 and 2012). During the recent planning period Jefferson County has not had any occurrences of sinkholes. Jefferson County Property Appraiser, and Jefferson County Road Department have not had any sinkhole property damage since 2012 reported.

<p>Cody FL Date of Occurrence: April 2, 1974 <i>(Details below)</i></p>	
<p>Sinkhole Reference Number 54-001 Verified Sinkhole: Date: April 2, 1974 USGS Quadrangle Name:</p>	<p>Slope of Sides: - Water Visible: Yes Water Below Land Surface: - 4 Limestone Visible: Unknown Cave Visible: Unknown</p>
<p>Cody Size Dimensions Unknown Shape of Sinkhole: Unknown Length: 6 ft. Width: 6 ft. Depth: 8 ft.</p>	<p>Subsidence Rate: Unknown Triggering Mechanisms: Excessive Rainfall Pre-collapse indicator:s0 Property Damage Unknown Sinkhole Repaired: Unknown Repair Planned: Unknown Land use Codes: Forest Soil Type: Sand</p> <p>Comments: Very flat, swampy area.</p>

Lake Miccosukee Date of Occurrence June 6, 1989 <i>(Details below)</i>	
Sinkhole Reference Number: 54-002 Verified Sinkhole: Date: June 6, 1989 USGS Quadrangle Name: Lake Miccosukee Size Dimensions: Estimated Shape of Sinkhole: Elongated Length: 12 ft. Width: 6 ft. Depth: 1 ft.	Slope of Sides: - 30 Water Visible: No Water Below Land Surface: - N/A Limestone Visible: No Cave Visible: No Subsidence Rate: Rapid Triggering Mechanisms: Excessive Rainfall Pre-collapse indicators: 0 Property Damage: Unknown Sinkhole Repaired: No Repair Planned: Yes Land use Codes: Not Recorded Soil Type: Clayey Sand

Lamont FL Date of Occurrence February 7, 2004 (Details below)	
Sinkhole Reference Number 54- 003 Verified Sinkhole: Date: February 7, 2004 USGS Quadrangle Name LamontSize Dimensions: Estimated Shape of Sinkhole Circular Length 12 ft. Width: 12ft. Depth: 60ft.	Slope of Sides: - N/A Water Visible: Unknown WaterBelowLandSurface:- Limestone Visible: Unknown Cave Visible: Unknown SubsidenceRate: Unknown Triggering Mechanisms Drought or Low Water Table Pre-collapse indicator:s0 Property Damage: Unknown Sinkhole Repaired Unknown Repair Planned: Unknown Land use Codes: Pasture Soil Type: Unknown Comments: Possible sinkhole in pasture

80 Florida Geological Survey, 2019, <https://floridadep.gov/fgs/data-maps>.

81 Ibid.

Estimated Impacts, Probability, and Extent

Although there is currently no agency with responsibility and authority for sinkhole inspections in Florida, the Florida Geological Survey (FGS) receives calls from property owners all over the state who have had sinkholes develop on their property. The FGS does not have sufficient staff to visit all new sinkholes, but the agency encourages the submittal of a subsidence incident report that is incorporated into a database that can be accessed at

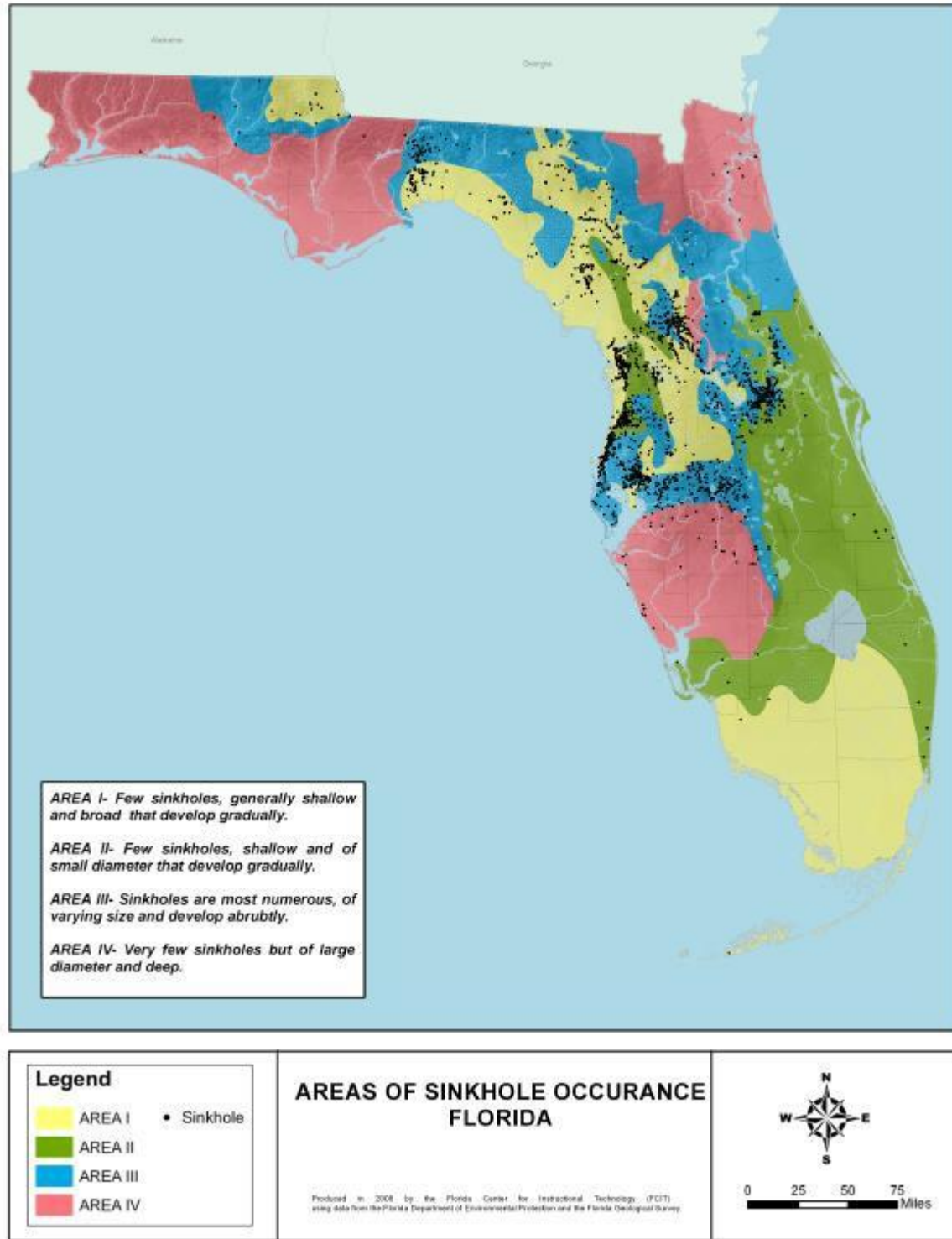
http://www.dep.state.fl.us/geology/gisdatamaps/SIRs_database.htm.

Although sinkholes in Jefferson County generally have not created property damage, the location and Impacts of sinkholes are difficult to predict, as well as the probability and extent of them.

Vulnerability to sinkhole events can be defined as to the extent to which people will experience harm and property will be damaged from the natural hazard. Jefferson County has a medium vulnerability as sinkholes have been noted in the county but large diameter, deep sinkholes could occur and cover collapse sinkholes dominate in the northern area of the county. The probability for sinkholes is medium for the entire county (at least one occurrence every 3 years). The entire planning area (the incorporate, areas of City of Monticello and the unincorporated areas of Jefferson County) are at medium risk to sinkhole events. The worst case scenario were the sinkholes that occurred in February 2004 with the approximate measurements of: 12 +ft.in length, 12 +ft.in width, and 60 ft. in depth, and the October 2010 sinkhole with the approximate measurements of: 12+ ft. in length, 75 ft. in width, and 30 ft. in depth from the ground surface down to the water surface. "If" another sinkhole were to open in Jefferson County (in the northern portion of the county), the county could expect in future events, a large cover-collapse sinkhole based on the data

Even though depressions and sinkholes can be located with ground penetrating radar and other techniques, there is little that can be reasonably done to mitigate the hazard of sinkhole development. Even if known features are identified, this information cannot be used to predict with certainty where additional sinkholes are likely to develop.

Figure 27: Areas of Sinkhole Occurrence: Florida.⁸²



⁸² Florida Center for Instructional Technology, Sinkholes (Tampa, FL: University of South Florida, 2008).

Risk Assessment

Based on an assessment of historical data and frequency of reported damages, sinkholes are classified as a **low risk** to Jefferson County residents. Historical records indicate that the frequency and magnitude of this hazard is tied in part to the frequency of prolonged drought.

2.15 Invasive Plants and Animals

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, the abundance of rain, its diverse ecosystems, its many international visitors and residents, and its 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 like major weather events or even development can create a welcome environment for some native species to behave invasively.

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 (see Appendix__). The purpose of this list is to focus attention on the following:

- adverse effects exotic pest plants have 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 present a threat to native species, but some have become invasive by causing harm to 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 acreages of pines 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 Division of Forestry, the SPB is one of five common species of pine bark beetles 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. This aggressive tree killer is a native insect that lives predominantly in the inner bark of pine trees. Trees attacked by SPB often exhibit hundreds of resin masses (i.e., pitch tubes) on the outer tree bark. 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. SPB also carry, and introduce into trees, blue-stain fungi. These fungi colonize xylem tissue and block water flow within the tree, also causing tree mortality. Consequently, once SPB have successfully colonized a tree, the tree cannot survive, regardless of control measures.⁸³ The table below describes stages and symptoms associated with a southern pine beetle infestation.

Table 42: Stages of Southern Pine Beetle Attack.⁸⁴

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; 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

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

⁸⁴ Forest Encyclopedia Network (2009), <http://www.forestencyclopedia.net/p/p2901>.

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

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 (previously 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 43: Historical Occurrences of Southern Pine Beetle Infestations in Florida, 1995 – 2011.⁸⁶

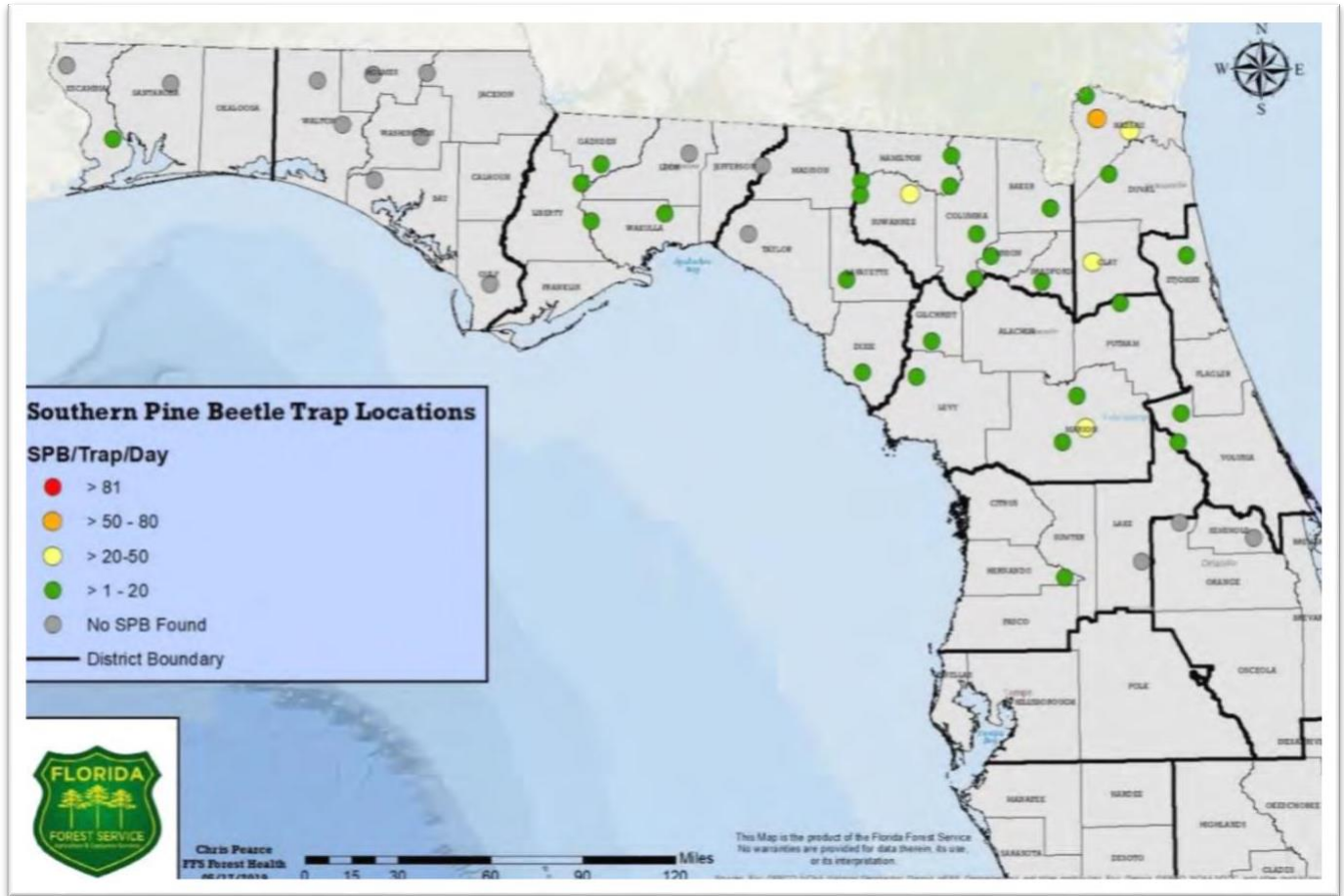
Year	No. of Counties Trapped	SPB/Trap/Day	% SPB	Prediction Trend/Level	No. of Infestations
1995	10	21.0	66	Increasing/Moderate	718
1996	19	0.3	34	Declining/Low	61
1997	19	0.5	22	Static/Low	863
1998	19	7.2	59	Increasing/Low	34
1999	20	1.4	38	Declining/Low	220
2000	21	13.2	62	Increasing/Moderate	1,172

2001	23	45.0	69	Increasing/High	2,892
2002	26	47.0	80	Increasing/High	650
2003	27	2.0	45	Declining/Low	2
2004	27	0.6	19	Static/Low	16
2005	26	4.8	36	Static/Low	7
2006	25	1.0	15	Static/Low	3
2007	26	0.4	25	Static/Low	46
2008	26	0.4	27	Static/Low	?
2009	26	0.7	21	Static/Low	15
2010	26	0.2	25	Static/Low	1
2011	26	0.2	25	Static/Low	

These data indicate that Southern Pine Beetle infestations in Jefferson County and throughout Florida have declined in recent years. The 2012 survey results suggest that SPB populations will remain low at all but one trap location in the 26 counties surveyed across northern and central Florida (Figure 35). Both the total number of SPB/trap/day and %SPB remained static and relatively unchanged from 2011. This suggests that the generally low levels of SPB activity that the state has experienced since 2003 will continue.

⁸⁶ Florida Department of Agriculture and Consumer Services (2015), <http://www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Forest-Health/Forest-Insects/Southern-Pine-Beetle/Spring-Pheromone-Trap-Forecast>.

Figure 29: 2019 Southern Pine Beetle Forecasted Infestation Levels.⁸⁷



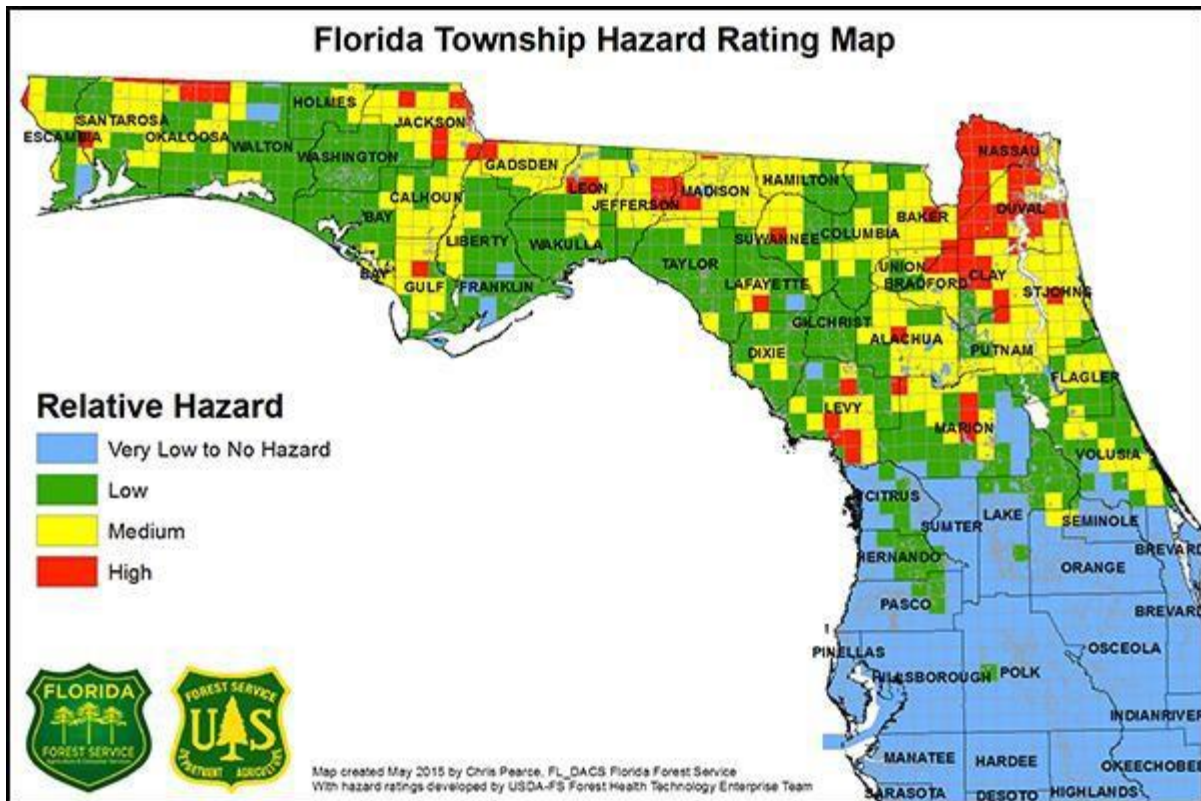
⁸⁷Florida Department of Agriculture and Consumer Services (2019), <https://www.fdacs.gov/Divisions-Offices/Florida-Forest-Service/Our-Forests/Forest-Health/Forest-Insects/Southern-Pine-Beetle>.

Estimated Impacts, Probability, and Extent

SPB outbreaks are periodic events that occur roughly on 6-12 year cycles and in general last two to three years. Between outbreaks, there can be several years with very few or no infestations, characteristic of the past six years in Florida.

The Southern Pine Beetle Florida Township Hazard Rating Map is based on a model developed by the USDA Forest Service - Forest Health Technology Enterprise Team as part of a hazard mapping project for the southeastern United States. The model computes hazard scores based on input variables that estimate the density and basal area of the most susceptible host pine species (e.g., loblolly and shortleaf pine) and soil drainage characteristics. Each township score represents an average for the forested areas within the township. The hazard map is subject to change from year to year with changing forest conditions and improvements made to the hazard model. Hazard is an estimate of where SPB infestations may be likely to develop based on forest conditions; it does not mean that SPB infestations are predicted for a certain area in a given year.

Figure 30: Southern Pine Beetle Florida Township Hazard Rating Map 2015.⁹⁰



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 are capable of sustaining 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.

Other invasive species identified above are well-established in many areas of Jefferson County and the City of Monticello at present. Many terrestrial species exist within lands managed by the federal government and the State of Florida, as well as those managed by local government. Different plant

⁹⁰ Florida Department of Agriculture and Consumer Services (2015), <https://www.fdacs.gov/Divisions-Offices/Florida-Forest-Service/Our-Forests/Forest-Health/Forest-Insects/Southern-Pine-Beetle/Southern-Pine-Beetle-SPB-Hazard-Rating-Map-for-Florida>.

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.

With the exception of 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 for those areas or features they manage, but there are no known summaries of impacts and extent for these species. Nonetheless, the probability based on the historical record of an exotic pest infestations affecting Jefferson County and the City of Monticello is **highly likely**.

Vulnerability Summary

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

Risk Assessment

Despite the recent decline in rates of SPB infestations and the results of the 2012 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.

2.16 Diseases, Epidemics, and Pandemics

General Description and Location

According to the Centers for Disease Control and Prevention (CDC), an *epidemic* refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. An *outbreak* carries the same definition of epidemic, but is often used for a more limited geographic area. A *cluster* refers to an aggregation of cases grouped in place and time that are suspected to be greater than the number expected, even though the expected number may not be known. A *pandemic* refers to an epidemic that has spread over several countries or continents, usually affecting a large number of people.⁹¹

These definitions can apply to other infections subject to global spread, e.g. cholera and HIV. There are no elements of severity in them; while some pandemics are severe in the disease they cause in some individuals or at a population level, not all epidemics, outbreaks, clusters, or pandemics are severe.

The World Health Organization (WHO) has developed a more technical set of requirements for a pandemic. These criteria, which apply to the organisms that create disease, include:

- Ability to infect humans
- Ability to cause disease in humans
- Ability to spread from human to human quite easily.

Influenza is an example of an interpandemic (seasonal) pandemic. According to WHO, pandemic outbreaks or incidences of influenza occur approximately every 35 years. These outbreaks typically last a duration of one to three years. Influenza pandemics are usually transmitted worldwide in six to nine months and are typically characterized by one to three waves lasting four to eight weeks per wave. The table below describes the phases of a pandemic, as identified by WHO.

⁹¹ <https://www.cdc.gov/csels/dsepd/ss1978/lesson1/section11.html>.

Figure 31: Pandemic Phases.⁹²

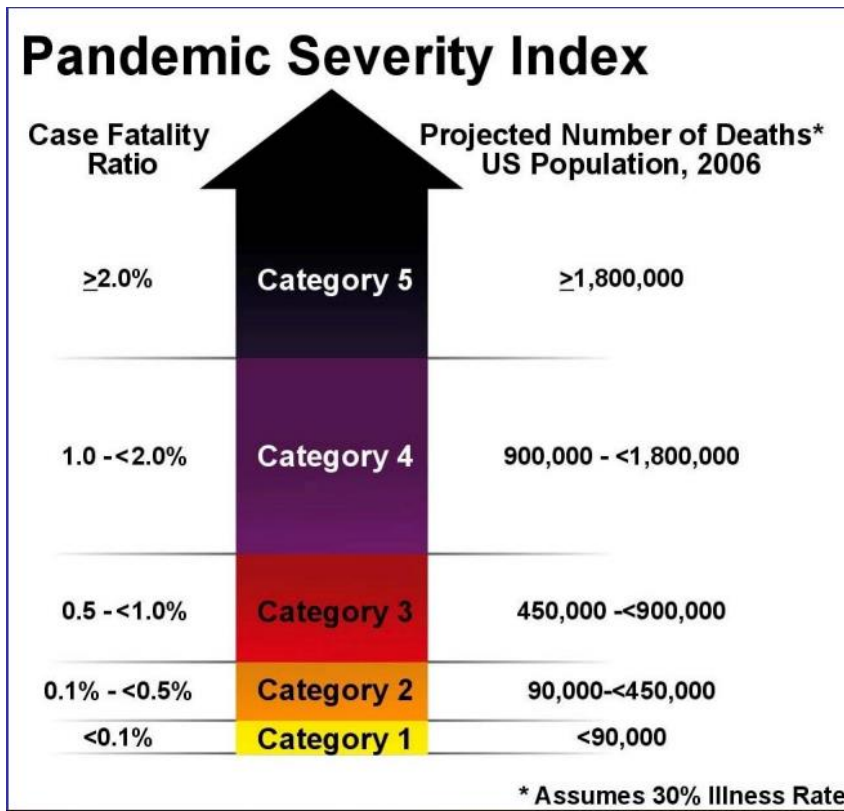
Phases	Description
One	No animal influenza virus circulating among animals has been reported to cause infection in humans.
Two	An animal influenza virus circulating in domesticated or wild animals is known to have caused infection in humans and is therefore considered a specific potential pandemic threat.
Three	An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks.
Four	Human-to-human transmission of an animal or human-animal influenza reassortant virus able to sustain community-level outbreaks has been verified.
Pandemic	
Five	The same identified virus has caused sustained community level outbreaks in two or more countries in one WHO region.
Six	In addition to the criteria defined in Phase 5, the same virus has caused sustained community level outbreaks in at least one other country in another WHO region.
Post-peak	Levels of pandemic influenza in most countries with adequate surveillance have dropped below peak levels.
Possible new wave	Level of pandemic influenza activity in most countries with adequate surveillance rising again.

The increased morbidity (sickness) and mortality (death) associated with severe pandemics can result in social disruption and economic disruption. The CDC created a rational planning tool for communities to measure pandemics, for use by states, communities, businesses and schools, as part of a drive to provide more specific community-level prevention measures, created the Pandemic Severity Index (PSI). The PSI is a proposed classification scale similar in structure to the Saffir-Simpson Hurricane Scale for reporting the severity of influenza pandemics in the United States.

The following figure summarizes the PSI. The PSI is intended to guide local pandemic preparedness efforts based on scenario-based contingency planning. This planning tool is also intended to define which pandemic mitigation strategies are appropriate for implementation based on case fatality ratio, excess death rate, and illness rate caused by the pandemic.

⁹² WHO pandemic phases (WHO 2009), http://www.ecdc.europa.eu/en/healthtopics/pandemic_preparedness/basic_facts/pages/who_pandemic_phases.aspx.

Figure 32: Pandemic Severity Index, 2007.⁹³



The PSI is accompanied by a set of guidelines for communities to follow in potential pandemic situations. These guidelines include:

- Isolation and treatment of people who have suspected or confirmed cases of pandemic influenza
- Voluntary home quarantine of household contacts of those with suspected or confirmed pandemic influenza
- Dismissing school classes and closing daycare centers
- Changing work schedules and canceling large public gatherings

These guidelines when implemented can have an overall effect of reducing the number of new cases of the disease, but they can create potentially adverse consequences in terms of community and social disruption. The measures should have the most noticeable impact if implemented uniformly by organizations and governments across the US. A more detailed description of these guidelines is presented in the following table.

⁹³ Centers for Disease Control and Prevention, 2007.

Figure 33: Community Strategies by Pandemic Influenza Severity.⁹⁴

Interventions by Setting	Pandemic Severity Index		
	1	2 and 3	4 and 5
<p>Home</p> <p>Voluntary isolation of ill at home (adults and children); combine with use of antiviral treatment as available and indicated</p> <p>Voluntary quarantine of household members in homes with ill persons (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient</p>	Recommend	Recommend	Recommend
<p>School</p> <p>Child social distancing –dismissal of students from schools and school-based activities, and closure of child care programs –reduce out-of-school contacts and community mixing</p>	Generally not recommended	Consider	Recommend
	Generally not recommended	Consider: ≤ 4 weeks	Recommend: ≤ 12 weeks
	Generally not recommended	Consider: ≤ 4 weeks	Recommend: ≤ 12 weeks

(Continued on next page)

⁹⁴ Handbook for Pandemic and Mass-casualty Planning and Response. Volume 100 NATO Science for Peace and Security Series - E: Human and Societal Dynamics Edited by Elin A. Gursky, Boris Hrečkovski. 2012.

Interventions by Setting	Pandemic Severity Index		
	1	2 and 3	4 and 5
<p>Workplace/Community</p> <p>Adult social distancing</p> <p>–decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings)</p> <p>–increase distance between persons (e.g., reduce density in public transit, workplace)</p> <p>–modify, postpone, or cancel selected public gatherings to promote social distance (e.g., stadium events, theater performances)</p> <p>–modify workplace schedules and practices (e.g., telework, staggered shifts)</p>	<p>Generally not recommended</p> <p>Generally not recommended</p> <p>Generally not recommended</p> <p>Generally not recommended</p>	<p>Consider</p> <p>Consider</p> <p>Consider</p> <p>Consider</p>	<p>Recommend</p> <p>Recommend</p> <p>Recommend</p> <p>Recommend</p>

Diseases and Pandemics can affect all or portions of Jefferson County and the City of Monticello. There are many diseases that can spread wide enough to be an epidemic or pandemic. These include:

- Chikungunya
- Cholera
- Novel Coronavirus (SARS-CoV-2)
- Crimean-Congo haemorrhagic fever
- Ebola virus disease
- Hendra virus infection
- Influenza (pandemic, seasonal, zoonotic)
- Lassa fever
- Marburg virus disease
- Meningitis
- MERS-CoV
- Monkeypox
- Nipah virus infection
- Plague
- Rift Valley fever
- SARS
- Smallpox
- Tularaemia
- Yellow fever
- Zika virus disease

Only a few of these diseases may affect Jefferson County and the City of Monticello. Certainly, due mainly to centralized sewer systems and other regulated methods of water treatment and distribution and wastewater treatment, cholera is no longer an issue. Thanks to the success of vaccination, the last natural outbreak of smallpox in the United States occurred in 1949. In 1980, the World Health Assembly declared smallpox eradicated (eliminated), and no cases of naturally occurring smallpox have happened since.⁹⁵

The yellow fever virus is found in tropical and subtropical areas of Africa and South America. The virus is spread to people by the bite of an infected mosquito. Yellow fever is a very rare cause of illness in

U.S. travelers. Illness ranges from a fever with aches and pains to severe liver disease with bleeding and yellowing skin (jaundice). Yellow fever infection is diagnosed based on laboratory testing, a person's symptoms, and travel history. There is no medicine to treat or cure infection.⁹⁶ Yellow fever is not an issue in the U.S. at present.

Many of the other diseases above are not an issue in the U.S., including Florida. However, Influenza can be, as well as Meningitis, and Chikungunya and Zika are being closely watched by public health authorities as they could be brought into parts of the U.S. where tropical conditions are found, including Florida. In late 2013, Chikungunya virus was found for the first time in the Americas on islands in the Caribbean. There is a risk that the virus will be imported to new areas by infected

⁹⁵ <https://www.cdc.gov/smallpox/index.html>.

⁹⁶ <https://www.cdc.gov/yellowfever/index.html>.

travelers. There is no vaccine to prevent or medicine to treat Chikungunya virus infection. Zika is a similar disease in that it is transmitted by mosquitoes and that there is no vaccine or medicine available to treat Zika.⁹⁷

An ongoing pandemic of Novel Coronavirus disease 2019 (COVID-19), caused by the SARS-CoV-2 virus, started in December 2019. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness. Currently, two vaccines are authorized and recommended to prevent COVID-19:

- [Pfizer-BioNTech COVID-19 vaccine](#)
- [Moderna's COVID-19 vaccine](#)

Historical Occurrences

Influenza

Annual influenza epidemics are estimated to affect 5–15% of the global population. Although most cases are mild, these epidemics still cause severe illness in 3–5 million people and 250,000–500,000 deaths worldwide. On average 41,400 people die of influenza-related illnesses each year in the United States, based on data collected between 1979 and 2001. In industrialized countries, severe illness and deaths occur mainly in the high-risk populations of infants, the elderly and chronically ill patients, although the H1N1 flu outbreak (like the 1918 Spanish flu) differs in its tendency to affect younger, healthier people.

Throughout the 20th century, there were three influenza pandemics occurring in 1918, 1957, and 1968. Though estimates vary, the influenza epidemic that swept the world in 1918 is estimated to have killed 50 to 100 million people. The 1918 pandemic, or the “Spanish Flu,” affected approximately one-fifth of the world’s population. Within months, it had killed more people than any other illness in Recorded history. The plague emerged in two phases. In late spring of 1918, the first phase, known as the “three-day fever,” appeared without warning. Few deaths were reported. Victims recovered after a few days. When the disease surfaced again that fall, it was far more severe. In the U.S., about 28% of the population suffered, and 500,000 to 675,000 died.

Recently, concerns have been raised as to the potential for a global avian influenza (A-H5N1) pandemic. The first time that influenza A-H5N1 infected humans occurred in Hong Kong in 1997 followed by a resurfacing of the virus in Vietnam and Thailand in late 2003. The westward spread of the virus began in 2004. While person to person transmission of the disease has been limited, health experts are concerned that as H5N1 continues to evolve it will become better adapted to humans and result in sustained and efficient person-to-person transmission with a global impact similar to 1918 pandemic levels. In November 2004, the director for the western region of the World Health Organization said that an influenza pandemic was inevitable and called for urgent plans to combat the virus.

WHO has reported 630 cases of human cases of H5N1 from 15 countries since 2003, with 375 confirmed fatalities. The following table indicates the number of cases and deaths by time, and Figure 39 depicts the spread of H5N1 avian influenza across the African and Asian continents and the number of confirmed cases as of 2013.

Figure 34: Cumulative Number of Confirmed Human Cases for Avian Influenza A(H5N1) Reported to WHO, 2003-2013.⁹⁹


Cumulative number of confirmed human cases for avian influenza A(H5N1) reported to WHO, 2003-2013

Country	2003-2009*		2010		2011		2012		2013		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	8	5	0	0	0	0	0	0	0	0	8	5
Bangladesh	1	0	0	0	2	0	3	0	1	1	7	1
Cambodia	9	7	1	1	8	8	3	3	11	8	32	27
China	38	25	2	1	1	1	2	1	2	2	45	30
Djibouti	1	0	0	0	0	0	0	0	0	0	1	0
Egypt	90	27	29	13	39	15	11	5	4	3	173	63
Indonesia	162	134	9	7	12	10	9	9	0	0	192	160
Iraq	3	2	0	0	0	0	0	0	0	0	3	2
Lao People's Democratic Republic	2	2	0	0	0	0	0	0	0	0	2	2
Myanmar	1	0	0	0	0	0	0	0	0	0	1	0
Nigeria	1	1	0	0	0	0	0	0	0	0	1	1
Pakistan	3	1	0	0	0	0	0	0	0	0	3	1
Thailand	25	17	0	0	0	0	0	0	0	0	25	17
Turkey	12	4	0	0	0	0	0	0	0	0	12	4
Viet Nam	112	57	7	2	0	0	4	2	2	1	125	62
Total	468	282	48	24	62	34	32	20	20	15	630	375

* 2003-2009 total figures. Breakdowns by year available on next table

Total number of cases includes number of deaths
 WHO reports only laboratory cases
 All dates refer to onset of illness

Source: WHO/GIP, data in HQ as of 04 June 2013



According to the WHO, A total of 24 laboratory-confirmed cases of human infection with influenza A(H5N6) virus have been reported to WHO from China since 2014.

Swine Influenza

Swine influenza (swine flu) is a respiratory disease of pigs caused by type A influenza viruses that regularly cause outbreaks of influenza in pigs. Influenza viruses that commonly circulate in swine are called “swine influenza viruses” or “swine flu viruses.” Like human influenza viruses, there are different subtypes and strains of swine influenza viruses. The main swine influenza viruses circulating in U.S. pigs in recent years are:

- swine triple reassortant (tr) H1N1 influenza virus
- trH3N2 virus
- trH1N2 virus¹⁰⁰

Swine flu viruses do not normally infect humans. However, sporadic human infections with swine influenza viruses have occurred, including within the United States.

The H1N1 flu virus caused a world-wide pandemic in 2009. It is now a human seasonal flu virus that also circulates in pigs. According to the latest WHO statistics (July 2010), the virus has killed more than 18,000 people since it appeared in April 2009.¹⁰¹ Several of these fatalities have occurred in Florida.

The Jefferson County Health Department confirmed in early 2014 that there have been one or more cases of H1N1 in Jefferson County. However, it is not currently possible under the federal Health Insurance Portability and Accountability Act to gather statistics from local hospitals regarding the specific number of cases and possible deaths from H1N1. Furthermore, H1N1 is not a recordable illness in the state of Florida, meaning cases of death specifically relating to H1N1 involving people 18 or older are not recorded or required to be reported to the FDH in Jefferson County.¹⁰²

Ebola^{103 104}

Ebola virus disease (EVD), Ebola hemorrhagic fever (EHF), or simply Ebola is a disease of humans and other primates caused by a virus. Symptoms start two days to three weeks after contracting the virus, with a fever, sore throat, muscle pain and headaches. Typically, vomiting, diarrhea and rash follow, along with decreased function of the liver and kidneys. Around this time, affected people may begin to bleed both within the body and externally.

The virus may be acquired upon contact with blood or bodily fluids of an infected animal. Spreading through the air has not been documented in the natural environment. Fruit bats are believed to be a carrier and may spread the virus without being affected. Once human infection occurs, the disease may spread between people, as well. Male survivors may be able to transmit the disease via semen for nearly two months. To make the diagnosis, typically other diseases with similar symptoms such as malaria, cholera and other viral hemorrhagic fevers are first excluded. To confirm the diagnosis, blood samples are tested for viral antibodies, viral RNA, or the virus itself.

Prevention includes decreasing the spread of disease from infected animals to humans. This may be done by checking such animals for infection and killing and properly disposing of the bodies if the disease is discovered. Properly cooking meat and wearing protective clothing when handling meat may also be helpful, as are wearing protective clothing and washing hands when around a person with the disease. Samples of bodily fluids and tissues from people with the disease should be handled with special caution. No specific treatment for the disease is yet available.

¹⁰⁰ U.S. Centers for Disease Control and Prevention < <http://www.cdc.gov/flu/swineflu/>>.

¹⁰¹ http://en.wikipedia.org/wiki/2009_flu_pandemic.

¹⁰² <http://www.thefamuanonline.com/news/view.php/774999/Health-department-confirms-H1N1-cases-in>.

¹⁰³ http://en.wikipedia.org/wiki/Ebola_virus_disease.

The 2014 Ebola outbreak is the largest in history and the first Ebola epidemic the world has ever known—affecting multiple countries in West Africa. A small number of cases in Lagos and Port Harcourt, Nigeria, have been associated with a man from Liberia who traveled to Lagos and died from Ebola, but the virus does not appear to have been widely spread in Nigeria. The case in Senegal is related to a man who traveled there from Guinea.

CDC has issued a Warning, Level 3 travel notice for three countries. U.S. citizens should avoid all nonessential travel to Guinea, Liberia, and Sierra Leone. CDC has issued an Alert, Level 2 travel notice for Nigeria. Travelers to Nigeria should take enhanced precautions to prevent Ebola. CDC has also issued an Alert, Level 2 travel notice for the Democratic Republic of the Congo (DRC). A small number of Ebola cases have been reported in the DRC, though current information indicates that this outbreak is not related to the ongoing Ebola outbreaks in Guinea, Liberia, Nigeria and Sierra Leone.

As of October 2014, at least one confirmed Ebola case has been reported in the United States. Another four U.S. health workers infected with Ebola virus in West Africa were transported to hospitals in the United States. Two of the patients have recovered and been released from the hospital after laboratory testing confirmed that they no longer have Ebola virus in their blood. CDC has advised that there is no public health concern with their release and that they do not pose a risk to household contacts or to the public.

Although the risk of an Ebola outbreak in the United States is very low, CDC is working with other U.S. government agencies, the World Health Organization (WHO), and other domestic and international partners and has activated its Emergency Operations Center to help coordinate technical assistance and control activities with its government, non-profit, profit, and other partners. CDC has also deployed teams of public health experts to West Africa and will continue to send experts to the affected countries.

2019 Novel Coronavirus

As of January 12, 2021, the 2019–20 Novel Coronavirus pandemic is ongoing, caused by the SARS-CoV-2 Novel (new) Coronavirus. It was first identified in Wuhan, the capital of Hubei, China. As of January 12, 2021, 89,416,559 million cases of COVID-19 (the disease caused by the coronavirus) have been reported in 223 countries and territories, resulting in more than 1,935,028 deaths. The deaths per diagnosed cases varies significantly between countries.¹⁰⁵ Also as of this date, there are 1.49 million total confirmed cases in Florida with 1,127 confirmed total cases of COVID-19 in Jefferson County (56 hospitalizations and 18 fatalities reported).¹⁰⁶

¹⁰⁵ https://en.wikipedia.org/wiki/2019%E2%80%9320_coronavirus_pandemic.

¹⁰⁶ <https://experience.arcgis.com/experience/96dd742462124fa0b38ddedb9b25e429>

Estimated Impacts, Probability, and Extent

The potential impact of a pandemic on the local population was previously estimated for the 2010 LMS using a Center for Disease Control (CDC) computer model. This model is available online at <http://www.cdc.gov/flu/pandemic-resources/tools/flusurge.htm>. FluSurge 2.0, a program created by the CDC, was utilized by local government staff in 2009 to assess the potential impacts of a pandemic influenza outbreak on the local population in Jefferson County. This program calculates the likely number of hospital admissions and death based on local healthcare facilities and equipment and the age of the local population. Young children and older adults (65 years and older) are considered particularly vulnerable groups of the population.

Jefferson County Pandemic Influenza Vulnerability Analysis

Based on analysis of current population and local healthcare facilities, FluSurge 2.0 was used in 2009 to generate a pandemic influenza scenario in Jefferson County.

Based on the results of this analysis, a pandemic modeled on conditions during the 1918 influenza pandemic lasting six to eight weeks with a 35 percent impact rate would result in 100 hospitalizations and 17 deaths in Jefferson County. The results of this analysis for the 35 percent impact rate (similar to the 1918 influenza pandemic) only are displayed the following table below for Jefferson County, the incorporated area, and the unincorporated area only.

Table 44: Jefferson County Pandemic Influenza Impact, 2009 (Assumes 35% of Population Affected for a Duration of 6 -8 Weeks). (Jefferson County does not have a hospital)

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8
Hospital Admission	Weekly admissions	5	8	13	16	16	13	8	5
	Peak admissions/day				3	3			
Hospital Capacity	# of influenza patients in hospital	4	6	9	12	12	11	8	5
	% of hospital capacity needed	0	0	0	0	0	0	0	0
ICU Capacity	# of influenza patients in ICU	1	2	2	3	4	3	3	2
	% of ICU capacity needed	0	0	0	0	0	0	0	0
Ventilator Capacity	# of influenza patients on ventilators	0	1	1	2	2	2	1	1
	% usage of ventilator	0	0	0	0	0	0		
Deaths	# of deaths from influenza			1	2	3	4	4	3
	# of deaths in hospital			1	1	2	3	3	2

City of Monticello Pandemic Influenza Vulnerability Scenario

Based on the results of this analysis, a pandemic modeled on conditions during the 1918 influenza pandemic lasting six to eight weeks with a 35 percent impact rate would result in 0 hospitalizations and 0 deaths in the City of Monticello. The results of this analysis for the City of Monticello are displayed in the tables and figures below.

Table 45: City of Monticello Pandemic Influenza Impact, 2009 (Assumes 35% of Population Affected for a Duration of 6 -8 Weeks).

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9	10
Hospital Admission	Weekly admissions	0	1	1	1	1	1	1	0		
	Peak admissions/day				0	0					
Hospital Capacity	# of influenza patients in hospital	0	1	1	1	1	1	1	0		
	% of hospital capacity needed	0%	0%	0%	0%	0%	0%	0%	0%		
ICU Capacity	# of influenza patients in ICU	0	0	0	0	0	0	0	0		
	% of ICU capacity needed	0%	0%	0%	0%	0%	0%	0%	0%		
Ventilator Capacity	# of influenza patients on ventilators	0	0	0	0	0	0	0	0		
	% usage of ventilator	0%	0%	0%	0%	0%	0%	0%	0%		
Deaths	# of deaths from influenza			0	0	0	0	0	0	0	0
	# of influenza deaths in hospital			0	0	0	0	0	0	0	0

Based on the data presented above and the historical record, the probability based on the historical record of a global disease outbreak or pandemic affecting Jefferson County and the City of Monticello is **occasional**. However, when a novel virus such as the 2019 Novel Coronavirus reaches Jefferson County and the City of Monticello, all citizens can be potentially affected. At this time, the probability of this virus affecting citizens is highly likely if no mitigation measures are put into place. However, there are a number of such measures already implemented, including social distancing, state and local stay-in- place measures, requirements to wear masks in certain public places, and other mitigation actions.

Vulnerability Summary

Based on the information presented above, Jefferson County residents are considered vulnerable to a pandemic influenza outbreak, as are the rest of Florida and the United States in general. Special needs and homeless populations have an increased vulnerability to this pandemic. Special needs individuals in group homes cannot easily social distance, and homeless people cannot be easily tested unless they are staying at a shelter and show symptoms that would warrant a test. Asymptomatic and symptomatic individuals who are homeless and not living or staying in a shelter can easily infect other individuals, which spreads viruses further. Crowded shelters are very vulnerable to virus infections due to a lack of social distancing and potential hygiene issues.

A discussion of vulnerability should include global climate change—with its anticipated warming and associated sea level rise—as a driver of changing ambient environmental conditions that could create conditions under which mosquito-borne diseases such as Meningitis, and Chikungunya and Zika could be brought into parts of the U.S. where tropical conditions are found, including Florida. The risk that these viruses could be imported to new areas by infected travelers only adds to this potential increased vulnerability.

Risk Assessment

Although flu season occurs annually, an influenza pandemic has historically been considered at this time to be a **low** risk for Jefferson County residents. However, the 2019 Novel Coronavirus pandemic and the COVID-19 disease it creates in humans has affected every county in Florida. Therefore, for a pandemic like the 2019 Novel Coronavirus, Jefferson County is already affected.

The other pandemic that is currently of concern to many citizens is Ebola, but it is considered a **low** risk at present for Jefferson County residents. CDC has activated its Emergency Operations Center (EOC) to help coordinate technical assistance and control activities with partners. CDC has deployed several teams of public health experts to the West Africa region and plans to send additional public health experts to the affected countries to expand current response activities.

In late September 2014, the first case of Ebola in the United States was confirmed as the result of an ill traveler having arrived in the U.S. CDC has existing protocols in place to protect against further spread of disease. These protocols include having airline crews notify CDC of ill travelers on a plane before arrival, evaluation of ill travelers, and isolation and transport to a medical facility if needed. CDC, along

with Customs & Border Patrol, has also provided guidance to airlines for managing ill passengers and crew and for disinfecting aircraft. In addition, CDC has issued a Health Alert Notice reminding U.S. healthcare workers about the importance of taking steps to prevent the spread of this virus, how to test and isolate patients with suspected cases, and how to protect themselves from infection. The Jefferson County Health Department, the local clinics, and other health facilities will utilize these guidelines and protocols as necessary if an outbreak of Ebola occurs locally.

The Centers for Disease Control and Prevention offers information to states and local governments to assist in planning for an influenza pandemic such as the 2019 Novel Coronavirus at <https://www.cdc.gov/flu/pandemic-resources/planning-preparedness/state-local-government-planning.html>.

2.17 Technological and Societal Hazards

As part of the 2020 LMS update, technological and societal hazards in the previously adopted plan were reviewed and reordered. Those that were selected by the Working Group include:

- 1) Public Infrastructure Failures
 - (a) Telecommunications
 - (b) Cybersecurity
 - (c) Electricity, Water, and Sewer
 - (d) Dams
- 2) Hazardous Materials (Storage and Transportation)
- 3) Transportation Incidents
 - (a) Roadways
 - (b) Railways
 - (c) Aviation
- 4) Terrorism
 - (a) Violent Acts
 - (b) Biohazards
 - (c) Cyber Attacks

Although the purpose of the LMS is to address community vulnerability to natural hazards, plans for addressing local vulnerability to societal and technological hazards are developed, maintained, and updated by other local agencies and departments. The Jefferson County Comprehensive Emergency Management Plan addresses the period immediately following any significant emergencies, which include natural, technological, and societal hazards.

Although there are other planning and procedural documents that address all or a portion of the technological and societal hazards listed here, updated hazard profiles for the above hazards are included here.

2.18 Public Infrastructure Failures

Public infrastructure includes basic services such as roads, bridges, and highways; electric and natural gas generation, transmission, and distribution systems; freshwater distribution and wastewater collection and treatment systems; waste collection, recycling, and disposal systems; and fire, police, and communication systems.

Based on experiences gained in hazardous events like hurricanes, Jefferson County and the City of Monticello have learned which systems are vulnerable to particular hazards, and how to generally mitigate these hazards. Examples include staging generators at critical facilities, trimming trees around power lines, repositioning utility trucks, and arranging schedules of government staff and volunteers. Other measures include the permanent installation of generators, rebuilding and upgrading building components such as windows and roofs, and

The failure of public infrastructure from hazards can occur suddenly or slowly, depending on the event and its effects, and it can affect different populations in different areas. Loss of electricity is perhaps the most significant cause of public infrastructure failure, followed by flooding. The loss of electricity locally is usually caused from trees falling onto transmission and distribution powerlines. The loss of electricity can also cause traffic lights at intersections to fail, as well as wastewater collection facilities.

Critical facilities can include public infrastructure elements. They include one or more of the following:

- nursing homes, medical service facilities
- Police stations, fire stations, storage of critical records
- Publicly-owned dams
- Electric generating stations and transmission and distribution lines and other relative facilities
- Government buildings and law enforcement offices
- Evacuation shelters and emergency operation centers that are needed for flood response activities before, during, or after a flood
- Public and private utility (water and wastewater) facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood
- Telecommunications facilities, including radio, cellular, and/or television transmission towers
- Schools
- Landfills, and
- Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic and/or water-reactive materials.

The explosive growth of the use of computers and the use of the Internet to connect them together has increased the ability to manage complex systems such as traffic management, water and sewer and energy management and distribution, emergency management systems, fire and police responses, and other types of infrastructure. These computerized systems and their physical connections through fiber optic or other types of cables have become another aspect of infrastructure itself. At the same time, the potential of these computerized systems to be hacked by amateurs and professions intent on harassment, extortion, or worse has grown. Cybersecurity is a growing need in an ever-increasingly connected world.

When critical facilities that comprise elements of public infrastructure are affected by hazards, this can create life safety issues for our community. Those public infrastructure elements most vulnerable to hazards are discussed below.

General Description and Location

Telecommunications

Telecommunication is the transmission of signs, signals, messages, words, writings, images and sounds or information of any nature by wire, radio, optical or other electromagnetic systems.¹⁰⁸

A telecommunications network is a collection of transmitters, receivers, and communications channels that send messages to one another.¹⁰⁹ Telecommunication technologies may primarily be divided into wired and wireless methods. The former includes fiber optic cables, telephone wires, cable wiring (for both TV and internet), and the later can include microwave transmissions, satellite transmissions, and cell phone data and voice service via cell towers. Examples of all of these forms of wired and wireless communication can be found various locations in Jefferson County and the City of Monticello. Examples of local economic activities, industries, infrastructure systems, and other organizations include:

- Financial systems
- Utilities and industrial equipment
- Consumer devices
- Corporations
- Government
- Medical systems
- Energy sector

As the “Internet of things” increases its reach, these activities and the computers and telecommunications systems we increasingly rely on become more critical to our economy, and possibly more vulnerable to failures from natural and other hazards.

Cybersecurity

Computer security, cybersecurity, or information technology security (IT security) is the protection of computer systems from the theft of or damage to their hardware, software, or electronic data, as well as from the disruption or misdirection of the services they provide.¹¹⁰

The field is becoming more important due to increased reliance on computer systems, the Internet and wireless network standards such as Bluetooth and Wi-Fi, and due to the growth of "smart" devices, including smartphones, televisions, and the various devices that constitute the "Internet of things."

¹⁰⁸ https://en.wikipedia.org/wiki/Telecommunication#Wireless_telecommunication.

¹⁰⁹ Ibid.

¹¹⁰ https://en.wikipedia.org/wiki/Computer_security.

Owing to its complexity, both in terms of politics and technology, cybersecurity is also one of the major challenges in the contemporary world.¹¹¹

Cybersecurity is a rapidly increasing necessity in Jefferson County and the City of Monticello. Many local institutions have been experiencing security issues for years because of vulnerabilities to online and other forms of attacks on computer systems through email and the internet. A vulnerability is a weakness in design, implementation, operation or internal control. Vulnerabilities are often hunted or exploited with the aid of automated tools or manually using customized scripts. To secure a computer system, it is important to understand the kinds of threats that exist. These are typically classified into one of the categories below:¹¹²

- Backdoor (bypassing of authentication or security protocols)
- Denial-of-service attack
- Direct-access attacks
- Eavesdropping (between computer servers)
- Multi-vector, polymorphic attacks
- Phishing (deceiving users)
- Privilege escalation
- Social engineering (fraud)
- Spoofing (masquerading)
- Tampering

Systems vulnerable to attack from one or more of these threats include:

- Financial systems
- Utilities and industrial equipment (telecommunications, power grid, nuclear power plants, valve in water and gas networks, etc.)
- Consumer devices (Desktop computers, laptops, smartphones, tablet computers, smart watches, and other mobile devices such as activity trackers)
- Large corporations
- Automobiles
- Government and military computer systems
- Local and regional government infrastructure such as traffic light controls, police and intelligence agency communications, personnel records, student records, and financial systems
- Medical systems
- Energy sector

While both the City of Monticello, Jefferson County, state agencies, and larger corporations have all instituted comprehensive cybersecurity programs, hackers, criminals, and others who are employed by adversarial governments and other institutions are

¹¹¹ Ibid.

¹¹² Ibid.

constantly looking for vulnerabilities and opportunities to damage or disable computer systems and the infrastructure they increasingly control. As more computer-controlled infrastructure comes online (such as autonomous vehicles), the threat may increase with time.

Electricity, Water, and Sewer Failures

The City of Monticello owns and operates its own utilities, including water, and wastewater treatment (sewer) systems. There are also areas within the unincorporated area of the county where other utility providers have franchises, including Tri-County Electric Cooperative and Duke Energy..

The failure of these utilizes can vary depending on the hazard, event, vulnerability, and other factors. The recent experiences in hurricanes Hermine and Michael indicated that gas and water utilities did not fail during these events, but wastewater and electric infrastructure are vulnerable and co-dependent (i.e., sewer lift stations won't work without reliable electricity). Many so-called high performance septic tanks can also be affected by the lack of electricity following a storm or other energy failure because the pumps these systems use are powered by electricity.

Although a full description of the electric system (generating facilities, transmission, and distribution grids) and wastewater treatment systems is not available for this plan due to security protocols, the failure of these systems, as well as the computer systems they rely on, can be quite significant.

Dam Failures

A dam is defined as an artificial barrier with the ability to impound water, wastewater, or any liquid-borne material, for the purpose of storage or control of water. A dam failure is a catastrophic type of failure, characterized by the sudden, rapid, and uncontrolled release of impounded water or the likelihood of such an uncontrolled release.

- overtopping caused by floods that exceed the capacity of the dam;
- deliberate acts of sabotage;
- structural failure of materials used in dam construction;
- movement and/or failure of the foundation supporting the dam;
- settlement and cracking of concrete or embankment dams;
- piping and internal erosion of soil in embankment dams; and
- Inadequate maintenance and upkeep.

Dam failures are usually a secondary effect of massive rainfall and flooding, and occur when too much water enters the spillway system. This will occur with little or no warning. Severe thunderstorms and heavy rainfall are contributory factors. Additionally, poor engineering or poor maintenance may also cause dam failures. According to the Federal Emergency Management Agency, dam failure can be attributed to one or more of the following reasons:

Although there are no dams located within the City of Monticello, the jurisdiction could be affected by the failure or break of nearby dams or levees, which would result in some minor flooding and damage.

¹¹⁴ Florida Statute, Chapter 62-672, Minimum Requirements for Earthen Dams; 62-672.200

Figure 35: Dams in Jefferson County, Florida, 2014.

Name	River/Creek Lake	Height (feet)	Storage (acre- ft)	Drainage Area
Unnamed Dam	Lloyd Creek	20	198	
Kissaway Plantation Dam	Ward Creek	20	330	
Lake Fontaine Dam	Lake Fontaine	15	297	1.72
Mays Pond Plantation Dam	Lake Miccosukee	12	67	0.27
Sedgwick Dam	Alagood Lake	12	218	2.97
Simpson Nursery	Wolf Creek	15	65	1.44

Historical Occurrences

Telecommunications & Cybersecurity

Data for telecommunications & cybersecurity failures are not easily obtainable. Many of these types of disruptions are not publicized for various reasons, including organizations not wanting to publicly state that their computer hardware and/or software systems are vulnerable to particular attacks.

Electricity, Water, and Sewer Failures

Data for electricity, water, and sewer failures and disruptions are not easily obtainable. Nevertheless, based on local experience, most energy disruptions and failures are usually weather-related, affect relatively small areas, and are usually quickly resolved. These small disruptions occur from a variety of impacts to the electric system, including storm impacts (e.g., trees, flooding, wind), overloads in areas where development has approached the capacity of existing facilities, or from trees or branches falling on power lines, animals such as squirrels, or even automobiles or truck accidents involving utility poles. Given Monticello's extensive tree canopy, it is not uncommon for disruptions to occur from trees falling over, or branches falling onto electrical line. Duke Energy and Tri-County Electric Cooperative both have ongoing programs to trim tree canopies away from power lines.

Larger failures and/or disruptions can and often do occur with major weather events, including severe thunderstorms and tropical cyclones, including tropical storms and hurricanes. One of the most severe events in recent memory was Hurricane Kate in 1985. This hurricane downed power poles and lines throughout Jefferson County. Along the coast from Panama City to Apalachicola, the storm left about 30,000 homes and businesses without electricity.¹¹⁸ Based on the reliance of Duke and TCEC on overhead lines in older developed areas, it is anticipated that electrical energy failures or disruptions can be expected within major weather events.

Major electric outages were also associated with hurricanes Hermine in 2016 and Michael in 2018. Following Hurricane Hermine, Duke Energy also experienced significant outages during these events, although data on exactly how many is not available. The damage to these systems was varied and including wind and tree damage to various parts of the transmission and distribution systems

¹¹⁸ http://en.wikipedia.org/wiki/Hurricane_Kate_%281985%29.

In order to minimize disruptions of the City's potable water, wastewater treatment, and traffic management systems by hurricanes and tropical storms, City staff deploy portable generators at critical potable water wells and pumps, sewer lift stations.

Dam Failures

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 with a two-month time frame at a cost of approximately \$300,000. Lake Miccosukee has a ravine through the center of the lake. 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, the various levees, dikes, and dams located throughout Jefferson County are not known to protect areas against the 1% annual chance flood

Estimated Impacts, Probability, and Extent

Telecommunications

The City of Monticello and Jefferson County are vulnerable to telecommunications failures associated with hurricanes and tropical storms. Other hazards may affect portions of these systems (e.g., a tornado or lightning takes out a cell phone or microwave transmitting tower), but these would be relatively sporadic events.

As experienced by residents of Mexico Beach and Panama City and its nearby towns such as Lynn Haven, Hurricane Michael damaged or destroyed a number of cell phone and other communication towers, as well as power and telephone lines, and thus citizens could not obtain information, request services, or maintain contact with their friends, families, employers, and others. The probability of such events has been discussed in that part of this plan describing hurricanes and tropical storms. The extent of such impacts would be consistent with the degree of impacts by these events but may vary depending on the local impacts of such storms. Subsequently, the probability of a telecommunications failure based on the historical record locally is **occasional**.

¹²⁰ Association of State Dam Safety Officials, <http://www.damsafety.org/news/?p=412f29c8-3fd8-4529-b5c9-8d47364c1f3e>.

Cybersecurity

Thanks to the increased use of antiviral software, security designs, architecture, and measures, vulnerability management, hardware protection, and end user training and enhanced digital hygiene, many organizations are less vulnerable than they were previously to traditional online and email attacks. However, there are many examples of ongoing vulnerabilities being exploited, including unauthorized releases of data, phishing, digital extortion, and other breaches. These activities are continuing and, in many ways, growing. Voting machines and databases are increasingly vulnerable to disruptions and hacking, and privacy laws and practices are continuing to evolve, often as a result of these breaches and unauthorized releases. This is an area that is quite complex, difficult to quantify, and subject to rapid change as the use of computerized technologies continues to evolve as well. Nevertheless, the probability of a cyberattack on the institutions described above in Jefferson County is **highly likely**.

Electricity, Water, and Sewer Failures

If generators are prepositioned in advance of significant weather events such as hurricanes and tropical storms, water wells and distribution networks and wastewater collection and treatment systems are relatively impervious to significant damages from these events. (The exception would be those systems or components located in area vulnerable to flooding.)

As previously indicated, most small electric power failures or disruptions are resolved relatively quickly, and so are considered nuisance events rather than life-threatening. They can affect a few houses, hundreds of houses, or even whole parts of town. However, larger events are relatively rare.

Larger, longer events can present significant impacts to citizens, including residents and visitors, if facilities are not prepared (e.g., do not have backup generators) or if shopping, education, and/or employment centers do not have energy resources to operate with. The lack of electricity can render buildings uninhabitable if exterior temperatures are high, create conditions under which mold and mildew can flourish, and can spoil food. It can also bring cable and internet systems down, which can restrict the flow of information and emergency services to and from citizens and others.

Avoiding or mitigating the impacts of losing electricity is why certain critical institutions such as, emergency operations centers, nursing homes, and other facilities often install industrial generators. Other options may include battery banks, solar panels, and even windmills.

The probability based on the historical record of energy failures or disruptions affecting portions of Jefferson County and/or the City of Monticello is **occasional**. The probability and extent of electrical outages are strongly correlated to storm hazards, because storms often result in partial or larger outages.

Dam Failures

The hazard potential varies for individual earthen dams, and generally depends upon the volume of water supported by the dam along with the proximity to homes or other vulnerable structures downstream of the waterbody created by the dam. Because many dams are not subject to permitting and regular inspection, the data record is not sufficient to assess the hazard potential of many earthen dams. Nevertheless, dam safety in Florida is a shared responsibility among Florida's five water management districts, the Florida Department of Environmental Protection (DEP), the United States Army Corps of Engineers, local governments and private dam owners. These efforts are coordinated under the Florida Dam Safety Program.

In Northwest Florida, including Jefferson County, permits for the construction, alteration, repairs or abandonment of most dams are issued through the Environmental Resource Permitting Program, which is administered jointly between the District and DEP.

Owners of existing dams that needs to be repaired or who plan to build a new dam may need a permit to authorize the work. An individual Environmental Resource permit is required for the construction, alteration, repair, or abandonment of dams. There are additional safety and design criteria when the dam exceeds a height of 10 feet or impounds more than 50 acre-feet of water.

Overall, the probability based on the historical record of a dam failure event affecting Jefferson County and the City of Monticello is **unlikely**.

Vulnerability Summary

Telecommunications

The City of Monticello and Jefferson County are vulnerable to telecommunications failures associated with hurricanes and tropical storms. Other hazards may affect portions of these systems (e.g., a tornado or lightning takes out a cell phone or microwave transmitting tower), but these would be relatively sporadic events. However, as experienced by residents of Mexico Beach and Panama City and its nearby towns such as Lynn Haven, Hurricane Michael damaged or destroyed a number of cell phone and other communication towers, as well as power and telephone lines, and thus citizens could not obtain information, request services, or maintain contact with their friends, families, employers, and others. The telecommunications systems serving Jefferson County and the City of Monticello are as vulnerable to hurricanes and tropical storms as those in Mexico Beach and Panama City were before Hurricane Michael.

Cybersecurity

The degree of vulnerability of a computer system, including its software, data, hardware, and other elements, to cyberattacks is dependent upon existing safeguards, improvements, and business practices, among other variables. The City of Monticello and Jefferson County, based on recent events and like many other institutions, are vulnerable to cyberattacks under certain circumstances. Whether these attacks succeed or not depends on the defenses present, the sophistication of the attack, and the response of staff to phishing emails and other methods of attack.

Electricity, Water, and Sewer Failures

As previously described, mitigation measures employed by utility providers in Jefferson County have reduced the vulnerability of water, and wastewater. However, the City of Monticello and Jefferson County are vulnerable to electrical outages given the vulnerability of this area to thunderstorms and tropical cyclones, and because of the extensive tree canopy present in and around the urban area.

Dam Failures

The worst case scenario for Jefferson County would be a dam failure event that sent rushing floodwaters downstream of the dam resulting in considerable property damage and even possible loss of life for the residents that live downstream. The dam/levee failure events impacting Jefferson County, and the damages they have caused suggest that the future impacts could include:

- Drainage of the creeks or lakes;
- Flooding in the unincorporated and incorporated areas near the dams;
- Possible road closures due to the roads remain under water for a period of time;
- Significant culvert damage
- Possible power outages;

Risk Assessment

Energy Failures

Based on the above data and analysis, the risk for electric public infrastructure failures or disruptions is considered **medium**.

Dam Failures

Based on the historical data, the low number of dams deemed hazardous, the probability of a dam failure to residents, structures, infrastructure, and any critical facilities is considered to be a **low** risk.

2.19 Hazardous Materials

General Description and Location

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 prepared by the Apalachee Regional Planning Council Information and

released to the public on June 2014. 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 Study¹²²

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 traverses Jefferson County and the City of Monticello.

¹²²2016 Apalachee Local Emergency Planning Committee Hazardous Materials Commodity Flow Study.

Table 48: Hazardous Waste Summary.¹²⁴

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%
NPJA	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	

¹²⁴ https://fldep.dep.state.fl.us/chaz_sqg/filter.asp.

¹²⁵ The Resource Conservation and Recovery Act (RCRA) is the federal law that creates the framework for the proper management of hazardous and non-hazardous solid waste. The law describes the waste management program mandated by Congress that gave EPA authority to develop the RCRA program. The term RCRA is often used interchangeably to refer to the law, regulations and EPA policy and guidance.

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 Study¹²⁶

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 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.

Railroads¹²⁷

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,

¹²⁶2016 Apalachee Local Emergency Planning Committee Hazardous Materials Commodity Flow Study.

¹²⁷Ibid.

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 CAMEO^{fm}¹²⁹ 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 2009 Hazardous Materials Commodity Flow Study and the 2007 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

¹²⁸ The VZ is the geographical area that is at risk of exposure to concentrations of an airborne EHS at levels dangerous to life or health in the event of a chemical release.

¹²⁹ CAMEO^{fm} is a database application intended to track of information (such as chemical inventories and contact information for facilities in a community) to assist in emergency response and planning.

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 2009 Hazardous Materials Commodity Flow Study and 2007 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.

¹³⁰ Statewide Regional Evacuation Studies Program, Volume 1-2 Apalachee, Apalachee Regional Planning Council, 2012.

2.20 Transportation Incidents

General Description and Location

Transportation incidents can be classified into three general categories:

1. Roadways
2. Railways

The transportation of hazardous materials on roadways and rail have been addressed under the previous section of this document describing Hazardous materials. The focus in this section is on aviation incidents.

2.21 Terrorism

General Description and Location

Under the federal Homeland Security Act of 2002, terrorism is defined as activity that involves an act dangerous to human life or potentially destructive of critical infrastructure or key resources, and is a violation of the criminal laws of the United States or of any State or other subdivision of the United States in which it occurs, and is intended to intimidate or coerce the civilian population or influence a government or affect the conduct of a government by mass destruction, assassination, or kidnapping.¹³³

In analyzing the vulnerability of the community to domestic terrorism, it is important to separate criminal activities from terrorist activities. Generally speaking, terrorist activities involve the use or threat of terror to achieve an objective, often a political objective. Criminal activities, on the other hand, are illegal activities that are not primarily based on the use or threat of terror to achieve their objectives. A better representation of this distinction might be the use of indiscriminate use of explosives to highlight a cause, versus the use of explosives to open a safe as part of a burglary. While this distinction may be not be important to persons responding to these incidents (such as fire fighters at an explosion), it is important to consider when developing policies and programs dealing for with terrorist activities.

Estimated Impacts, Probability, and Extent

There are several local high-capacity community centers and government buildings that could be potential targets for terrorist attacks.

In recognition of the potential threat posed by terrorist attacks, the Jefferson County Division of Emergency Management developed a Terrorism Response Plan which was integrated into the Jefferson County CEMP. The Terrorism Response Plan is a consequence management plan for preparing for, responding to, and recovering from a terrorist-initiated incident, particularly one involving weapons of mass destruction.

The probability based on the historical record of a terrorism event affecting Jefferson County and/or the City of Monticello is **low**.

Vulnerability Summary

Jefferson County and the City of Monticello are considered vulnerable to a terrorist attack. Terrorist attacks are most likely to occur in the City of Monticello as opposed to the unincorporated areas of

Jefferson County. However, in the event of a biological or chemical attack on a target in the City of Monticello, residents in the unincorporated areas of Jefferson County have the potential to be affected.

Risk Assessment

Based on the historical data, residents of Jefferson County and the City of Monticello are considered to be at **low** risk for terrorist attacks.

2.22 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 critical 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.

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

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)

2.23 Risk Summary

Residents of Jefferson County are at varying levels of risk to a variety of natural and technological hazards. High-risk events involve hurricanes, tropical storms, and flooding. The county's inland location provides a buffer against the worst storm impacts, but it does not offer complete protection from potentially dangerous and damaging high winds and floods.

For more vulnerable structures, such as mobile homes, significant damages appear even under tropical storm conditions. High winds not only affect structures, but also trees, which are abundant in the Monticello, and Jefferson County. Trees can be hazardous to people, structures, vehicles, and other possessions and infrastructure, including electrical and telephone lines and internet and video cable.

Flooding is not limited to tropical storm or hurricanes. Flooding can occur from smaller weather events. Although these events tend to produce localized flooding, some areas are more vulnerable to others to this flooding due to historical, non-regulated development, or the steady increase of impervious surfaces in smaller watersheds that can "stage up" quickly. Various areas of the county are susceptible to flooding from the heavy rains that are typical during the summer, particularly the southeast areas of the county. Overall, flooding is the most common hazard facing Jefferson County and affects more residents on average than any other event. Hazards classified by risk level include:

- High risk hazards: hurricanes and tropical storms, and flooding.
- Medium risk hazards: severe storms (thunderstorms, tornados, lightning), drought, and energy failures.

Low risk hazards: storm surges, extreme temperatures, wildfires, sinkholes, invasive plants and animals, diseases, epidemics and pandemics, dam failure, transportation incidents, hazardous materials and terrorism.

Chapter 3 – 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

3.1 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 2020 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.

3.2 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 Department 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.

Existing Policies

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 the following:

Other Programs and Plans

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

A Continuity of Operation Plan (COOP) identifies essential functions and core responsibilities of the agency. It establishes backup plans and identifies alternate locations for agencies to function from 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 Normalcy after a catastrophic disaster. If government agencies are able to maintain a minimum level of service in an organized manner, a community can begin long-term recovery activities sooner. Jefferson County Emergency Management maintains COOPs for the following agencies:

Jefferson County 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:

5. Decrease the risk of future flood losses,
6. Reduce the costs and adverse consequences of flooding,
7. Reduce the demands and expectations for disaster assistance after floods, and
8. 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 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 a 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 3.2, 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.

Supporting Hazard Mitigation Programs and Resources

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.

At present, a great deal of formal and informal coordination occurs on a daily basis 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 Hermine in 2016, Hurricane Michael in 2018, COVID-19 and Hurricane Sally. 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 Hermine and Michael, 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.

Although these plans, policies, and programs will be continually refined and updated as necessary to accommodate the lessons learned from Hermine, Michael, COVID-19, and Hurricane Sally at this time, 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.

3.3 Hazard Mitigation Initiatives and Projects

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 2016 update, the list of hazard mitigation projects were reviewed by the Working Group following Hurricane Hermine to reflect changes in priorities, accomplishments, and outdated initiatives. These changes were largely based on experiences and lessons learned after Hurricane Hermine, which made landfall just east of St. Marks, Florida on September 2, 2016. The Working Group decided to keep the existing list of project.

Evaluation and Prioritization of Mitigation Projects

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 Table 50.

The LMS Working Group has maintained this list of project from the 2020 LMS. The prioritization of these projects has also been maintained from the 2016 LMS. The current Prioritized Mitigation list currently includes in Table 51 below.

The LMS Working Group met on June 25, 2021, and discussed the Project List of 2020-2021. The decided on taking of the cache of satellite phone due to the expenses of maintaining one would not be cost effective for the County due to Jefferson be facially constraint. The Working Group also took off of project 5 it had repair to the jail which is fixed now, so that had to be removed from the description.

Monticello-Jefferson County Project List 2018-2019

Priority	Description of Mitigation Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
								New	Completed	Deferred	If Deferred Why?	
1	Install larger culverts to prevent road washouts at vulnerable areas.	Flood, Hurricane/ Tropical Storms, Heavy Rain, Thunderstorms/ Wind	No	HMGP	All Jurisdictions in Jefferson County	Jefferson County Road Department	TBD				funding	Within a five-year timeframe
2	Purchase a backup generator for sewer lift stations.	All Hazards	No	HMGP	City of Monticello	City of Monticello	TBD					Steve Wingate to get cost for water Tower
3	Obtain a cache of satellite telephones.	All Hazards	No	HMGP	All Jurisdictions in Jefferson County	Jefferson County Emergency Management	\$5,000.00				funding	WWW.GROUNDCONTROL.COM
4	Retrofit the Jefferson County Jail	All Hazards	No	HMGP	All Jurisdictions in Jefferson County	Jefferson County Emergency Management	TBD					Within a five-year timeframe

Monticello-Jefferson County Project List 2018-2019

5	Conduct an assessment of the County & City owned structures (Jefferson County High School, the Annex, the Jefferson County Health Department and the Annex and the Fire Dept.) to determine if retrofitting them would be beneficial. Once completed ... prioritize and separate out to be stand alone projects.	All Hazards	No	HMGP	All Jurisdictions in Jefferson County	BOCC & City Commission	TBD	These will be considered ongoing projects for the county & city. Possible funding should be evaluated on a yearly basis.	Ongoing
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Monticello-Jefferson County Project list 2020-2021

Priority	Description of Mitigation Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion	Contact Information
								New	Completed	Deferred	If Deferred Why?		
1	Install larger culverts to prevent road washouts at vulnerable areas.	Flood, Hurricane/ Tropical Storms, Heavy Rain, Thunderstorms/ Wind	No	HMGP	All Jurisdictions in Jefferson County	Jefferson County Road Department Tom Kisamore	1,591,640.13				funding	Within a five-year timeframe	
2	Box culvert repair on Marvin Street south of E. Washington. Head Wall	All Hazards	No	HMGP	City of Monticello	City of Monticello Raymond Clark	125,500					6 Months	Joe Rosmini 850-491-2779 jrosmini@mymonticello.net
3	Landfill Road repair off of Tyson Road	All Hazards	No	HMGP	All Jurisdictions in Jefferson County	Solid Waste Department Beth Letchworth	150,000					6 months	Beth Letchworth 850-342-0184 blechworth@jeffersoncountyfl.gov
4	Hurricane Windows DOH	All Hazards	No	HMGP	DOH	DOH Margaret Levings	45,452.41					3 months	

Monticello-Jefferson County Project list 2020-2021

								providing services to a county of a little over 14,000 people. It has a standby generator and can also serve as an Alternate Care Site in the event of a mass casualty. Impact-resistant windows at DOH Jefferson will better protect the property and enhance the ability to provide continued services during harsh weather.		
5	Conduct an assessment of the County & City owned structures (Jefferson County High School, the Annex, the Jefferson County Health Department and the Annex and the Fire Dept.)ect.. to determine if retrofitting them would be beneficial. Once completed ... prioritize and separate out to be stand alone projects.	All Hazards	No	HMGP	All Jurisdictions in Jefferson County	BOCC and City Commission Shannon Metty	2,810,000.00	NEW-Road needs improving to allow access to the tree debris area. Supervisor of Elections new building the Health Department's Annex Library: ac replace \$18,000. New wiring \$12,000. Ag Center New fac:\$2,000,000.00 Computer and printer:\$11,000.00 Solid Waste renovation to existing office \$2000.00 Road dept renovation to exiting office \$20,000.00 Emergency Management painted \$10,000.00 Carpet :\$8000.00 EMS	ongoing	
6	Greater Fellowship Elizabeth Missionary Baptist	All Hazards	No	HMGP	Faith Based	Faith Based	100,000.00	Renovate building for flooding conditions(foundation) Historical Building	ongoing	

Monticello-Jefferson County Project list 2020-2021

7	Forestry	All Hazards	No	HMGP	Jurisdictions in Jefferson County	Forestry Todd Schroeder	100,000.00	Forestry uses grants to support their public outreach to the community, to help homeowner know about fuel around their houses, and preventative vegation or methods to help in case of a wild fire. Also Forestry does smokey the bear in schools to educate kids about wild fires.	ongoing
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Changes in Projects since 2016

The list projects in the 2015 LMS was modified in 2017 following Hurricane Hermine. For the 2017 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 Hermine, which made landfall just east of St. Marks, Florida on September 2, 2016.

All of the initiatives and projects in the 2017 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.

Hurricane Michael HMGP Projects

Appendixes E and F indicate proposed hazard mitigation projects intended for Hurricane Michael HMGP funds. These discrete new projects have been determined by the LMS Working Group to be consistent and have been included here as a separate project list for clarity.

Chapter 4 – Plan Maintenance

4.1 Monitoring, Maintenance 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 Table 52, 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 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 Emergency Management will be the lead agency for the required five-year update of the LMS. The Emergency Management Director will start preparations for this 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.

4.2 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 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 incorporate policies to increase wildfire mitigation efforts, a promoted through the LMS. Policies and objectives in the Land Use Element were amended to incorporate 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 any additional changes related to hazard identification and mitigation are identified by the LMS Working Group, 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.

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 a 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 3.2, 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. Due to the most recent flood plain study 11

homes were removed due to the flood plain. Single family homes have increased, and the only business development were Dollar General, Bee Supply, Simply Cremations, and Trulieve. Development has had minimal impact to Jefferson County's population vulnerability.

4.3 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 publicly noticed 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 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 2020 LMS will also be maintained on the Planning Department's webpage (<http://www.jeffersoncountyfl.gov/p/county-departments/planning>).

APPENDIX A:

LMS Adoption



BOARD OF COUNTY COMMISSIONERS JEFFERSON COUNTY, FLORIDA

THE KEYSTONE COUNTY-ESTABLISHED 1827
1484 SOUTH JEFFERSON STREET; MONTICELLO, FLORIDA 32344
PHONE: (850)-342-0287

Chris Tuten
District 1

Gene Hall
District 2-Vice Chair

J T Surles
District 3

Betsy Barfield
District 4

Stephen Walker
District 5 Chair

A RESOLUTION OF JEFFERSON COUNTY, FLORIDA; ADOPTING THE LOCAL MITIGATION STRATEGY

WHEREAS, Jefferson County is subject to natural hazards such as floods, storm surge, hurricanes, tropical storms, wildfires, drought, heat waves, winter storms, tornados, etc and these hazards affect the health and property of the citizens of the Jefferson County as well as its economic viability; and

WHEREAS, the Local Mitigation Strategy Committee worked to prepare the countywide, unified Local Mitigation Strategy to include a report detailing countywide hazards and vulnerabilities, a list of critical facilities, a list of policy recommendations and a prioritized list of hazard mitigation programs, projects and initiatives; and

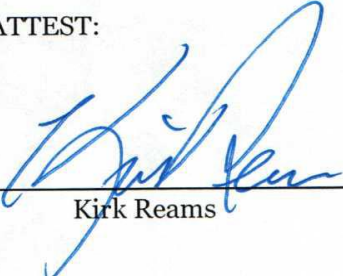
WHEREAS, hazard mitigation consists of actions such as structural enhancements, planning, code enforcement and responsible development, taken to permanently reduce or eliminate the long term risks to people and property from the effects of hazards; and


WHEREAS, in years past, the Local Mitigation Strategy has previously been adopted by both the County and the City of Monticello;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF JEFFERSON COUNTY, FLORIDA, hereby adopts the Local Mitigation Strategy; RESOLVED, FURTHER, that this resolution shall become effective immediately upon adoption.

PASSED AND DULY ADOPTED, in regular session by the Jefferson County Board of County Commissioners on this 20th day of May, 2021 .

ATTEST:


Kirk Reams


Stephen Walker, Chairman

Kirk Reams
Clerk of Courts

Parrish Barwick
County Coordinator

T. Buckingham Bird
County Attorney

U. S. Department of Homeland Security
Region IV
3005 Chamblee Tucker Road
Atlanta, GA 30341



FEMA

June 1, 2021

Mr. Miles Anderson
State Hazard Mitigation Officer
Division of Emergency
Management 2555 Shumard Oak
Boulevard Tallahassee, FL 32399-
2100

Reference: Local Mitigation Strategy: Jefferson County

Dear Mr. Anderson:

The Jefferson County, FL Local Mitigation Strategy (LMS) Plan Update is in compliance with the Federal hazard mitigation planning requirements resulting from the Disaster Mitigation Act of 2000 as contained in 44 CFR 201.6. The plan is approved for a period of five (5) years to June 1, 2026. This letter is to confirm that the following jurisdictions are approved under the Jefferson County, FL Local Mitigation Strategy Plan Update in accordance with the Program Administration by States (PAS) requirements, effective June 1, 2021, as follows:

This plan approval extends to the following participating jurisdictions that provided a copy of their resolutions adopting the Jefferson County, FL LMS plan:

- Jefferson County, Unincorporated
- City of Monticello

The approved participating jurisdictions are hereby eligible applicants through the State for the following mitigation grant programs administered by the Federal Emergency Management Agency (FEMA):

- Hazard Mitigation Grant Program (HMGP)
- Flood Mitigation Assistance (FMA)
- Building Resilient Infrastructure and Communities (BRIC)

National Flood Insurance Program (NFIP) participation is required for some programs.

We commend the participants in the Jefferson County, FL LMS plan for the development of a solid, workable plan that will guide hazard mitigation activities over the coming years. Please note that all requests for funding will be evaluated individually according to the specific eligibility and other requirements of the particular program under which the application is submitted. For example, a specific mitigation activity or project identified in the plan may not meet the eligibility requirements for FEMA funding, and even eligible mitigation activities are not automatically approved for FEMA funding under any of the aforementioned programs.

We strongly encourage each community to perform an annual review and assessment of the effectiveness of their hazard mitigation plan; however, a formal plan update is required at least every five (5) years. We also encourage each community to conduct a plan update process within one (1) year of being included in

a Presidential Disaster Declaration or of the adoption of major modifications to their local Comprehensive Land Use Plan or other plans that affect hazard mitigation or land use and development. When you prepare a comprehensive plan update, it must be resubmitted through the State as a “plan update” and is subject to a formal review and approval process by our office. If the plan is not updated prior to the required five (5) year update, please ensure that the draft update is submitted at least six (6) months prior to expiration of this plan approval.

The State and the participants in the Jefferson County, FL LMS plan should be commended for their close coordination and communications with our office in the review and subsequent approval of the plan. If you or Jefferson County have any questions or need any additional information, please do not hesitate to contact Gabriela Vigo, of the Hazard Mitigation Assistance Branch, at (229) 225-4546 or Darlene Booker, of my staff at, (770) 220-5404.

Sincerely,

Kristen M. Martinenza, P.E., CFM
Branch Chief
Risk Analysis
FEMA Region IV

A handwritten signature in blue ink that reads "Kristen M. Martinenza". The signature is written in a cursive style with a large, stylized 'K' and 'M'.



STATE OF FLORIDA

DIVISION OF EMERGENCY MANAGEMENT

Ron DeSantis
Governor

Kevin Guthrie
Director

June 3, 2021

Paula Carroll, Director
Jefferson County Emergency Management
169 Industrial Park
Monticello, Florida 32344

Re: Local Hazard Mitigation Plan Approval Notification

Dear Director Carroll,

Congratulations! The enclosed letter constitutes the Federal Emergency Management Agency's (FEMA) formal approval of the Jefferson County Local Mitigation Strategy (LMS) plan for the following participating jurisdictions:

Jefferson County, Unincorporated

City of Monticello

The plan has been approved for a period of five (5) years and will expire again on June 1, 2026.

The Mitigation Planning Unit would like to thank you for all of your hard work. It has been a pleasure working with you and we look forward to serving you in the future. If you have any questions regarding this matter, please contact your LMS Liaison Ian Ohlin at ian.ohlin@em.myflorida.com or 850-815-4316

Respectfully,

Miles E. Anderson

Digitally signed by Miles E. Anderson
DN: cn=Miles E. Anderson, o=DEM, ou=Mitigation,
email=Miles.anderson@em.myflorida.com, c=US
Date: 2021.06.04 11:11:48 -04'00'

Miles E. Anderson,
Bureau Chief, Mitigation
State Hazard Mitigation Officer

MEA/io

Attachments: 06/01/21 FEMA Approval Letter for Unincorporated Jefferson County and City of Monticello

Resolutions

Resolution #: 2021 - 06

A RESOLUTION OF THE BOARD OF CITY COUNCIL OF THE CITY OF
MONTICELLO, FLORIDA ADOPTING AN UPDATED
LOCAL MITIGATION STRATEGY

WHEREAS, the City of Monticello is subject to natural hazards such as floods, hurricanes, tropical storms, sinkholes, wildfires, drought, heat waves, winter storms and tornadoes and these hazards affect the health and property of the citizens of the City of Monticello as well as its economic viability; and

WHEREAS, Jefferson County, which includes the City of Monticello has updated the Local Mitigation Strategy and pre-identification and prioritization of Hazard Mitigation Grant Programs to become a part of the Statewide Hazard Mitigation Strategy; and

WHEREAS, the City of Monticello is a part of the Jefferson County Plan with their pre-identification and prioritization of Hazard Mitigation Grant Program projects to become a part of the county-wide Hazard Mitigation Strategy; and

WHEREAS, Jefferson County had the need for services in order to formulate the Countywide Mitigation Strategy, and did accept offers of the City of Monticello upon agreed upon terms and conditions; and

WHEREAS, the Local Mitigation Strategy Committee compiled a Local Mitigation Strategy document that meets the Federal/State Crosswalk;

NOW THEREFORE, BE IT RESOLVED, that the City Council of Monticello adopt the Local Mitigation Strategy document for the purpose of preparation and development of Local Mitigation Strategies and pre-identification and prioritization of Hazard Mitigation Grant Projects that will become a part of the Statewide Hazard Mitigation Strategy.

PASSED AND DULY ADOPTED, in special session with a quorum present and voting, by the City Council of Monticello, Florida this 27th day of May, 2021.

Attest:



Emily Anderson, City Clerk



Julie Conley, Mayor

RESOLUTION NO. J d (7 - D°S""/7/- 0\
A RESOLUTION OF JEFFERSON COUNTY, FLORIDA; ADOPTING THE LOCAL
MITIGATION STRATEGY

WHEREAS, Jefferson County is subject to natural hazards such as floods, storm surge, hurricanes, tropical storms, wildfires, drought, heat waves, winter storms, tornados, etc and these hazards affect the health and property of the citizens of the Jefferson County as well as its economic viability; and

WHEREAS, the Local Mitigation Strategy Committee worked to prepare the countywide, unified Local Mitigation Strategy to include a report detailing countywide hazards and vulnerabilities, a list of critical facilities, a list of policy recommendations and a prioritized list of hazard mitigation programs, projects and initiatives; and

WHEREAS, hazard mitigation consists of actions such as structural enhancements, planning, code enforcement and responsible development, taken to permanently reduce or eliminate the long term risks to people and property from the effects of hazards; and

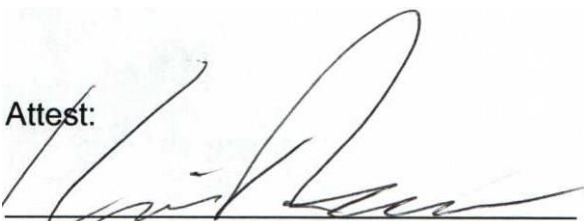
WHEREAS, in years past, the Local Mitigation Strategy has previously been adopted by both the County and the City of Monticello;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF JEFFERSON COUNTY, FLORIDA, hereby adopts the Local Mitigation Strategy; RESOLVED, FURTHER, that this resolution shall become effective immediately upon adoption.

PASSED AND DULY ADOPTED, in regular session by the Jefferson County Board of County Commissioners on this 17th day of May, 2016 .

JEFFERSON COUNTY BOARD OF COUNTY COMMISSIONERS

Attest:


Kirk Reams, Clerk


Stephen Wilker, Chairman

•

Resolution #: 2016-07

A RESOLUTION OF THE BOARD OF CITY COUNCIL OF
THE CITY OF MONTICELLO, FLORIDA ADOPTING AN
UPDATED
LOCAL MITIGATION STRATEGY

WHEREAS, the City of Monticello is subject to natural hazards such as floods, hurricanes, tropical storms, sinkholes, wildfires, drought, heat waves, winter storms and tornadoes and these hazards affect the health and property of the citizens of the City of Monticello as well as its economic viability; and

WHEREAS, Jefferson County, which includes the City of Monticello has updated the Local Mitigation Strategy and pre-identification and prioritization of Hazard Mitigation Grant Programs to become a part of the Statewide Hazard Mitigation Strategy; and

WHEREAS, the City of Monticello is a part of the Jefferson County Plan with their pre- identification and prioritization of Hazard Mitigation Grant Program projects to become a part of the county-wide Hazard Mitigation Strategy; and

WHEREAS, Jefferson County had the need for services in order to formulate the Countywide Mitigation Strategy, and did accept offers of the City of Monticello upon agreed upon terms and conditions; and

WHEREAS, the Local Mitigation Strategy Committee compiled a Local Mitigation Strategy document that meets the Federal/State Crosswalk;

NOW THEREFORE, BE IT RESOLVED, that the City Council of Monticello adopt the Local Mitigation Strategy document for the purpose of preparation and development of Local Mitigation Strategies and pre-identification and prioritization of Hazard Mitigation Grant Projects that will become a part of the Statewide Hazard Mitigation Strategy.

PASSED AND DULY ADOPTED, in regular session with a quorum present and voting, by the City Council of Monticello, Florida this 7th day of June 2016.

Emily Anderson
Emily Anderson, City Clerk

Tom Vogelgesang
Tom Vogelgesang, Mayor



APPENDIX B:

BYLAWS OF THE
MONTICELLO-
JEFFERSON COUNTY
LOCAL MITIGATION
WORKING GROUP

**BYLAWS OF THE
MONTICELLO-
JEFFERSON COUNTY
LOCAL MITIGATION
STRATEGY
WORKING GROUP**

1.1 LMS COMMITTEE PREAMBLE

The Monticello-Jefferson County Local Mitigation Strategy Working Group (LMS Committee) has been created in accordance with the Code of Federal Regulations, Title 44 CFR Part 201 and Section 252.46 Florida Statutes. In compliance with these regulations, the following sets forth the Bylaws, Policies and Procedures that shall serve to guide the proper functioning of the LMS Committee. The intent is to provide guidance for the operation of the LMS Committee to ensure the accomplishment of hazard mitigation planning tasks within a cooperative framework among key institutions on a continuing basis.

1.2 LMS COMMITTEE PURPOSE AND FUNCTION

- (1) Persons representing the various governmental entities, agencies, and public, private, and non-profit organizations noted herein shall be involved in the hazard mitigation planning process via the establishment of a LMS Committee.
- (2) The purpose of the LMS Committee shall be to ensure the technical sufficiency and completeness of the Local Mitigation Strategy (LMS plan), associated studies, applications for disaster assistance and related funding, and to ensure coordination and consistency with applicable state, local and regional hazard mitigation plans and programs.
- (3) The LMS Committee shall assist Jefferson County (County) and the City of Monticello (City) in carrying out local governments' hazard planning functions through recommendations on various issues.
- (4) To carry out its function as an advisory committee to the County and the City, the LMS Committee shall:
 - (a) Provide review of the Local Mitigation Strategy and its updates and to make recommendations as to its need, feasibility, technical accuracy and consistency with local, state and regional plans, programs, projects and comprehensive plans;
 - (b) Report to the County and City regarding current and future hazard mitigation needs, applicable funding sources, and other planning issues to assist local government with achieving coordination and consistency among local Comprehensive Plan, the Comprehensive Emergency Management Plan, and regional, state, and federal hazard mitigation initiatives;
 - (c) Review information that is input to or produced by the LMS Planning process;
 - (d) Recommend policies, projects, and studies (to be undertaken by applicable staff, departments or organizations) that further the intent or directly implement federal, state or local hazard mitigation goals or objectives;

- (e) Transmit to the County and City and share with other agencies or entities all significant findings and comments on hazard mitigation matters;
- (f) Conduct any other functions assigned to the LMS Committee by the County or the City Commissions.

1.3 COMMITTEE MEMBERSHIP

- (1) The Monticello-Jefferson County LMS Committee shall include representatives from the organizations named below concerned with the impacts of natural and man-made hazards on the health, safety and welfare of the community.
- (2) There is no limit on the number of members who may serve on the LMS Committee. The addition of any new voting organizations to the LMS Committee other than those specified in these bylaws must be approved by the County and the City Commissions.
- (3) The LMS Committee shall include the following voting organizations:
 - a. Jefferson County Emergency Management
 - b. Jefferson County Fire Rescue
 - c. City of Monticello Police Department
 - d. Jefferson County Sheriff's Office
 - e. Jefferson County Planning Department
 - f. Jefferson County Florida Department of Health
 - g. City of Monticello
 - h. Jefferson County Court House
 - i. Jefferson County Citizens

1.4 VOTING

- (1) Each Voting member of the LMS Committee may name via written notice to the chairman one (1) alternate who may vote only in the absence of that member on a one vote per member basis.

1.5 OFFICERS AND ELECTIONS

- (1) The officers of the LMS Committee will be the Chairperson and Vice Chairperson. The officers shall be voting members elected by the LMS Committee membership.
- (2) The LMS Committee Chairperson shall preside at all meetings. In the event of the Chairperson's absence or at his/her direction, the Vice Chairperson shall assume the powers of the Chairperson. In the event that neither the Chairperson nor Vice Chairperson can preside at the meeting, the committee members present shall elect one of its members to serve as acting Chairperson for the meeting.
- (3) Officers shall be elected in November of each year, or in the event there is not a meeting in November, the next scheduled meeting. Nominations for officers shall be made at the meeting. Election shall be a majority vote of the LMS Committee voting members present.

- (4) Newly elected officers shall assume their duties at the first meeting of the next calendar year. They shall hold office for one year, or until their successors are elected, and they shall be eligible for re-election.
- (5) In the event that either the Chairperson or Vice Chairperson office becomes vacant, a replacement shall be elected by the committee at the next scheduled LMS Committee meeting and assume duties immediately and hold the position for the remainder of the calendar year.

1.6 MEETINGS AND AGENDAS

- (1) The LMS Committee shall meet not less than annually. Regular LMS Committee meetings shall be held at dates, times, and places as approved by the LMS Committee. Regular meeting dates and times may be changed to accommodate holidays or for other valid reasons.
- (2) There shall be an official agenda for every LMS Committee meeting. The agenda shall be prepared by the designated LMS Coordinator.
- (3) Every attempt shall be made to send agenda packages to LMS Committee members seven (7) days prior to a regular LMS Committee meeting.
- (4) Any LMS Committee member or alternate who is eligible to vote at the LMS Committee meeting may place additional items on the LMS Committee agenda, with the approval of the majority of the voting members or alternates present.

1.7 OFFICIAL ACTIONS

- (1) All official actions of the LMS Committee shall be by motion and open vote.
- (2) All official and formal positions of the LMS Committee, regardless of whether adopted or rejected, shall be recorded in the minutes. Verbatim minutes are not required but minutes shall include an accurate summary of discussions and actions taken.

1.8 CONDUCT OF MEETING

- (1) All LMS Committee meetings shall be conducted under the requirements of the Florida “Government in the Sunshine” law (Chapter 286, F.S.), including applicable notice requirements, and be open to the public and press.
- (2) The public will have the right to speak, enter into discussion or actively participate in any way only with the permission of the chairperson.
- (3) In the absence of rules covered in this document, Roberts Rules of Order shall be followed at all LMS Committee meetings.
- (4) A quorum for LMS Committee meetings shall consist of a minimum of five voting members or alternates including at least one member representing a City-only department and one member representing a County-only department.
- (5) The LMS Committee must comply with Section 122.3143, F.S., “Voting Conflicts,” which requires that a member who has a conflict of interest on any particular matter to

declare the conflict of interest before discussion and a vote is taken and shall be excused from voting on that issue.

- (6) The LMS Committee shall operate in compliance with the Standards of Conduct set forth in Section 112.313, F.S.

1.9 ADMINISTRATION

- (1) The Chairperson may call an emergency (non-regular) meeting of the LMS Committee when a circumstance exists which requires immediate action by the LMS Committee. When such a meeting is called, each LMS Committee member shall be notified, stating the date, hour and place of the meeting and the purpose for which it is called, and no other business shall be transacted at that meeting. At least a twenty-four (24) hour advance notice of such emergency meeting shall be given to the public before the time the meeting is held.
- (2) If after reasonable diligence it becomes impossible to give notice of an emergency meeting to each LMS Committee member, the business of the meeting may be carried out if a quorum is present and appropriate public notice has been provided.
- (3) The LMS Coordinator shall be designated by the LMS Committee and shall serve as primary staff of the LMS Committee.
- (4) The LMS Coordinator is responsible for the minutes of all LMS Committee meetings and all notices and agendas for the LMS Committee meetings.
- (5) The LMS Committee shall operate in compliance with Florida's Public Records Law, Chapter 119, F.S.
- (6) The LMS Coordinator shall transmit LMS Committee recommendations to the County, City, or other entity as applicable.

1.10 CONDUCT OF MEETING

- (1) These bylaws may be amended by a two-thirds vote of those voting members or alternates present at a regularly scheduled LMS Committee meeting.
- (2) Amendments to the bylaws shall become effective immediately after the approval by both the County and the City.

1.11 EFFECTIVE DATE

- (1) These bylaws shall become effective immediately upon the approval by both the County and the City.

APPENDIX C:

LMS Working Group
Agendas, Meeting Minutes,
& PUBLIC MEETING
NOTICES



Mac McNeill, Sheriff
Jefferson County Sheriff's Office
Division of Emergency Management

169 Industrial Park
Monticello, Florida 32344
Phone: (850) 342-0211
Fax: (850) 342-0214



Jefferson County
Local Mitigation Strategy
Stakeholders Committee Meeting
June 25, 2021

Meeting Minutes:

- I. Welcome/Introductions:
- II. In Attendance: Shannon Metty, Paula Carroll, Kayla Kinsey, Todd Schroeder, Martha Creel, Shawn Duggar, Justin Halpin, Gene Hall, Kimberly Allbritton, Rev. Pedro McKelvin, Rev. Michael Feehan
- III. HMPG Michael- The application is still in review per the State. Gave A brief overview of the cost summary from hurricane Michael. Explained the process of the 3 tiers when money comes in after a disaster. Jefferson County applied for the HMPG grant for culverts all around the county that need to be replaced/upgraded.
- IV. HMPG Sally- Jefferson County is in tier 1 for Hurricane Sally. The deadline for the application is August 13, 2021. Jefferson County was obligated \$2,551.99, and 25 % Match would be \$850.66. The group looked over what/who is eligible and ineligible for the application.
- V. LMS plan was approved, and was shown the acceptance letters. Looked over the project worksheet. The Jail's roof needs to be taken off, it is being done now. Double check the AC for the Library, it might have been done. Taking off cache for satellite phones because it is expensive, and the long-term affect from purchasing them is not cost effective for the county. We already have 1 satellite phone at the EOC that is operable.
- VI. Open Discussion- for the Sally HMPG money the idea was brought up for that to purchase weather radios to give back to the community, it doesn't look like that would meet the eligible criteria. It would have to be looked further into. The next thought was for the sealant paint for the EOC, since the room in the EOC is leaking. Mrs. Shannon Metty said she would get a quote for the paint needed for the EOC to make sure the 2,551.99 would be enough to cover the cost.
- VII. Next Meeting will be October 2021
- VIII. Meeting Adjournment

The *Monticello News and Jefferson County Journal*, published every Wednesday and Friday in the City of Monticello, County of Jefferson and State of Florida

AFFIDAVIT OF PUBLICATION

Before me, the undersigned authority personally appeared, MICHAEL JOHNSON who on oath says that he is the REPORTER for the *Monticello News and Jefferson County Journal*, a weekly newspaper, published in Monticello, Jefferson County, Florida; that the attached copy of the advertisement being a:

Notice of Meeting: Jefferson County LMS/Stakeholder Working Group Meeting June 24, 2021

was published in said newspaper in the issue of: June 16, 2021

June 18, 2021

June 23, 2021

Affiant further says that the said *Monticello News* a newspaper published at Monticello, in Jefferson County, Florida, and that the said newspaper has heretofore been continuously published in said Jefferson County, Florida, each week and has been entered as second class mail matter at the post office in Monticello, in said Jefferson County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Signed by: 

Sworn to and subscribed before me this 23rd day of June A.D. 2021



Notary Public



DEIDRE L. MYERS
Commission # HH 109233
Expires March 28, 2025
Bonded thru Budget Notary Services

Notice of Meeting

NOTICE OF MEETING

The Jefferson County LMS/Stakeholder Working Group would like to invite the Community to 169 Industrial Park, Monticello FL 32344 June 24, 2021 at 3:30 pm. We value you input with future decisions of Jefferson County.

The purpose of this meeting is to review and go over LMS Plan 2021. Discuss any new projects. Discuss if want to do HMPG application for Hurricane Sally funds have been released. All invited please make sure you extend the invitation to the community and friends!

06/16, 06/18, 06/23



Mac McNeill, Sheriff
Jefferson County Sheriff's Office
Division of Emergency Management

169 Industrial Park
Monticello, Florida 32344
Phone: (850) 342-0211
Fax: (850) 342-0214



Jefferson County
Local Mitigation Strategy
Stakeholders Committee Meeting
February 11, 2021

Meeting Minutes:

Welcome/Introductions:

In Attendance: Shannon Metty, Paula Carroll, Kayla Kinsey, Raymond Clark Jr., Derrick Burrus, Todd Schroeder, Martha Creel, Kristy Anderson.

- I. Gave a brief over view of what LMS(Local Mitigation Strategy) is all about. Explain it is time for our 5 year plan review. And that we have already received our Florida Administrative 27P Compliance Letter.
- II. Review of Project list for LMS 2020-2021:
City of Monticello project needs to be removed they have already repaired culvert, Tyson Road with County still needs repair, and the City of Monticello also uses Tyson Road. DOH might had the money to do the Hurricane windows, we will need to remove the Project from list. Supervisor of Elections moved into the Health Department's Annex. Obtaining a cache for satellite phone, EOC is looking it to getting quotes. Mrs. Margaret is going to reach out to Greater Elizabeth about their project that is on the list. Forestry is just showing proof that they are doing public outreach and are a part of the LMS.
- III. Go Over LMS Requirements:

LMS for Jefferson County is due May 2021, EOC has updated and sent to Laura Waterman for review. Sent to the Board of County Commissioners for Approval and Sent to the City Council for Approval.
- IV. Open Discussion:

Next Meeting will be June 2021

2015-2020

Appendix I - Jefferson County LMS Meetings (Advertisement Agenda, Minutes, Sign-In Sheets)

(A) Meeting Date: September 2, 2015

A1 - Advertisement

MONTICELLO News

Aug. 28, 2015

Miscellaneous Notices Legal Notice

Local Mitigation Strategy (LMS) Planning Committee to meet on Wednesday, September 2, 2015.

The Jefferson County LMS Planning Committee/Work Group will meet at 11 AM on Wednesday, September 2, 2015 at the Jefferson County Emergency Management Office. The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long-term risk for protecting people and property from the effects of natural disasters and to build a safer and stronger community. Please contact the Jefferson County Emergency Management at 850- 342- 0211 for more information.

Monticello News

Aug. 26, 2015

Miscellaneous Notices Legal Notice

Local Mitigation Strategy (LMS) Planning Committee to meet on Wednesday, September 2, 2015.

The Jefferson County LMS Planning Committee/ Work Group will meet at 11 AM on Wednesday, September 2, 2015 at the Jefferson County Emergency Management Office. The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long-term risk for protecting people and property from the effects of natural disasters and to build a safer and stronger community. Please contact the Jefferson County Emergency Management at 850- 342- 0211 for more information.

**Jefferson County
Local Mitigation Strategy (LMS) Meeting September 2, 2015**

Welcome

II LMS Committee Members & Guests Introduction Review committee list

III LMS Mitigation Project or Action List

What is the status update or progress of the LMS mitigation projects? New Projects?

IV Review the LMS Goals & Objectives V Public Participation

VI Adjourn

A3 - Meeting Minutes

Jefferson County

Local Mitigation strategy (LMS) Meeting Minutes September 2, 2015

Welcome - Carol Ellerbe, *Vice* Chair welcomed the members and guests as Margaret Levings, Chair, had a previous obligation and could not attend.

LMS Committee Members & Guests Introduction - Carol Ellerbe asked that all in attendance introduce themselves and sign the attendance roster.

III

LMS Mitigation Project or Action List - the committee members went through each of the projects and updates were captured. Emails were sent out to members not in attendance to capture updates on projects that those in attendance could not comment on.

LMS Goals and Objectives - The goals and objectives were reviewed and analyzed. Details were updated to match the information on the Jefferson County COMP 2025 and the new data will be inserted in the next LMS Plan update.

V Public Participation - The importance of including and educating the public on mitigation was discussed. Used below are the activities being conducted by Jefferson County:

Jefferson County Emergency Management advertises all LMS meetings in the Local paper.

First Responders provide materials through an outreach booth at the Jefferson County Watermelon Festival held every June.

Emergency Management participates and disseminates disaster safety information at the Open Household at the Beau Turner facility every spring for the youth of Jefferson County.

Jefferson County Fire Rescue participates in 'Show & Tell' quarterly for all schools within the county.

Jefferson County Fire Rescue utilizes the month of October... Fire Prevention Month to disseminate fire safety information to the citizens

Florida Forest Service brings Smokey Bear to the schools to educate the kids in wildfire safety tips and techniques

Department of Health conducts an outreach program in the low income housing areas and disseminates information to the residents.

Jefferson County Emergency Management conducts disaster safety presentations at the Rotary, Chamber and various churches.

Jefferson County disseminates disaster safety information in the "Welcome Packs" That are provided to new residents from the Chamber of Commerce.

VI Adjourn - There being no further business. The meeting was adjourned.

(B) Meeting Date: October 16, 2014

B1 - Advertisement

Jefferson County

To: David Hobbs, Ray Lacy, Kevin Huffmaster, Fred Mosley, Emily Anderson, Steve Wingate, Beth Letchworth, Mark Matthews, Jim Iten, Wallace Bullock, Bill Tellesten, Parrish Barwick, Nick Flynt, Kirk Reams, Tyler McNeil, Angela Gray, Lois Hunter, Betsy Bartsfield, Robert Pickels, Lester Lawrence, Michael Long, Houston Brock, Nic Cooksey, Jacar McCloud, Tod Schroeder, Tammy Brumbley

Cc: Traci Buzbee, Gail Leek

Local Mitigation (LMS) Planning Committee Meeting

Good Morning,

Please mark your calendar to attend our annual Local Mitigation Strategy (LMS) Planning Committee Meeting set for 10:00 am Thursday, October 16th, 2014. This meeting will be held at the Emergency Operations Center (EOC)

The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which service as a plan to reduce the community's long term risk for protecting people and property from the effects of natural disasters and to build a safer and stronger community. Please contact the Jefferson County Emergency Management at: (850)342-0211 for more information.

Jefferson County Sheriff's Office

Division of Emergency Management

Carol Ellerbe, Director

169 Industrial Park

Monticello, FL 32344

(850)342-0211 Office

B2-Agenda

**Jefferson County
Local Mitigation Strategy (LMS) Meeting October 16, 2014**

Welcome

II LMS Committee Members & Guests Introduction Review committee list

III LMS Mitigation Project or Action List

What is the status update or progress of the LMS mitigation projects New Projects?

IV Review the LMS Goals & Objectives V Public Participation

VI Adjourn

83 - Meeting Minutes

Jefferson County
Local Mitigation Strategy (LMS)
Meeting Minutes October 16, 2014

Welcome - Carol Ellerbe welcomed the members.

An election was held for the LMS Chair & *vice* Chair.

Margaret Levings was nominated for LMS Chair and Carol Ellerbe was nominated for LMS vice Chair There were no objections.

LMS Committee Members & Guests Introduction - Carol Ellerbe asked that all members introduce themselves. (Official sign n sheet is provided as an attachment to these minutes)

Ill **LMS Mitigation** Project or Action List - the committee members went through each of the projects listed, updates were captured for each project. (The updated project this is provided as an attachment to these minutes).

VI. Public Participation - The importance of including and educating the public on mitigation was discussed. Listed **below** are the activities being conducted by Jefferson County?

Jefferson County Emergency Management advertises all LMS meetings in the local paper.

First Responders provide materials through an outreach booth at the Jefferson County Watermelon Festival held every June.

Emergency Management participates and disseminates disaster safety information at the Open House held at the Beau Tuner facility every spring for the youth of Jefferson County.

Jefferson County Fire Rescue participates in "Show & Tell" quarterly for all schools within the county.

Jefferson County Fire ReSQ.18 utilizes the month of October ... Fire Prevention Month to disseminate fire safety information to the citizens

Florida Forest Service brings Smokey Bear to the schools to educate the kids in wildfire safety tips and techniques
Department of Health conducts an outreach program in the low income housing areas and disseminates information to the residents.

Jefferson County Emergency Management conducts disaster safety presentations at the Rotary, Chamber and various churches.

Jefferson County disseminates disaster safety information in the 'Welcome Pack's that are provided to new residents from the Chamber of Commerce.

V Adjourn - There being no further business, the meeting was adjourn

(C) Meeting Date: November 25, 2013 C1 –Advertisement

Jefferson County

To: Emily Anderson, Parrish Barwick, David Harvary, Steve Wingate, David Hobbs, Wallace Bullock, Bill Bullock, Bill Tellesten, Angela Gray, Kevin Huffmaster, Beth Letchworth, Kirk Reams, Mark Matthews, Debra Lingle, Al Cooksey, Fred Mosely, Robert Pickles, Katie Sherk

Cc: Robert Hall, Traci Buzbee, Gail Leek

LMS Meeting Held 11-25-2013 10 AM at EOC

As part of the Jefferson County LMS Planning Committee Work Group it is time for us to meet. The meeting is scheduled for 10 AM on Monday, November 25, 2013 at the Jefferson County Emergency Management Office. I need you to attend and provide input. The committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long term risk for protecting people and property from the effects of natural disasters and to build a safer and stronger community

Please contact the Jefferson County Emergency Management Department at: (850)342-0211 for more information

Jefferson County Sheriff's Office

Division of Emergency Management

Carol Ellerbe, Director

169 Industrial Park

Monticello, FL 32344

(850)342-0211 Office

(850)342-0214 Fax

C2-Agenda

**Jefferson County
Local Mitigation Strategy (LMS) Meeting November 25, 2013**

Welcome and Introductions

II LMS Goals and Objectives

Do they meet the needs for the County?

III LMS Mitigation Projector Action List

What is the status of the mitigation projects?

IV LMS Goals and Objectives

Do they meet the needs for the County?

V Yearly planning for the LMS

What steps are occurring each year to meet the requirements for the next LMS plan?

VI Adjourn

C3 Sign-In Sheet

JEFFERSON COUNTY
LMS
November 25, 201

..
Z

E
Carol Ellebe @ emba.org mail.com
Kittelle@emba.org matli.com
huffmasterk@flca.org .net
swingate@ymountainville.net

Ellebe
Robert Hays JCSO/DEM
Kevin Huffmaster JCSO/DEM
Steve Wingate JCSO
City of Mountainville

C4 - Meeting Minutes

**Jefferson County
Local Mitigation Strategy Working Committee Group Meeting Minutes**

November 25, 2013

Members Present:

Carol Ellerbe, JCEM Robert Hall, JCEM Kevin Huffmaster, JCSO
Steve Wingate, City of Monticello

- I. **Welcome and Introductions** - carol Ellerbe opened the meeting and thanked everyone for coming and participating. Brief introductions were conducted.

II. **Overview & Purpose of the LMS Meeting** - Currently, Jefferson County is in Stage 4 of the planning process, the Monitoring Phase, determining- where are we at with the projects".

III. **LMS Projects** - The working group reviewed the current LMS project list and discussed and analyzed every project. The appropriate Committee/Workgroup member provided updates and new projects were added. In addition, the ranking of some projects was adjusted as priorities have changed.

VI. **Adjourn** - There being no further business, the meeting was adjourned.

(D) Meeting Date: March 11, 2013 (for 2012) D1 - Advertisement

Jefferson County Sheriff's Office
Division of Emergency Management
169 Industrial Park
Monticello, FL 32344
(850) 342-0211



David C Hobbs, Sheriff *Jefferson County*

February 27, 2013

RE: Ad for LMS Meeting announcement

Legal Notice:

Local **Mitigation** Strategy (LMS) Planning Committee to Meet March 11, 2013

The Jefferson County LMS Planning Committee Work Group will meet at 2:00PM Monday, March 11 2013 at the Jefferson County Emergency Management Office. The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long-term **people and** their property from the effects of natural disasters. A meeting agenda will be available prior to the meeting. Please contact the Jefferson County Emergency Management Department at (850) 342-0211 for more information.

Sincerely,
Carol Ellerbe

Carol Ellerbe

Jefferson County

To: David Hobbs, Bill Bullock, Fred Mosely, Jim Iten, Mark Matthews, Beth Letchworth, Steve Wingate, David Harvary, Angela Gray, Lois Hunter, Wallace Bullock, Bill Tellefsen, Parrish Barwick, Nick Flynt, Kirk Reams, Margaret Livings, Emily Anderson

Cc: Traci Buzbee, Gail Leek

Local Mitigation Strategy (LMS) Planning Committee Group

Please mark on your calendars for the Local Mitigation Strategy (LMS) Planning Committee meeting March 11, 2013 at 2:00 PM

The Jefferson County LMS Planning Committee/Work Group will meet at the Jefferson County Emergency Management Office. The committee guide the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long term risk to people and their property for the effects of natural disaster. Meeting agenda will be available prior to the meeting Please contact the Jefferson County Emergency Management Department at (850)342-0211 for more information.

Jefferson County Sheriff's Office

Division of Emergency Management

Carol Ellerbe, Director

169 Industrial Park

Monticello, FL 32344

(850)342-0211 Office

(850)342-0214 Fax

D2-Agenda

**Jefferson County
Local Mitigation Strategy (LMS) Meeting March 11, 2013**

Welcome and Introductions II LMS Goals and Objectives
Do they meet the needs for the County?

III LMS Mitigation Project or Action List
What is the status of the mitigation projects?

IV Public Involvement in the LMS
What is the County doing to involve their citizens?

V Yearly planning for the LMS
What steps are occurring each year to meet the requirements for the next LMS plan?

VI Adjourn

(E) Meeting Date: June 16, 2011

E1 - Advertisement

Jefferson County

To: David Hobbs, Bill Bullock, Fred Mosely, Jim Iten, Mark Matthews, Beth Letchworth, Steve Wingate, David Harvary, Angela Gray, Lois Hunter, Wallace Bullock, Bill Tellefsen, Parrish Barwick, Nick Flynt, Kirk Reams, Margaret Livings, Emily Anderson

Cc: Traci Buzbee, Gail Leek

Local Mitigation Strategy (LMS) Planning Committee Group

Please mark on your calendars for the Local Mitigation Strategy (LMS) Planning Committee meeting June 16, 2011 at 2:30 PM

The Jefferson County LMS Planning Committee/Work Group will meet at the Jefferson County Emergency Management Office. The committee guide the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long term risk to people and their property for the effects of natural disaster. Meeting agenda will be available prior to the meeting Please contact the Jefferson County Emergency Management Department at (850)342-0211 for more information.

Jefferson County Sheriff's Office

Division of Emergency Management

Carol Ellerbe, Director

169 Industrial Park

Monticello, FL 32344

(850)342-0211 Office

(850)342-0214 Fax

E2-Agenda

*Jefferson County Sheriff's Office Division of Emergency Management
169 Industrial Park
Monticello, FL 32344
(850)342-0211
We're caring and preparing*



David C. Hobbs, Sheriff

Carol Ellerbe, Director

Jefferson County
Local Mitigation Strategy Meeting June 16, 2011

Welcome/Introductions

- II Discussion on the recent adoption of the LMS Plan
- III Public involvement

IV LMS Goals and objectives
Do *they* meet the needs or the County?

V Project List
Status or the projects
Timeframe for completing the project\$ Completed projects

VI Adjourn

Next Meeting; October 5, 2011 @ 2p

E3 Sign-In Sheet

Steve W. Jorgensen
John McHenry
For Scott E. Haber
JAN 20 2007
Linda Kowalik
Hannel Anths
Carol Elterbe
Beth Lethworth
Mike Matthews
Angela Gray

City of Monticello
SERIBSON CENTER
JAN 20 2007
JAN 20 2007
TJ AB
MICH D
TASO DEM
Solid Waste
Fire Dept
Pran Agar

seribsoncenter.com.net
Linda Kowalik
Hannel Anths
Carol Elterbe
Beth Lethworth
Mike Matthews
Angela Gray

E4-Minutes

Jefferson County Local Mitigation Strategy (LMS) Meeting June 16, 2011



- I Welcome and Introductions
- II Discussion on the recent adoption of the LMS Plan III Public Involvement

- N LMS Goals and Objectives
Do they meet needs of the County?
- V LMS Project List
Status of the projects
Timeframe for completing the projects Completed projects
- V Adjourn

LMS Committee Members - Attendees

David Hobbs, Jefferson County Sheriff's Office
Carol Ellerbe, Jefferson County Emergency Management Steve Wingate, City of Monticello
John McHugh, - Jefferson County Roy Schleicher, Jefferson County Tim Se
Linda Benedict Howell Batts
Beth Letchworth, Jefferson County Solid Waste Mark Matthews, Jefferson County Fire Rescue
Angela Gray, Jefferson County Property Appraisers Office Traci Buzbee the Management Experts, LLC

David Hobbs opened the meeting and Introductions were given. The first order of business was to discuss the recent adoption of the Jefferson County LMS Plan. The LMS meeting was advertised on the Jefferson County website to the general public. Details were discussed on how to get the public (i.e. The Jefferson County citizens) involved in the LMS Plan.

The LMS Goals were reviewed and reevaluated to determine they are still standard and effective. They were determined to be effective at this time.

The Jefferson County LMS project list was discussed in detail. Each project in the LMS project or action list spreadsheet was reviewed and updated on the status. If the project was completed, or the current status updated. Updated information is noted on the mitigation projects in the LMS project spreadsheet.

The meeting concluded and was adjourned.

*Jefferson County Sheriff's
Office Division of
Emergency Management
169 Industrial Park
Monticello, FL 3234 4
(850) 342-0211
"We're Caring & Preparing
David C. Hobbs, Sheriff*

January 25, 2013

Florida Division of
Emergency Management
Attn: Mr. Miles Anderson
Bureau Chief,
Mitigation/State Hazard
Mitigation Office
2555 Shumard Oak
Boulevard
Tallahassee, FL 32399-2100

Re: 27P-22 Jefferson County
Annual Local Mitigation
Strategy (LMS) Update



Carol Ellerbe, Director

As required by the Florida Administrative Code 27P-22.004 (formerly 9G-22.004), we are submitting the following details for the Jefferson County LMS.

A) The current chairman for the LMS Committee/Work Group is: Chairman:
Robert Harrell, Jefferson County Emergency Management
169 Industrial Park Monticello, FL 32344 r.harrellem3@embarqma.icl.com
850-342-0211

Co-Chairman:
Carol Ellerbe, Jefferson County Emergency Management Director 169 Industrial Park Monticello, FL 32344
carolellerbe@embarqmail.com
850-342-0211

B) Current LMS Committee/Work Group Member's

David Hobbs, Jefferson County Sheriff's Office Steve Wingate, City of Monticello
John McHugh, Jefferson County Roy Schleicher Jefferson County

Tim Self
Linda Benedict Howell Batts
Beth Letchworth, Jefferson County Solid Waste Mark Matthews, Jefferson County Fire Rescue
Angela Gray, Jefferson County Property Appraisers Office Traci Buzbee, The Management Experts, LLC

B) The following areas have not changed in Jefferson County:

1. Local hazard assessment.
2. Repetitive loss property list.
3. Critical facilities list.
4. The Jefferson County's Flood Insurance Rate Maps and the Flood Insurance Study are still in the preliminary stage of review by FEMA, therefore no revisions have been updated since the FEMA formal approval on May 31, 2011.

E) LMS Mitigation Project or Action List

On Monday, March 11, 2013, the Jefferson County LMS committee/working group task members will hold a meeting at the EOC at 2:00 pm to review and update the LMS mitigation project list. The mitigation projects will be discussed and details will be updated as to the status of the projects (i.e. ongoing, deferred, in progress, deleted, complete, or new.) The updated mitigation project list then will be forwarded to the State.

Let me know if you have any questions. Sincerely,

Carol Ellerbe

Jefferson County Sheriff s Office, Division of Emergency Management

Jefferson County
Local Mitigation Strategy (LMS) Meeting November 25, 2013

Welcome and Introductions

II LMS Committee/Workgroup Members

111 LMS Mitigation Project or Action List
What is the status of the mitigation projects?

IV LMS Goals and Objectives
Do they meet the needs for the County?

V Yearly planning for the LMS
What steps are occurring each year to meet the requirements for the next LMS plan?

VI Adjourn

**Jefferson County
Local Mitigation Strategy Working Group Meeting Minutes**

November 25, 2013

Members Present:

Carol Ellerbe, JCEM Robert Hall, JCEM

Kevin Huffmaster, JCSO

Steve Wingate, City of Monticello

- I. **Welcome and Introductions** - Carol Ellerbe opened the meeting and thanked everyone for coming and participating. Brief introductions were conducted.
- II. **Overview & Purpose of the LMS Meeting** - Currently, Jefferson County is in Stage 4 of the planning process, the Monitoring Phase, determining "where are we at with the projects".
- III. **LMS Projects** - The working group then took the current project list and discussed every project. Updates were provided by the appropriate member and new projects were added. In addition, the ranking of some projects was adjusted as priorities have changed.
- IV. **Adjourn** - There being no further business, the meeting was adjourned.

Jefferson County Sheriff's Office
\ Division of Emergency Management

169 Industrial Park
Monticello, FL 32344
(850) 342-0211

"We're  & Preparing"

David C Hobbs, Sheriff Carol Ellerbe, Director



February 27, 2013

RE: Ad for LMS Meeting announcement Legal Notice:
Local Mitigation Strategy (LMS) Planning Committee to Meet March 11, 2013

The Jefferson County LMS Planning Committee/Work Group will meet at 2:00 PM on Monday, March 11, 2013 at the Jefferson County Emergency Management Office. The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long-term risk to people and their property from the effects of natural disasters. A meeting agenda will be available prior to the meeting. Please contact the Jefferson County Emergency Management Department at: (850) 342-0211 for more information.

Carol Ellerbe, Director
Jefferson County Sheriff's Office, Division of Emergency Management

**Jefferson County
Local Mitigation Strategy (LMS) Meeting October 16, 2014**

Welcome

II LMS Committee Members & Guests Introduction III LMS Mitigation Project or Action List
What is the status update or progress of the LMS mitigation projects?

IV Public Participation V Adjourn

**Jefferson County Local Mitigation Strategy (LMS)
Meeting Sign-In Sheet-October 16, 2014**

Name	Organization/Company	E-Mail	Phone
[Redacted]	JEF. CO. S/O EM	Rhailem2@Embargmail.com	850-342-0211
[Redacted]	Jef. Co. S/O EM	Carolelberbe@embargmail.com	850-342-0211
Margaret Levinger	FDOT Jefferson/Madison	Margaret.Levings@flhealth.gov	850-342-0170
MARK MATTHEWS	Jefferson County Fire Rescue	mmatthews@jeffersoncountyfl.gov	850-342-0178
Bill Tellefsen	JC Planning Dept.	btellefsen@jeffersoncountyfl.gov	850-342-0223
Kevin Huffmaster	Jefferson Co. S. O.	huffmasterk@kjv.net	850-997-2533
Parrish Barwick	Jefferson Co.	pbarwick@jeffersoncountyfl.gov	342 0287

**Jefferson County
Local Mitigation Strategy (LMS) Meeting November 25, 2013**

Welcome and Introductions

II LMS Committee/Workgroup Members III LMS Mitigation Project or Action List
What is the status of the mitigation projects?

IV LMS Goals and Objectives
Do they meet the needs for the County?

V Yearly planning for the LMS
What steps are occurring each year to meet the requirements for the next LMS plan?

VI Adjourn

**Jefferson County
Local Mitigation Strategy Working Group Meeting Minutes**

November 25, 2013

Members Present:

Carol Ellerbe, JCEM Robert Hall, JCEM Kevin Huffmaster, JCSO
Steve Wingate, City of Monticello

- I. **Welcome and Introductions** - Carol Ellerbe opened the meeting and thanked everyone for coming and participating. Brief introductions were conducted.
- II. **Overview & Purpose of the LMS Meeting** - Currently, Jefferson County is in Stage 4 of the planning process, the Monitoring Phase, determining "where are we at with the projects".
- III. **LMS Projects** - The working group then took the current project list and discussed every project. Updates were provided by the appropriate member and new projects were added. In addition, the ranking of some projects was adjusted as priorities have changed.
- IV. **Adjourn** - There being no further business, the meeting was adjourned.

Committee/Workgroup

Member	Organization	Email	Phone	Address
Carol Ellerbe	Jefferson County Sheriff's Office/Department Emergency Management	carolellerbe@embarqmail.com	(850) 342-0211	169 Industrial Park, Monticello, FL 32344
Robert Hall	Jefferson County Sheriff's Office/Department Emergency Management	rhallem2	(850) 342-0211 (850) 342-0153 (850) 342-0287	169 Industrial Park, Monticello, FL 32344 245 S Mulberry St, Monticello, FL 32344
Emily Anderson		@embarqmail.com	(850) 997-2036	1484 S Jefferson St, Monticello, FL 32344
Parrish Barwick	Jefferson County City of Monticello	eparrish@mymonticello.net		
David Harvey	Jefferson County Road Department	dharve@jeffersoncount.gov pbarwick@jeffersoncountyfl.gov		
Steve Wingate			(850) 342-0153	245 S Mulberry St, Monticello, FL 32344
David Hobbs	Jefferson County Sheriffs Office City of Monticello	hobbsd@flc.n.net swingate@mymonticello.net	(850) 997-2523	171 Industrial Park, Monticello, FL 32344
Wallace Bullock	Jefferson County Building Department	wbullock@jeffersoncount.fl.gov	(850) 342-0223	445 W Palmer Mill Road, Monticello, FL 32344
Bill Bullock	Jefferson County Sheriffs Office	bullock@flc.n.net	(850) 997-2523	171 Industrial Park, Monticello, FL 32344
Angela Gray	Jefferson County Property Appraiser	angela.gray@jeffersonpa.net	(850) 997-3356	480 W Walnut Street, Monticello, FL 32345 445 W Palmer Mill Road, Monticello, FL 32344
Bill Tellefsen	Jefferson County Planning	btellefsen@jeffersoncountfl.gov	(850) 342-0223	

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Committee/Workgroup Member	Organization	Email	Phone	Address
Beth Letchworth	Jefferson County Solid Waste	bletchworth@jeffersoncountvfl.aov	(850) 342-0184	1591 S Waukeenah St, Monticello, FL 32344
Al Cooksey	Jefferson County Schools	al.cooksev@ieffersonschooldistrict.or	(950) 342-0100	575 S Water Street, Monticello, FL 32344
Kirk Reams	Jefferson County Clerk's Office	kreams@ieffersonclerk.com	(850) 342-0218	1 Courthouse Circle, Monticello, FL 32344
Mark Matthews	Jefferson County Fire/Rescue	mmatthews@ieffersoncountvfl.aov	(850) 342-0182	1456 S Jefferson St, Monticello, FL 32344
Fred Mosley	Monticello Police Department	fred.moslev@mvmonticellocom	(850) 342-0150	195 S Mulberry St, Monticello, FL 32344
Robert Pickels	Duke Energy	Robert.Pickels@duke-enerav.com		
Katie Sherk	Red Cross	Katie.Sherk@tallvredcross.org		
Traci Buzbee	The Management Experts	traci@tmeconsultants.com	(850) 528-0785	2514 Manassas Way, Tallahassee, FL 32312
Sim Stringer	The Management Experts	sim@tme-consultants.com	(850) 528-0785	2514 Manassas Way, Tallahassee, FL 32312
Gail Leek	The Management Experts	aleek@reakl now.com	(303) 513-7153	2514 Manassas Way, Tallahassee, FL 32312

Jefferson County Local Mitigation Strate Project List - November 2013

Completed projects will be highlighted in this color							
Built anew wastewater treatment plant	All hazards	Yes	Rural Dept. grant funds/ and loan	City of Monticello	Solid Waste Department	\$8,300,000	The City of Monticello built a new wastewater treatment plant located on Scott Drive. A \$6.2 million loan was obtained and 25% (approximately \$2.1 million) was obtained through the rural department grant funds. The estimated completion date will be by the end of this fiscal year. 2013.
Set-up an emergency notification system. All Hazards throughout the		Yes	NIA	County	Jefferson County Emergency Management	TBD	The county began using the Rixie system in May 2012. There is a link on the website for outreach in the communication system.

1	Purchase a backup generator All hazards for sewer lift stations.	Yes	HMGP	City of Monticello City of Monticello cost	Update - The City of Monticello currently has one back up generator on their mobile unit. In addition , in the 1st quarter of 2013, the city received another generator.
	Retrofit the Jefferson County All Hazards jail.	No	HMGP	County Jefferson County Emergency Management TBD	This project was submitted in the HMGP application, February 2013, however, it didn't reach the year final review for the project timeframe. Therefore, it is considered an on-going project.

Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	

2	Install anew console communication All hazards system in Dispatch.	no	TBD	County	Jefferson County Emergency Management	\$90,000	X				The current console in the dispatch center is nearing its' lifespan per Mootrola.	Within a five year timeframe
3	Install 3rd console communication system in dispatch All hazards after the main Console is replaced. The sheriff's department is looking into study and survey All hazards to improve the communications and towers within	no	TBD	County	Jefferson County Emergency Management	\$50,000	X				fundin g	Within a five year timeframe
4	Build anew Fire/Rescue All hazards Building on Martin Road.	no	TBD	County	Jefferson County Sheriffs Department	TBD	X				fundin g	Within a five year timeframe
					Jefferson County							

5		no	TBD	County	Fire/Rescue Department	TBD	<input checked="" type="checkbox"/>	submitted and Approved		year timeframe
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2

Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	

6	Build a new building for the solid waste Solid Waste Department	All hazards	no	Jefferson County	TBD	County Solid Waste	A new office building	TBD	built	Within a five year timeframe
7	The fire department is looking into improving their communications system.	Jefferson County All hazards	no	TBD	County Fire/Rescue	TBD			fundin g	Within a five year timeframe
8	Update - As of November 2013, new become effective as of February 5, 2014. Work with FEMA to produce anew Flood insurance project Study (FIS). preliminary maps were projected to be Completed on 10/31/11. No actual Confirmation has been noted. The letter	Flood no	N/A	Update (2nd Flood Insurance Study Maps will 2012) • The per theNFWMD. In January 2012, per preliminary Jefferson County FEMA, the flood map project statusFIS was dated May 18, 2012.	County Emergency	NIA	details are as follows: The FIS			quarter of

Description of Project	Hazard's Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	

9	Retrofit County owned structures to withstand wind damage for the Jefferson County Tornadoes, High School, the Thunderstorms Annex, and the Jefferson County Health Department and the Annex.	Hurricanes,	no	HMGP	County	BOCC	TBD					Update - This will be ongoing project for the County. No action has been taken at this time.	Within five year timeframe
10	Retrofit city owned Hurricanes, structures to Withstand wind				City of Monticello	City Commission	TBD	X				funding	Within five year timeframe
11	Develop in county special needs shelter capability				Jefferson County Health Department	County	TBD					Vouchers will be provided for small number of special Needs residents. The funding remaining special needs	Within five year timeframe
12	Tornadoes, through facility	Thundersrtmo s	no	HMGP	City of Monticello	City of Monticello	TBD					Update - The City of Monticello currently has one back up generat.oTrhey will work on getting another one for the city.	Within five year

Purchase a backup generator All hazards for sewer lift Stations.	
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	timeframe
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4

13	Provide post-storm cleanup training for city and county agencies to improve transportation routes after disaster.	Hurricanes, Tornadoes, Thunderstorms, Hailstorms, Wildfires, Flood	No	HMGP	County, City of Monticello	Road Department	TBD				It was determined that an in-house debris clean up training class should be scheduled. This would be an on-going project for the county.	Within five year timeframe
14	Obtain cache of satellite telephones.	All Hazards	No	HMGP	County	Jefferson County Emergency Management	TBD			X		Within five year timeframe
15	Provide backup generators to run the Jefferson County private wells.	Hurricanes, Tornadoes, Thunderstorms	No	HMGP	County	Jefferson Community Water System	TBD					Within five year timeframe

1 6	Purchase a second backup generator to the Jefferson County private wells.	All Hazards	No	HMGP	County	{This is a profit corp.)	TBD			X	fundin g	Within five year timeframe
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5

Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	

17	Provide additional hazardous material response training, equipment, and personnel.	Wildfires	no	HMGP	County	Fire Department	TBD					Hazardous training classes occurred in the Spring and Fall of 2013. This will be an on-going course for the personnel.	Within five year timeframe
18	Submit an application for the City to participate in the Community Rating System (CRS).	Flood	no	HMGP	City of Monticello	Jefferson County Emergency Management	\$12,000					Update • There has been no update on the CRS application for the City of Monticello. Going forward there might be changes to the City COMP plan that would cover some of the costs to apply for the CRS.	Within five year timeframe

19	Add four new volunteers to All Hazards emergency communication system.	no	HMGP	County	Hamm TBD Operators	A class was held in mid-summer of 2013 for the volunteers. This is an ongoing project for the county.	Within five year timeframe
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Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	
<p>Update - It was determined that the survival guide should be included in the 21 information. At this time, the Chamber of Commerce participates with County, City Jefferson County</p> <p>Insert emergency Contacts Hyper into</p> <p>20 Jefferson County HMGP</p>	All Hazards	no		of Monticello Emergency	County \$8500 per year					Emergency theme new comer package. Emergency Contact Hyers are inserted to inform the year	Within a one year
<p>Newcomer inserted in the Tallahassee Democrat, the Monticello Newspaper and to the Chamber Guides</p> <p>Introduce the Community Emergency Response 1 earn (CERT) training throughout the County to include the municipality. Educational updates and Work with the Florida Forest Service on the Community Wildfire Protection Plan to educate And inform the Public of Fire wise</p>	Management	County citizens on who to reach the Monticello Newspaper and to the Chamber Guides		County including the boycott troops. HMGP of Monticello Emergency	increase timeframe package. Of natural hazard. In addition, Hyers are					timeframe package. Of natural hazard. In addition, Hyers are	Of natural hazard. In addition, Hyers are
<p>21</p> <p>22</p>	All Hazards	no		HMGP of Monticello Emergency	including the boycott troops. "TBD Jefferson County has completed two					Within a two year	Within a two year
<p>22</p>	Wildfires	no		HMGP County, City Emergency CWPP and Fire wise programs. It was	discuss a plan for the community for the year					discuss a plan for the community for the year	discuss a plan for the community for the year
<p>And inform the Public of Fire wise</p>					noted that the information on preventing forest fires was detailed on the back of a						

Building g and menu at local restaurant.

Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	

23	Work with the Florida Forest Service to determine the defensible space for the critical facilities throughout the County.	Wildfires	no	HMGP	County, City Jefferson County of Monticello	Emergency Management	N/A	X				Within a two year timeframe
24	Install larger culverts to prevent road washouts at Thunderstorms Vulnerable areas.	Flood, Hurricane,	no	HMGP	County Road Department		TBD	Update • There is no current funding for the installation of larger culverts. This will be an ongoing project(s) for the County.		fundin g		Within five year timeframe
25	Install an Interoperable Communications System and add a Small radio and antenna.	All Hazards	no	TBD	County Emergency Management		\$5 ,000	The communication systems have improved and at this time can interoperate with the repeater and the City of Monticello's police department. A radio and antenna on the tower need to be installed.				Within one year timeframe

Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	
Acquire Water Buffaloes' (tanker Trucks or trailers) to store water on an as needed basis for distribution of water to rural areas.	Wildfires, Urban Fire, Tomatoes, Flood, Hurricanes/Tropical Storms, Severe Thunderstorms, Drought, Heat Wave, winter	no	HMGF	County	Road Department	TBD				It was determined that this is not going to happen. Therefore, this project is deleted .	

9

Jefferson County Sheriff's Office Division of Emergency Management

169 Industrial Park

Monticell

(850) 342

"We're Committed to Keeping You Safe"

David C.

January 15, 2017



Florida Division of Emergency Management!] Attn: Mr. Miles Anderson
 Mitigation Bureau Chief
 2555 Shumard Oak Boulevard Tallahassee, FL 32399-2100



Re: 27P-22 Jefferson County Annual Local Mitigation Strategy (LMS) Update

Carol Ellerbe, Director

As required by the Florida Administrative Code 27P-22.004, we are submitting the following details for the Jefferson County LMS.

A) The current chairman and vice chair for the LMS Committee/Work Group are:

Chair Person: Carol Ellerbe, Department of Emergency Management Director 169 Industrial Park
Monticello, FL 32344
(850) 342-0211
carolellerbe@embargmail.com

Vice Chair: Robert Hall, Department of Emergency Management 169 Industrial Park
Monticello, FL 32344
(850) 342-0211
rhalle_m2@embargmail.com

B) The LMS Committee/Work Group Members are: Emily Anderson, City of Monticello
Parrish Barwick, Jefferson County
David Harvey, Jefferson County Road Department Steve Wingate, City of Monticello
Wallace Bullock, Jefferson County Building Department Bill Bullock, Jefferson County Sheriffs Office
Angela Gray, Jefferson County Property Appraiser Bill Tellefsen, Jefferson County Planning
Bill Letchworth, Jefferson County Solid Waste

.)

Jefferson County 27P-22 Update Report Page 2

Al Cooksey, Jefferson County Schools
Kirk Reams, Jefferson County Clerk's Office Mark Matthews, Jefferson County Fire/Rescue Fred Mosley, Monticello Police
Department Robert Pickels, Duke Energy
Katie Sherk, Red Cross
Traci Buzbee, The Management Experts Sim Stringer, The Management Experts Gail Leek, The Management Experts

(See the attached list for contact information)

C) The following areas have not changed in Jefferson County:

1. Local hazard assessment.
2. Repetitive loss property list.
3. Revisions to maps. Over the past few years, FEMA has been performing the Flood Insurance Study and Flood Insurance Rate Maps (FIRM's) for Jefferson County. The FIRM's are scheduled to be completed by February 5, 2014.

D) The following change has occurred in Jefferson County:

1. Critical facility list: A new wastewater treatment plant was built in 2013. It is located on Scott Drive in Monticello, FL.

E) LMS Mitigation Project or Action List

On November 25, 2013, the Jefferson County LMS committee/working group task members held their annual LMS meeting. The mitigation projects were discussed and details were updated as to the status of the projects (i.e. ongoing, deferred, in progress, deleted, completed, or new).

(See the attached excel spreadsheet for the updated information.)

Let me know if you have any questions.

Carol Ellerbe
Director, Jefferson County Emergency Management

Jefferson County Sheriff's Office Division of Emergency Management

169 Industrial Park

Monticello, FL 32344

(850) 342-0211

"We're Caring & Preparing"

David C. Hobbs, Sheriff



January 12, 2015



Carol Ellerbe, Director

Florida Division of Emergency Management Attn: Michael Wallick
Mitigation Planning Section 2555 Shumard Oak Boulevard Tallahassee, FL 32399-2100

Re: 27P-22 Jefferson County Annual Local Mitigation Strategy (LMS) Update

As required by the Florida Administrative Code 27P-22.004, we are submitting the following details for the Jefferson County LMS.

A) The current chairperson and vice chairperson for the LMS Committee/Work Group:

Margaret Levings Director
Jefferson County Health Department 1255 W. Washington Street Monticello, FL 32344
(850) 342-0170

Carol Ellerbe, Director
Jefferson County Emergency Management 169 Industrial Park
Monticello, FL 32344
(850) 342-0211

B) The LMS Committee/Workgroup Members are:

Robert Hall, Jefferson County Emergency Mgmt. Emily Anderson, City of Monticello
Parrish Barwick, Jefferson County Coordinator David Harvey, Jefferson County Road Dept.
Steve Wingate, City of Monticello
David Hobbs, Jefferson County Sheriff's Office Wallace Bullock, Jefferson County Building Dept.

LMS Committee/Workgroup Members (continue)d

LMS Committee/Workgroup Members (continued Bill Bullock, Jefferson County Sheriff's Office Angela Gray, Jefferson County Property Appraiser Bill Tellefsen, Jefferson County Planning Beth Letchworth, Jefferson County Solid Waste Al Cooksey, Jefferson County Schools Kirk Reams, Jefferson County Clerk's Office Mark Matthews, Jefferson County Fire/Rescue Fred Mosley, Monticello Police Dept. Robert Pickels, Duke Energy Katie Sherk, Red Cross Traci Buzbee, The Management Experts Gail Leek, The Management Experts

(See the attached list for details and specific contact information)

C) The following areas have not changed in Jefferson County:

1. Local hazard assessment.
2. Repetitive loss property list.
3. Critical facilities list.

D) Map Revisions

The county Flood Insurance Study and digital Flood Insurance Rate Maps from the FEMA formal approval were completed on February 5, 2014.

E) LMS Mitigation Project or Action List

On October 16, 2014, the Jefferson County LMS committee/working group task members held their annual LMS meeting. The mitigation projects were discussed and details were updated as to the status of the projects (i.e. ongoing, deferred in progress deleted, complete, or new).

(See the attached excel spreadsheet for the updated information.)

Let me know if you have any questions

Sincerely,
Jefferson County Sheriff's Office,
Division of Emergency Management

1/14/2015 Centurylink Webmail

Centurylink Webmail carolellerbe@embarqmail.com

RE: 27P-22 Update For Jefferson County

From : Michael Wallick <Michael.Wallick@em.myflorida.com>

Wed, Jan 14, 2015 02:25 PM

Subject : RE: 27P-22 Update For Jefferson County

To : Carol Ellerbe (Jefferson Co EM) <carolellerbe@embarqmail.com>

Cc: Traci Buzbee <traci@tme-consultants.com> , Robert Hall

<rhallem2@embarqmail.com>

Got it! Thanks so much for the submittal. Sincerely,

Michael Wallick, MSP

Mitigation Planner

Florida Division of Emergency Management 2555 Shumard Oak Blvd.

Tallahassee, Florida 32399

Office (850) 922-0325

michael.wallick@em.myflorida.com www.floridadisaster.org

From: JEFFERSON COUNTY [<mailto:carolellerbe@embarqmail.com>]

Sent: Wednesday, January 14, 2015 2:26 PM

To: Wallick, Michael

Cc: Traci Buzbee; Robert Hall

Subject: 27P-22 Update For Jefferson County Attached, please find the following:

<http://rrail.cenh.ryink.net/zirmr/a/h/printmessage?id=52544&om=1> 1/2

**Jefferson County
Local Mitigation Strategy (LMS) Meeting Minutes September 2, 2015**

Welcome - Carol Ellerbe, Vice Chair welcomed the members and guests as Margaret Levings Chair, had a previous obligation and could not attend.

11 LMS Committee Members & Guests Introduction - Carol Ellerbe asked that all in attendance introduce themselves and sign the attendance roster

111 LMS Mitigation Project or Action List - the committee members went through each of the projects and updates were captured. Emails were sent out to members not in attendance to capture updates on projects that those in attendance could not comment on.

- IV Public Participation** - The importance of including and educating the public on mitigation was discussed Listed below are the activities being conducted by Jefferson County:
- Jefferson County Emergency Management advertises all LMS meetings in the local paper.
 - First Responders provide materials through an outreach booth at the Jefferson County Watermelon Festival held every June.
 - Emergency Management participates and disseminates disaster safety information at the Open House held at the Beau Turner facility every spring for the youth of Jefferson County.
 - Jefferson County Fire Rescue participates in "Show & Tell" quarterly for all schools within the county.
 - Jefferson County Fire Rescue utilizes the month of October ... Fire Prevention Month to disseminate fire safety information to the citizens
 - Florida Forest Service brings Smokey the Bear to the schools to educate the kids in wildfire safety tips and techniques
 - Department of Health conducts an outreach program in the low income housing areas and disseminates information to the residents.
 - Jefferson County Emergency Management conducts disaster safety presentations at the Rotary, Chamber and various churches.
 - Jefferson County disseminates disaster safety information in the "Welcome Packs" that are provided to new residents from the Chamber of Commerce.

V Adjourn - There being no further business, the meeting was adjourned.

Jefferson County Sheriff's Office
Division of Emergency Management
169 Industrial Park
Monticello, FL 32344
(850)342-0211

" *'re Caring & Preparing*"



David C Hobbs Sheriff



Carol Ellerbe, Director

December 10, 2015

Florida Division of Emergency Management Attn: Alex Falcone
Mitigation Planning Section 2555 Shumard Oak Boulevard Tallahassee, FL 32399-2100

Re: 27P-22 Jefferson County Annual Local Mitigation Strategy (LMS) Update

As required by the Florida Administrative Code 27P-22.004, we are submitting the following details for the Jefferson County LMS.

The current chairman and vice chairman for the LMS Committee/Work Group:

Margaret Levings, Chair
Jefferson County Health Department 1255 W. Washington Street Monticello, FL 32344
(850) 342-0170

Carol Ellerbe, Vice Chair
Jefferson County Emergency Management 169 Industrial Park
Monticello, FL 32344
{850} 342-0211

The LMS Committee/Workgroup Members are:

Robert Hall, Jefferson County Emergency Mgmt. Emily Anderson, City of Monticello
Parrish Barwick, Jefferson County Coordinator
David Harvey, Jefferson County Road Dept. Steve Wingate City of Monticello
David Hobbs, Jefferson County Sheriff's Office
Wallace Bullock, Jefferson County Building Dept. Bill Bullock, Jefferson County Sheriff's Office

Angela Gray, Jefferson County Property Appraiser Bill Tellefsen, Jefferson County Planning
Beth Letchworth, Jefferson County Solid Waste Al Cooksey, Jefferson County Schools
Kirk Reams, Jefferson County Clerk's Office Mark Matthews, Jefferson County Fire/Rescue Fred Mosley, Monticello Police
Dept.

Robert Pickels, Duke Energy

Red Cross Area 2 Representative

Traci Buzbee, The Management Experts Gail Leek, The Management Experts

Current Project List and Meeting Minutes Attached Major Changes:

Local hazard assessment: There have been a few natural hazards that have had minor impact on the county. The extent for the thunderstorm and wind was 63.3 mph causing several trees down and debris clean up in the City of Monticello and the unincorporated areas of the county. These storms however, did not have *any* significant change to the hazard risk or vulnerability.

Repetitive Loss (RL) Property List: According to the Jefferson County Planning Department December 2015, there have been no changes to the RL property list for the county.

Critical facilities list: There have been no significant changes to the critical facilities list for the county in 2015.

Map Revision's The Flood Insurance Rate Maps (FIRM) were updated on February 5, 2014. There have been no relevant maps revised or updated in 2015.

Let me know if you have any questions. Sincerely,

Carol Ellerbe, Director

Jefferson County Sheriff's Office/ Division of Emergency Management

Jefferson County Local Mitigation Strategy Project List - September 2015

1	Retrofit the Jefferson County Hazards au.	All	no	HMGP	County	Jefferson County Emergency Management	This project was submitted in the HMGP application, February 2013, however it didn't reach the year Final review for the project. Therefore, it is considered an on-going project	Within a five year timeframe
2	Install a new console communication system in this pacht.	All hazards	no	Comm. Fund	County	Jefferson County Emergency Management	\$90,000 Project completed.	Complete
3	Install 3rd console communication system in dispatch hazards after the main Console is replaced.	All	no	TBD	County	Jefferson County Emergency Management	Cost above	Included In progress in above

4	Improve the communications and towers withinI hazards the county for all first responders.	no	Comm. Fund	County	County	Some improvement save been made but it has not increased the coverage. No new towers have been \$200- 300k added , just back-up generator for the South Repeater. Cost was between \$20 - \$30k. There is now 24f7 power to operate.
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	Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
								New	Completed	Deferred	If Deferred Why?	

5	Retrofit County owned structures to withstand											
	in damage for the Jefferson County High School. The Annex. the Tornadoes, Jefferson County Thunderstorms		no	HMGP	County	BOCC	TBD					Update - This will be ongoing project for The County. No action has been taken at this time. A new Fire Department was built. but it
	Health Department and the Annex and the Fire Dept. . . .											Was not built to withstand wind damages.
6	Retrofit city owned Structures to withstand wind Thunderstorm Damage.	Hurricanes, Tornadoes,	no	HMGP	City of Monticello	City Commission	TBD					Within five X funding year timeframe
7	Develop in county Special needs shelter capability through facility	Hurricanes, Tornadoes,	no	HMGP	County	Jefferson County Health Department	TBD					Vouchers will be provided for a small Number of special needs residents. he remaining special needs group 1ft be sent to Tallahassee for
	Thunderstorms											Update - The City of Monticello

8	Purchase a backup generator for sewer lift Stations.	All Hazards	Mitigation Goals Achieved	HMGP	City of Monticello	City of Monticello	TBD	Currently has one back up generator for the city. They will work on getting another one with Steve Wingate for an update.	Status	Within five year timeframe	EM Director is to get another one or is to get
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9	Provide post-storm cleanup training for city and county agencies to improve transportation routes after Disaster.	Hurricanes, Tornadoes, Thunderstorms, Hailstorms, Wildfires, Flood	no	HMGP	County, City of Monticello	Road Department	TBD	It was determined that an in-house debris clean up training class should be scheduled. This would be an on-going project for the county.			Within five year timeframe
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10	Obtain a cache of Satellite telephones	All Hazards	no	HMGP	County	Jefferson County Emergency Management	TBD		x	funding	Within five year timeframe
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	Provide backup generators to run The Jefferson County private wells.	Hurricanes, Tornadoes, Thunderstorms	no	HMGP	County	Jefferson Community Water System	BO		x	funding	Within five year lime frame
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	Purchase a second backup generator					(this is a profit)					Within five
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11

|

12

Provide additional hazardous

Material response Wildfires
13 training,

no

HMGP County Fire Department

Two training classes occurred, Summer

TBD 2014 and Winter 201.5 Additional On-going training will
be provided on a as needed

equipment, and basis.
Personnel.

ID	Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation/Management	Estimated Costs	Status				Timeframe for Completion
								New	Completed	Deferred	Deferred Why?	
14	Update - There has been no update on Submit an application for the City to participate in the Community Rating System (CRS).	the CRS application for the Jefferson County Monticello Flood Monticello	no	LMGP	City of	Agency Responsible for Implementation/Management	\$12,000	changes to the City COMP plan would cover some of the costs to apply for the CRS. EMD Director log with Steve Wingate for update				year line frame

15 Add new volunteers to assisting the We currently have 6 trained HAMM All Hazards no HMGP County HAMM TBD Within five HAMM TBD operators. In the progress of recruiting year

Emergency communication system Operators More volunteer ers. timeframe

16	Insert emergency contacts flyer into Jefferson County Hazards newcomer package.	All	no	EMPA	County, City Jefferson County per of Monticello Emergency t fiscal year	\$8500	This is an on-going project that JCEM conducts every year. Materials are disseminated at the Watermelon On-going Festival and local events, charity group and Senior centers.
17	Public of Fire wise building and landscape design principles.		No	HMGP	County Jefferson County of 'm no Emergency Management	N/A	Money from FEMA will be available for the fire wise program within a one year line frame . The EM Director will meet with the Florida Forest Service to develop a plan for the community for the CWPP. Within a two and fire wise programs. It was noted that the year information on preventing forest fires was detailed. The back of a menu at a local restaurant Todd Schroeder is the mitigation specialist to contact for the CWPP.
18	Work with the Florida Forest Service to determine the defensible space Wildfires		no	HMGP	County Jefferson County of 'm no Emergency Management	N/A	Within a two year

Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
							New	Completed	Deferred	If Deferred Why?	
5											
Work with the Florida Forest Service on the Community Wildfire Protection Plan to and inform the	Wildfires										

	Description of Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
								New	Completed	Deferred	If Deferred Why?	

19	Install larger culverts to prevent road washouts at vulnerable areas.	Flood, Hurricane, Thunderstorms	no	HMGP	County	Road Department	TBO					Update - There is no current funding for the installation of Larger culverts. This will be an Ongoing project(s) for the Director will get compile for Importance.	Within five year timeframe a fist to	County. EM
20	Continue CERT Training and conduct educational updates and recertification	All Hazards	no	TBO	County, City of Monticello	Jefferson County Emergency Management	TBO					Update - It was determined that there needs to be CER Class to revive the CERT group. Lnfomlation was discussed on inducing the Within a two Boyscott troops. Jellerson County has completed year Rounds on the CERT training. Educational timeframe Updates and recertification will occur. Hoping to Hold a new class before August 2016.		

**CLAS Help Wanted
EMPLOYMENT OPPORTUNITY**

Deadline for Wednesday Paper 3:00 p.m. on Mondays
Deadline for Friday Paper 3:00 p.m. on Wednesdays

For Rent Help Wanted

Charming, Spacious FULL TIME KENNEL

Historic Home
Lovely 4 BR, 1.5 BA. In town, walk to everything.
For sale or rent. 631-0577.
www.MonticelloRealEstate.com
Info.

TECHNICIAN, week-ends and holidays required. **Must** love animals. Apply in person at Wolf Creek Pet Adoption center on E. Wash-

2/24,rtn ington St. 4/29,rtn,c

MOBILE HOMES for Rent in Aucilla area start-

Positions open: Front desk & Housekeeper at



Equipment Operator - CDL Class A

The Jefferson County Board of County Commissioners is seeking qualified applicants for full-time Equipment

Operator possessing "Commercial Driver's License, COL". "CLASS A" REQUIRED
The successful applicant will demonstrate the ability

To operate equipment with complex controls requiring a **(&SO)** 997-7400.

High degree of skill and manipulative ability. The Operator is required to exercise skill and care in the operation of assigned equipment and to perform service and inspection on the equipment as well as protect property from damage. Work is objectively performed to provide a service to the citizens of Jefferson County.

ESSENTIAL JOB FUNCTIONS:

Operates one or more of the following items most of Monday, May 9, 2016 beginning at 6:00 PM. The meeting will be held in the Board room located at 1490 W. Washington Street, Monticello, FL. An agenda may be viewed at www.jeffersonschooldistrict.org. Questions may be directed to the District office by calling (850) 342-0100 Monday thru Friday between the hours of 8:00 AM 4:00 PM.
• Tractor Trailer, Dump Trucks, Low Boy Transport, etc.

ing at \$400. Month. For more info. Call 352-359-

Notifies



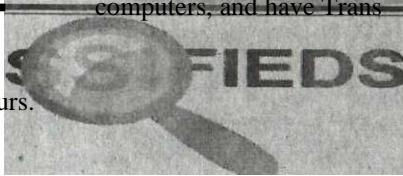
NOTICE
The Wilderness Coast Public Libraries' (W.D.) Governing Board will meet on Monday, May 9, 2016 at 1:30 p.m. at the Wakulla County Public Library at 4330 Crawfordville Ridgway, Crawfordville, FL. The meeting is open to the public. For more information, please contact _____ at _____.

PUBLIC NOTICE
The Jefferson County Local Mitigation Strategy (LMS) Committee/Workgroup is offering a public opportunity to review the current and updated LMS Plan. A copy of the plan will be available at the Jefferson County Emergency Management (EM) office. Any comments for the plan will need to be submitted to the EM office no later than May 6, 2016. S/4

NOTICE
THE SCHOOL BOARD OF JEFFERSON COUNTY will meet in Regular Session on Monday, May 9, 2016 beginning at 6:00 PM. The meeting will be held in the Board room located at 1490 W. Washington Street, Monticello, FL. An agenda may be viewed at www.jeffersonschooldistrict.org. Questions may be directed to the District office by calling (850) 342-0100 Monday thru Friday between the hours of 8:00 AM 4:00 PM.
PLEASE NOTE THAT PUBLIC COMMENTS Will BEAT THE ENO OF THE

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Eco no Lodge, Lloyd.
Must be familiar with
computers, and have Trans



portation. Flexible hours.

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.AGENDA• 5/4

• Off Road Equipment, Backhoes and Front End Loaders.

LEGALNOTICE

• Construction equipment including vibratory roller The Jefferson County Licensing Boan! will hold a meeting on May 16, 2016 at 4:00

B ll D D ,_ _ 1, ' P.M.. l ll e meeting will be held at the Jefferson County Building Department, 445 W.

U ozers. ump T1....._s, etc. , Palmer Mill Road. Monticello, fl. . nu, Meeting may be continued as necessary.

LOCAL MITIGATION STRATEGY WORKGROUP

SIGN-IN

DATE: 10 - 1 - 11

TIME: 10:00 & on

NAME	AGENCY	PHONE	EMAIL
Pat Cichon	Jefferson Communities Water	850 228 4633	pac430@embargo@mail.com
Todd Schroeder	French Forest Saw	850-519-0666	Todd.Schroeder@freshfromflorida.com
Traci Buzbee	TME, LLC	850 528 0785	traci@tme-consultants.com
Margaret Levings	FDOT - Jefferson/Madison	850-342-0170	margaret.levings@flhealth.gov
Angela Gray	Property Appraiser	850-997-3356	angela.gray@jeffersonpa.net
Brett King	P.A. Office	"	brett.king@jeffersonpa.net
Bill Bullock	JCSO	850-251-1372	Bullockww@flcjn.net
Sheriff Hobbs	JCSO		hobbsD@flcjn.net

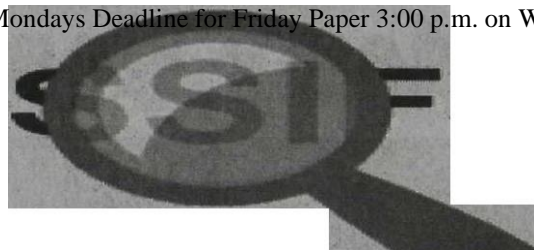
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Deadline for Wednesday Paper 3:00

HELP WANTED

Mondays Deadline for Friday Paper 3:00 p.m. on Wednesdays



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If you are a tram pla 't'r,
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friendly nm-do- allitude,

The City of Monticello is seeking applications for a **full time Solid Waste Driver/Operatoremployee.** Essential Duties include collecting household items and tree debris from residences and disposing in trash truck, and various other duties. Preferred experience in heavy equipment operations, specifically; boom arm on debris truck. Class "B" CDL License and a High School Diploma or equivalency diploma a must. Complete job description and application available at City Hall; (850) 342-0153. **Application deadline 5:00 p.m., 10/21/**

Mobile Home for Ren newly refurbished in level rural setting. \$800. month. Call after 8:30 am and before 8:30 pm. NO Pets. 850-997-8900 or 997-0783. 1 on c
FOR RENT
3BR/2BTH & 3 BR Double Wide Mobile Homes and also 2 Park Models For Rent. Call after 9:30 a.m. *No calls* after 7p.m. **850-997-3890 or 997-1638** Closed on Sunday. No Pets. 9/2 tfn.c
Cabin For Rent, Studio Style, galley kitchen with

ffIITIC£.

In accordance with Florida Statue a public auction will be held on October 31 , 2016 at 10:00 A.M.
For: 1995 Chevy VIN 1 1GCGC24K2SE169973
To be sold AS IS for towing and storage charges, conditions and terms at auction.
Stewart's Towing 175S. JdTerson St.
Montcello, FL 32344 Phone: 850/342-1480

10/19/16

Local Midgatlon Strategy (LMS) Planning Committee to Meet on Tuesday, October 25, 2016

The Jefferson County LMS Planning Committee/Work Group will meet at JO a.m. on **Tuesday, October 25, 2016** at the Jefferson County Emergency **Management** Office. The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long-term risk for protecting people and property from the effects of natural disasters and to build a safer and stronger community. Please contact the Jefferson County Emergency Management at 850-342-0211 for more information.
10/12.14,19,2

NOTICE OF APPLICATION FOR TAX DEED
NOTICE IS HEREBY GIVEN. that Octavio N. Lim the holder of the following cer- tificate has med said certificate for a tax deed
The certificate number, yearof issuance,description of the property and the names in which It was assessed are as follows: ·
Certificate Number: 259 Year of Issuance: 2010 Description of Property: 22-IN-3E-OO10--0000-0610 3.63 Aerts
Lots 61,67,73 & 79
Village of Lloyd

ORB 66PG686
Sitt Addr: SS: Gamble Road -
Monticello, Florida
Name in which assessed: Susan
K. Burke

All of said property being in
the County of Jefferson, State
of Florida. This property
when sold may be subject to
the current year taxes.

2016. Submit to City Hall.

Unless such certificate shall
be redeemed according to
law, the property described in
such certificate will be
sold to the highest bidder at

the Jefferson County Courthouse, north door on the 3rd DAY
OF NOVEMBER 2016 at 11:00 A.M.
Dated this 23rd day of September, 2016.

separate bath. Perfect for sin-



A vertical job advertisement. At the top, there is a graphic of a person's head and shoulders, with a newspaper icon below it. The word 'NEWS' is written on the newspaper. Below the graphic, the text reads: 'General News Reporter needed for the newspapers in Madison County. Must be a team player, able to handle multiple tasks, and be able to cover a variety of stories. Experience in writing/reporting preferred.' The bottom of the ad has a small, illegible URL.

A rectangular sign for a home for rent. At the top, there is a graphic of a house with three windows. Below the graphic, the text reads: 'Homes FOR RENT' in a stylized font. Underneath, it says '3BR/2BTH Double Wide'. The sign is partially obscured by a black line on the right side.

**Jefferson County
Local Mitigation Strategy (LMS) Meeting October 25, 2016**

Welcome

II LMS Committee Members & Guests Introduction Review committee list

III LMS Mitigation Project or Action List
What is the status update or progress of the LMS mitigation projects? New Projects?

IV Public Participation V Adjourn

Rat Cichon	Jefferson Communities Water	850 228 4633	pac430@embargo@mail.com
Tadd Schroeder	Florida Forest Serv	850-519-0666	Tadd.Schroeder@floridastate.gov
Traci Buzbee	TME, LLC	850-528-0785	traci@tme-consultants.com
Margaret Levinge	FDOT - Jefferson/Madison	850-342-0170	margaret.levinge@flhwa.hhs.gov
Angela Gray	Property Appraiser	850-997-3356	angela.gray@jeffersonpa.net
Brett King	P.A. office	"	brett.king@jeffersonpa.net
Bill Bullock	JCSO	850-251-1372	BullockWW@flcjin.net
Sheriff Hobbs	JCSO		hobbsD@flcjin.net
Paula Campbell	JCFM	850-342-0211	jeffersonpa.camp@embargo@mail.com
Carol Ellerbe	JCFM	850-342-0211	carollerberbe@embargo@mail.com

LOCAL MITIGATION STRATEGY WORKGROUP

SIGN-IN DATE: 10-00-16 TIME: 10:00 am

NAME: _____ EMAIL: _____

-
-

RESOLUTION NO. 10-00-16-01
A RESOLUTION OF JEFFERSON COUNTY, FLORIDA; ADOPTING THE LOCAL MITIGATION STRATEGY

WHEREAS, Jefferson County is subject to natural hazards such as floods, storm surge, hurricanes, tropical storms, wildfires, drought, heat waves, winter storms, tornados, etc and these hazards affect the health and property of the citizens of the Jefferson County as well as its economic viability; and

WHEREAS, the Local Mitigation Strategy Committee worked to prepare the countywide, unified Local Mitigation Strategy to include a report detailing countywide hazards and vulnerabilities, a list of critical facilities, a list of policy recommendations and a prioritized list of hazard mitigation programs, projects and initiatives; and


WHEREAS, hazard mitigation consists of actions such as structural enhancements, planning, code enforcement and responsible development, taken to permanently reduce or eliminate the long term risks to people and property from the effects of hazards; and

WHEREAS, in years past, the Local Mitigation Strategy has previously been adopted by both the County and the City of Monticello;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF JEFFERSON COUNTY, FLORIDA, hereby adopts the Local Mitigation Strategy; RESOLVED, FURTHER, that this resolution shall become effective immediately upon adoption.

PASSED AND DULY ADOPTED, in regular session by the Jefferson County Board of County Commissioners on this 17th day of May, 2016 .

JEFFERSON COUNTY BOARD OF COUNTY COMMISSIONERS

Attest: 
Kirk Reams, Clerk


Steve Wiker, Chairman

U.S. Department of Homeland Security
FEMA Region JV
3003 Chamblee Tucker Road
Atlanta, GA 30341



FEMA

May 31, 2016

Mr. Miles Anderson
State Hazard Mitigation Officer Division of Emergency Management 2555 Shumard Oak Boulevard Tallahassee, Florida 32399-2100

Reference: Jefferson County FL Local Mitigation Strategy Plan Update Dear Mr. Anderson:
We are pleased to inform you that the Jefferson County FL Local Mitigation Strategy Plan Update is in compliance with the Federal hazard mitigation planning requirements resulting from the Disaster Mitigation Act of 2000 as contained in 44 CFR 201.6. We have recently received from your office the following resolution for inclusion within this plan in accordance with Program Administration by States (PAS) requirements, and subsequently concur that this community be included under the approved Jefferson County FL MJ LMS. The updated plan is approved for a period of five (5) years to May 31, 2021.

This plan approval extends to the following participating jurisdiction that provided a copy of its resolution adopting the Jefferson County FL LMS plan update:

- Jefferson County, Unincorporated

The approved participating jurisdiction is hereby an eligible applicant through the State for the following mitigation grant programs administered by the Federal Emergency Management Agency (FEMA):

- Hazard Mitigation Grant Program (HMGP)
- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)

National Flood Insurance Program (NFIP) participation is required for some programs.

STATE OF FLORIDA
DIVISION OF EMERGENCY MANAGEMENT

RICK SCOTT
Governor

BRYAN W. KOON
Director

February 08, 2016

Ms. Margaret Levings

Jefferson County Local Mitigation Strategy Chair 1255 W. Washington Street
Monticello, Florida 32344

Re: Florida Administrative Code 27P-22.004 Compliance Dear Ms. Levings:
The Florida Division of Emergency Management's Mitigation Planning Unit received your updated 27P-22.004 information for the 2015 calendar year. After looking through the information received, it has been determined that your update is complete and your Local Mitigation Strategy is in compliance with F.A.C. 27P-22 .004.

If you have any questions regarding this matter, or if our office can be of any further assistance, please contact our Mitigation Planning Manager, Jamie Leigh Price, at 850- 412-9925 or jamie.price@em.myflorida.com.

Respectfully,

Miles E. Anderson, Bureau Chief, Mitigation
State Hazard Mitigation Officer

MEA/af

DIVISION HEADQUARTERS Tel: 850-413-9969 • Fax: 850-488 -1016
2555 Shumard Oak Boulevard www.AorldsDisaster.org Tallahassee, FL 32399-2100

STATE LOGISTICS RESPONSE CENTER
2702 Directors Row
Orlando, FL 32809-5631

CenturyLink Webmail carolellerbe@embarqmail.com

- **Jefferson 27P-22 Update**

From : Alexander Falcone
<Alexander.Falcone@em.myflorida.com>
Subject: Jefferson 27P-22 Update
To : margaret levings
<margaret.levings@flhealth.gov>
Cc : Carol Ellerbe (Jefferson Co EM)
<carolellerbe@embarqmail.com> Good Afternoon,

Mon, Feb 08, 2016 02:03 PM
2 attachments

Thank you for your submission of the required 27P-22 annual update. Please find your compliance letter attached.

Respectfully,

Alexander Falcone, MPA Lead Mitigation Planner
Florida Division of Emergency Management 2555 Shumard Oak Blvd.
Tallahassee FL, 32399
Office: 850-921-9063
Cell: 850 -694-6619

Alexander.Falcone@em.myflorida.com

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Complianceletter.Jefferson.02.08.16.pdf

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PaGE BOARD OF COUNTY COMMISSIONERS
MINUTE BOOK 23, PAGE -----

The Board met this date in regular session. Present were Chairman Stephen Walker, COUNTY COMMISSIONERS Commissioners Betsy Barfield, Benjamin "Benny" Bishop, Hines Boyd and Gene Hall. Also present were County Attorney Buck Bird and Clerk of Court Kirk Reams.

REGULAR SESSION
March 15 , 2016

1. Jennifer Johnson, with the County Health Department, gave a presentation on Tobacco Cessation programs that various governmental entities utilize.
2. Citizen Bobbie Golden stated that she had issues with the condition of a property along Barnes Road. Commissioner Barfield stated she would like to re-address the Code Enforcement issue and have the Board utilize a magistrate system.
3. Economic Development Director Julie Conley introduced Derrick Hart, who has established Camp Warrior on the property purchased at the end of Fanlew Road. Camp Warrior will serve over 1000 kids each summer.
4. **On motion by Commissioner Bishop, seconded by Commissioner Boyd and unanimously carried, the consent agenda--consisting of the approval of the agenda, and the minutes of the March 151 Regular Session--was approved.**
5. Citizen Vashon Ransom requested the Board donate \$70,000 towards the first annual **MLK** Celebration concert. Commissioner Boyd stated this was outside the business model of any county options and that Mr. Ransom should contact the organizers of the Southern Music Rising festival for direction.
6. Clerk of Court **Kirk** Reams introduced two resolutions of support for grants at the Wacissa Springs headwaters park. **On motion by Commissioner Barfield, seconded by Commissioner Boyd and unanimously carried, the resolution of support for the FBIP grant was approved. On motion by Commissioner Barfield, seconded by LWCF grant was approved.**
7. County Coordinator Barwick introduced the Road Stabilization Program item. He stated that the current

budget could not support rt the items of work that had been requested by individual Commissioners. Commissioner Boyd gave a list of roads per district that he felt needed stabilization. Clerk of Court Kirk Reams requested that each Commissioner meet with both the Clerk and County Coordinator to establish priorities within each district to bring back for discussion at a future meeting.

8. Commissioner Barfield requested that the Glen Bishop Enterprises project be placed on the next agenda.
9. The warrant register was reviewed and bills ordered paid.
- 10. On motion by Commissioner Barfield, seconded by Commissioner Boyd and unanimously carried, the meeting was adjourned.**



Chaim Ian

Attest: _____

Clerk

Stabilization of road rather than items like plants on US-19. Commissioner Barfield stated a combination of paving and road stabilization is needed

- 9. County Coordinator Parrish Barwick stated he would be setting mosquito traps this month. He noted that the mosquito control program started over last year and that people would need to contact his office if they had an issue.
- 10. County Attorney Buck Bird praised the Board for rising to the occasion regarding the issue of re-districting. He noted that the Attorney had filed the answer to the Federal Court.
- 11. Commissioner Hall thanked County Coordinator Barwick for the draft of the annual report. Commissioner Hall also mentioned the owner of Willow Pond was having issues with flooding and he requested staff to look into the issue regarding the dam at Lake Miccosukee.
- 12. Commissioner Bishop requested that Commissioner Hall replace him on the Workforce Development Board. The consensus of the Board was to appoint Commissioner Hall. Commissioner Barfield requested this item be placed on the next consent agenda.
- 13. Commissioner Barfield stated she was approached by the Wildflower Foundation for the State of Florida and that they had requested a portion of SR-59 not be mowed. Chairman Walker stated he had spoken with this entity as well and they had reached an agreement.
- 14. Commissioner Barfield inquired about a possible roundabout in Wacissa. She asked if it was possible for the County to pay for this while SR-59 was being re-surfaced if it was not cost prohibitive. She requested that County Engineer Debbie Preble look into this issue.
- 15. Commissioner Barfield stated that Old Lloyd Road would need to be considered for re-surfacing and widening in the near future. She also inquired why there were no recent NRCS projects, to which Clerk of Court Kirk Reams stated there were no declared emergencies so the County had not been eligible. She also praised the city for the parking lot on Dogwood and congratulated Clerk Reams for the grant money received for the A Building.
- 16. Commissioner Barfield requested that the Bishop building be placed on the next agenda and requested the following items: what services in-kind the County and City had Performed; the cost of the building; the status of the building, rent and contract. She also requested to see the certificate of contract.
- 17. On motion by Commissioner Barfield, seconded by Commissioner Boyd and unanimously carried (5-0), the meeting was adjourned.**

Chairman
Attest: _____
Clerk

Questions were raised concerning the approval process for this project as to whether it would be a Board vote or placed on ballot as a referendum item.

9. County Attorney Buck Bird presented the federal consent decree regarding the redistricting lawsuit. He stated that the issue should be resolved, as the federal judge had accepted the new map proposed. Commissioner Boyd discussed the case from 1984 that precipitated the map issue, stating it was outdated and the center of previous costly lawsuits. **Commissioner Boyd made a motion to have the judge vacate the ruling, to which Commissioner Barfield seconded for discussion. Commissioner Boyd amended his motion for clarification, not vacating, to which Commissioner Bishop seconded for discussion.** There was a discussion as well as citizen input on the 1984 case. **The amendment failed 2 to 3 (Barfield, Hall, and Walker opposed). The original motion failed 1 to 4 (Barfield, Bishop, Hall and Walker opposed).**
10. County Coordinator Barwick informed the Board of five vehicles that he was declaring surplus. **On motion by Commissioner Barfield, seconded by Commissioner Bishop, and unanimously carried, the list was approved.**
11. Commissioner Hall spoke of his desire to do an evaluation of the County Coordinator.
12. Commissioner Boyd stated that he had an individual outside of his district that was willing to serve on the Planning Commission.
13. Chairman Walker stated that County Coordinator Barwick should be compensated for taking on the role of Mosquito Control Director.
14. The warrant register was reviewed and bills ordered paid.
15. **On motion by Commissioner Bishop, seconded by Commissioner Barfield and unanimously carried (5-0), the meeting was adjourned.**

Chairman
Attest: -----
Clerk

**DIVISION OF EMERGENCY
MANAGEMENT**

RICK SCOTT
Governor

BRYAN W. KOON
Director

April 27, 2016

Margaret Levings
Local Mitigation Strategy Chair 1255 W. Washington Street Monticello, FL 32344

Re: Jefferson County Local Hazard Mitigation Plan Approved Pending Adoption Dear Ms. Levings:
This is to confirm that we have completed a State review of the Jefferson County Local Mitigation Strategy (LMS) update for compliance with the federal hazard mitigation planning standards contained in 44 CFR 201/6(b)-(d). Based on our review and comments, Jefferson County developed and submitted all the necessary plan revisions and our staff has reviewed and approved these revisions. We have determined that the Jefferson County LMS plan is compliant with federal standards, subject to formal community adoption, for the jurisdictions below:

Jefferson County, Unincorporated City of Monticello

Upon submittal of a copy of all participating jurisdictions' documentation of their adoption resolutions to our office, **we will** send all necessary documentation to the Federal Emergency Management Agency (FEMA) who will issue formal approval of the Jefferson County LMS.

If you have any questions regarding this matter, please contact Alexander Falcone at 850-921-9063 or Alexander.Falcone@em.myflorida.com.

Respectfully,



Miles E. Anderson, Bureau Chief, Mitigation
State Hazard Mitigation Officer

MEA/af

Attachments: MEMORADUM: State approval of LMS plans under Program Administration by States (PAS)



DIVISION HEADQUARTERS Tel: 850-413-9969 • Fa x. 850-488-1 016 **STATE LOGISTICS RESPONSE CENTER**
25 55 Shu mar d Oa k Bo ul ev ar d www.FloridaDisaster.org Ta ll a ha ssee . FL 323 9 9 -2 2702 Oi recto r 9> of 1 0
100 Orl and o. FL 32 BO!f 6 1

5/18/2016

Centur)UnkWebmail

CenturyLink Webmail carolellerbe@embarqmail.com

• **Re: Jefferson**

From: Gail Leek <gleek@realknow.com>

Wed, May 18, 2016 12:06 PM

Subject: Re: Jefferson

To: Alexander Falcone

<Alexander.Falcone@em.myflorida.com>

Cc: JEFFERSON COUNTY

<c.aroellerbe@embarqmail.com>, Traci Buzbee

<tsbuzbee@hotmail.com> Hello Alex,

Nice to hear from you and hope that you had a good conference last week.

I spoke with Carol and the LMS County Resolution should have been signed at the BOCC meeting last night.

It will be forwarded to your attention for FEMA submission within the next few days. Let me know if you have any questions.

Take care and have a good day!

Regards, Gail M. Leek

The Management Experts, LLC 303.681.2458

303.513.7153

On May 18, 2016, at 9:40 AM, Falcone, Alexander

<Alexander.Falcone@em.myflorida.com> wrote:

Gail,

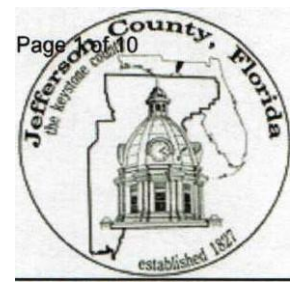
I hope all is well. Just checking in to see where Jefferson is in terms of resolutions. They expire 5/30. Just a reminder we need to get at least one before the expiration date.

Thanks,

Alexander Falcone, MPA, CFM Lead Mitigation Planner

<http://mail.centur>>link.net/zirrbra'h/printmessage?id=86886&IGm=1

1/2



BOARD OF COUNTY COMMISSIONERS
THE KEYSTONE COUNTY-ESTABLISHED 1827
435 W. Walnut St., Monticello, Florida 32344

Benj

Bishop
District 1

Eugene Hall
District 2, Vice-Chair

Hines F. Boyd
District 3

Betsy Barfield
District 4

Stephen Walker
District 5, Chair

amin " Benny"

Regular Session Agenda
May 17, 2016 at the Courthouse Annex 435 W. Walnut St. Monticello, FL 32344

1. 6:00 P.M. - Call to Order, Invocation, Pledge of Allegiance
2. **Public Announcements, Presentations, & Awards**
3. **Consent Agenda**
 - a) **Approval of Agenda**
 - b) **Minutes of March 15, 2016 Regular Session**
 - c) **Minutes of April 5, 2016 Regular Session**
 - d) **Minutes of April 19, 2016 Regular Session**
- 4. **Citizens Request & Input on Non-Agenda Items (3 Minute Limit)**
5. **General Business**
 - a) **Voting Machines Discussion** - Supervisor of Elections Marty Bishop
 - b) **Local Mitigation Strategy Resolution** - Parrish Barwick/Carol Ellerbe
6. **County Coordinator**
7. **Commissioner Discussion Items**
8. **Adjourn**

From the annual "Government in the Sunshine", page 40:

Paragraph C. Each board, commission or agency of this state or of any political subdivision thereof shall include in the notice of any meeting or hearing, if notice of meeting or hearing is required. If such board, commission, or agency, conspicuously on such notice, the advice that if a person decides to appeal any decision made by the board, agency or commission with respect to any decision rendered at such meeting or hearing, he will need a record of the proceedings, and for such purpose be required to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

Kirk Reams

Parrish Barnick

T. Buckingham Bird

Clerk of Courts

County Coordinator

Coun

agAet \o.4r

Resolution #: 2016-07

A RESOLUTION OF THE BOARD OF CITY COUNCIL OF THE CITY OF MONTICELLO, FLORIDA ADOPTING AN UPDATED LOCAL MITIGATION STRATEGY

WHEREAS, the City of Monticello is subject to natural hazards such as floods, hurricanes, tropical storms, sinkholes, wildfires, drought, heat waves, winter storms and tornadoes and these hazards affect the health and property of the citizens of the City of Monticello as well as its economic viability; and

WHEREAS, Jefferson County, which includes the City of Monticello has updated the Local Mitigation Strategy and pre-identification and prioritization of Hazard Mitigation Grant Programs to become a part of the Statewide Hazard Mitigation Strategy; and

WHEREAS, the City of Monticello is a part of the Jefferson County Plan with their pre- identification and prioritization of Hazard Mitigation Grant Program projects to become a part of the county-wide Hazard Mitigation Strategy; and


WHEREAS, Jefferson County had the need for services in order to formulate the Countywide Mitigation Strategy, and did accept offers of the City of Monticello upon agreed upon terms and conditions; and

WHEREAS, the Local Mitigation Strategy Committee compiled a Local Mitigation Strategy document that meets the Federal/State Crosswalk;

NOW THEREFORE, BE IT RESOLVED, that the City Council of Monticello adopt the Local Mitigation Strategy document for the purpose of pre-identification and development of Local Mitigation Strategies and pre-identification and prioritization of Hazard Mitigation Grant Projects that will become a part of the Statewide Hazard Mitigation Strategy.

PASSED AND DULY ADOPTED, in regular session with a quorum present and voting, by the City Council of Monticello, Florida this 7th day of June 2016.


Emily Anderson, City Clerk


Tom Vogelgesang, Mayor



RICK SCOTT
Governor

BRYAN W. KOON
Director

June 2, 2016

Margaret Levings
Local Mitigation Strategy Chair Jefferson County
1255 W. Washington Street
Monticello, FL 32344

DIVISION OF EMERGENCY

Re: Local Hazard Mitigation Plan Approval Notification Dear Ms. Levings:
Congratulations! The enclosed letter constitutes the Federal Emergency Management Agency's (FEMA) formal approval of the Jefferson County Local Mitigation Strategy (LMS) plan for the following participating jurisdictions:

Jefferson County, Unincorporated

The plan has been approved for a period of five (5) years and will expire again on May 31, 2021. -

The mitigation planning unit would like to thank you for all of your hard work. It has been a pleasure working with you and we look forward to serving you in the future. If you have any questions regarding this matter, please contact Alexander Falcone at 850-921- 9063 or Alexander.Falcone@em.myflorida.com.

Respectfully,



Miles E. Anderson, Bureau Chief, Mitigation
State Hazard Mitigation Officer

MENaf

Attachments: FEMA Approval Letter for Jefferson County, Unincorporated

DIVISION HEADQUARTERS Tel: 850-413-9969 • Fax : 850-488-1016
2555 Shumard Oak Boulevard www.FloridaDisaster.org Tallahassee, FL 32399
- 2100

STATE LOGISTICS RESPONSE CENTER
2702 Directors Row
Orlando, FL 32809-5631

**Jefferson County
Local Mitigation Strategy (LMS) Meeting Minutes December 13, 2017**

Welcome - Margaret Levings LMS Chair welcomed the members and thanked them for attending the meeting.

II LMS Committee Members & Guests Introduction - Ms. Levings asked that all members introduce themselves.

Discussion was held regarding the Chair and Vice Chair positions. The group decided to keep Margaret Levings as the Chair and Carol Ellerbe as *Vice Chair*

III LMS Mitigation Project or Action List - the committee members went through each of the projects listed, updates were captured for each project. Some of the projects were rearranged due to the importance of or funding availability.

IV Public Participation - The importance of including and educating the public on mitigation was discussed. Listed below are the activities being conducted by Jefferson County?

- Jefferson County Emergency Management advertises all LMS meetings in the local paper.
- First Responders provide materials through an outreach booth at the Jefferson County Watermelon Festival held every June.
- Emergency Management participates and disseminates disaster safety information at the Open House held at the Beau Turner facility every spring for the youth of Jefferson County.
- Jefferson County Fire Rescue participates in "Show& Tell" quarterly for all schools within the county.
- Jefferson County Fire Rescue utilizes the month of October ... Fire Prevention Month to disseminate fire safety information to the citizens
- Florida Forest Service brings Smokey the Bear to the schools to educate the kids in wildfire safety tips and techniques
- Department of Health conducts an outreach program in the low income housing areas and disseminates information to the residents.
- Jefferson County Emergency Management conducts disaster safety presentations at the Rotary, Chamber and **various** churches.
- Jefferson County disseminates disaster safety information in the "Welcome Packs" that are provided to new residents from the Chamber of Commerce.

Other Business - The School Superintendent brought up using the school as a shelter. Discussion was held regarding the requirement of using the school as the county shelter due to the funding that was used for constructing the building The Superintendent wants to pursue other buildings to continue school operations. It was suggested that she look into other buildings within the county and to seek funding to upgrade such facilities to

Jefferson County EM Stakeholder Advisory Committee Meeting

Sign-In Sheet
December 13, 2017

Name	Organization/Company	E-Mail	Phone
Steve Wingate	City of Monticello	swingate@my.monticello.nc	850-294-8329
Beth Letchworth	Solid Waste	bletchworth@jeffersoncountyfl.gov	342-0184
W.O. Bullock	Building Official	See Mitigation Sheet	850-525-3096
Bill Telefsen	Planning Official	btel@jeffersoncountyfl.gov	850-342-0213
Kevin Huffmaster	J.C.S.O. - 911	huffmasterk@fcjv.net	850-497-0223
Carol Ellerbe	JCSO-DEM	carol Ellerbe@embarqmail.com	850-342-0211
Mark Matthews	Jefferson County Fire Rescue	m.mathews@jeffersoncountyfl.gov	850-342-0182
Margaret Levings	Dott Jefferson	margaret.levings@flhealth.gov	850-508-4414

Name	Organization/Company	E-Mail	Phone
Margaret Levinge	Dott Jefferson	Margaret.Levingeflhealth.gov	850-508-4414
BERNIE JIMENEZ	Private Citizen/AAPOA BOB	cuerva_blanca@hotmail.com	850-212-7169
ROBERT HERSTEIN	" "	RA.HERSTEIN@YANCO.COM	208-994-8540
Kevin Huffmaster	J.C.S.O. - 911	huffmasterk@fcjv.net	850-997-0248
Beth Letchworth	Solid Waste	bletchworth@jeffersoncountycl.gov	342-0184
Steve Wingate	City of Monticello	swingate@mymonticello.net	850-294-8329
Julie Conlay	Jefferson Communities Water System	julieconpearl@hotmail.com	850-519-7099
Todd Schroeder	Florida Forest Service	Todd.Schroeder@fres.frontrange.com	681-5960
Willard D. Bullock	Jefferson Co. Building Dept.	wbullock@jeffersoncountycl.gov	850-528-3096
Mark Matthews	Jefferson County Fire Rescue	mmatthews@jeffersoncountycl.gov	850-342-0182
Bill Tellefsen	J.C. Planning Dept.	btellefsen@jeffersoncountycl.gov	850-342-0223
Kathalie Binder	Library	nbinder@jeffersoncountycl.gov	
Carol Ellerbe	Jeff. Co. E.M.	carol Ellerbe@embarqmail.com	850-342-0211
Marianne Abulu	Jeff County Sch Dist	marianne.abulu@jeffersonschoolsdist.org	850 879-5103

Jefferson County Sheriff's Office
Division of Emergency Management
169 Industrial Park
Monticello, FL 32344
(850) 342-0211
"We're Caring & Preparing"



Carol Ellerbe, Director
December 27, 2017

Florida Division of Emergency Management Attn: Miles Anderson
Mitigation Planning Section 2555 Shumard Oak Boulevard Tallahassee, FL 32399-2100

Re: 27P-22 Jefferson County Annual Local Mitigation Strategy (LMS) Update

As required by the Florida Administrative Code 27P-22.004, we are submitting the following details for the Jefferson County LMS.

A) The current chairman and vice chairman for the LMS Committee/Work Group:

Margaret Levings, Chair
Jefferson County Health Department 1255 W. Washington Street Monticello, FL 32344
(850) 342-0170

Carol Ellerbe, Vice Chair
Jefferson County Emergency Management 169 Industrial Park
Monticello, FL 32344 (850) 342-0211

B) The LMS Committee is comprised of representatives from the following agencies:

- DOH - Jefferson
- Jefferson County Emergency Management City of Monticello
- Jefferson County Library Jefferson County BOCC Jefferson County Sheriff's Office Jefferson County Sheriff's Office
- Jefferson County Property Appraiser
- Jefferson County Building Department

STATE OF FLORIDA
DIVISION OF EMERGENCY MANAGEMENT

RICK SCOTT
Governor

WESLEY MAUL
Interim Director

January 5, 2018

Carole Ellerbe, Director
Jefferson County Emergency Management 169 Industrial Park
Monticello, FL 32344

Re: Florida Administrative Code 27P-22 Compliance Dear Mrs. Ellerbe:
The Florida Division of Emergency Management's Mitigation Planning Unit received your updated 27P-22.004 information for the 2017 calendar year. After looking through the information received, it has been determined that your update is complete and your Local Mitigation Strategy complies with F.A.C. 27P-22.004.

If you have any questions regarding this matter, or if our office can be of any further assistance, please contact our Mitigation Planning Manager, Melissa Schloss, at 850-815- 4504 or Melissa.Schloss@em.myflorida.com.

—
Miles E. Anderson, Bureau Chief, Mitigation
State Hazard Mitigation Officer

MEA/ms

Jefferson County Stakeholders Meeting

February 13, 2018

1. Welcome/Introductions

2. Speaker & Guest Introduction

- Danny Collins Duke
- Margaret Levings Chair of LMS –Update on LMS Project
- Harvey Jones G402 Overview for Executives/Senior Officials 2hr course

3. Adjourn

Next Meeting July 10, 2019

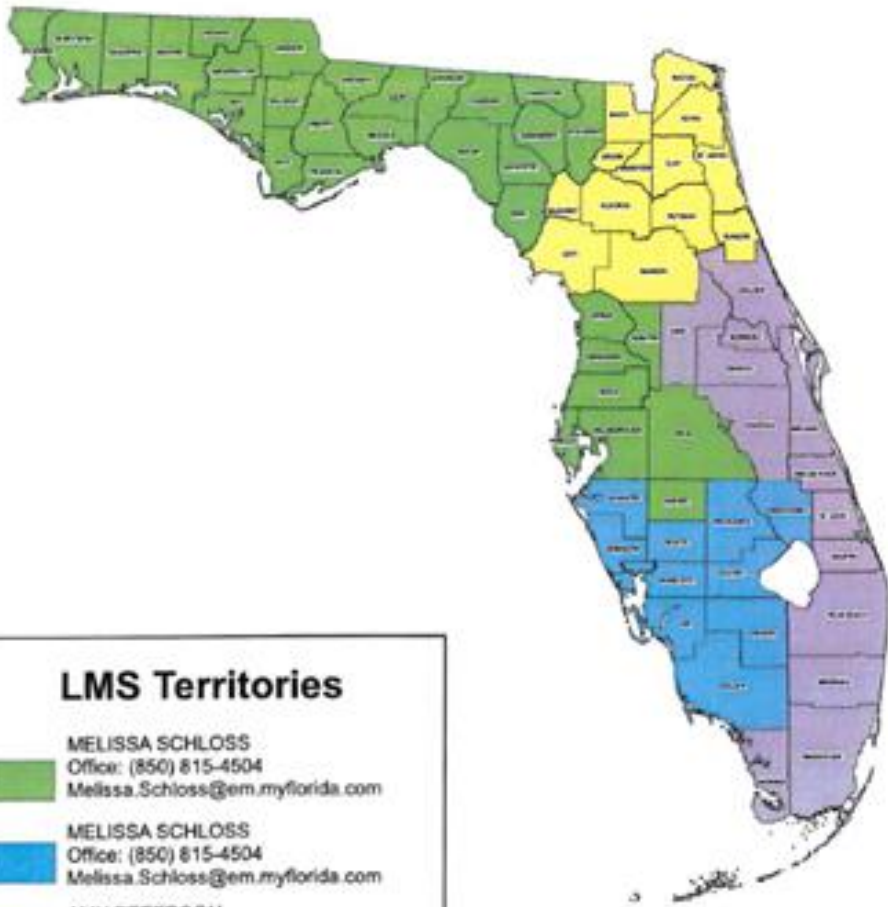


DIVISION HEADQUARTERS Telephone: 850 - 413 -0060 • Fax: 850 - 488 -1016
2555 Shumard Oak Boulevard www.AoridaOlsaster.org Tallahassee, FL 32399 - 2100

**Jefferson County
Local Mitigation Strategy
Committee Meeting
January 18, 2019**

- I Welcome/Introductions
- II Speaker & Guest Introduction
- III Approval of LMS 2018
- IV 2018 Storms
 - a. Review/update project list
 - b. Potential projects for HMGP
- V Open discussion
- VI Adjourn

*** Stakeholders will meet to discuss future training.**



LMS Territories

- MELISSA SCHLOSS
Office: (850) 815-4504
Melissa.Schloss@em.myflorida.com
- MELISSA SCHLOSS
Office: (850) 815-4504
Melissa.Schloss@em.myflorida.com
- AMY PETERSON
Office: (850) 815-4511
Amy.Peterson@em.myflorida.com
- AMY PETERSON
Office: (850) 815-4511
Amy.Peterson@em.myflorida.com

- (d) Eliminate a hazard independently or substantially contribute to the elimination of a hazard where there is reasonable assurance that the project as a whole will be completed; and
- (e) Be cost-effective and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a disaster.

Referencing Authority: 252.33(2)(c) FS. Law Implemented: 252.311, 252.32, 252.33 FS. History: New 7-24-02, Formerly 9G-27.001

27P-22.004 LMS Working Groups.

Each county electing to participate in the HMGP must have a formal LMS Working Group and a current FEMA approved LMS.

(1) Not later than the last working weekday of January of each year the Chairperson of the Board of County Commissioners shall submit to the Division a list of the members of the Working Group and its designated Chairperson and Vice-Chairperson.

(2) The Working Group shall include, at a minimum:

- (a) Representation from various agencies of county government which may include, but not be limited to, planning and zoning, roads, public works and emergency management;
- (b) Representation from all interested municipalities within the county; and
- (c) Representation from interested private organizations, civic organizations, trade and commercial support groups, property owners associations, Native American Tribes or authorized tribal organizations, water management districts, regional planning councils, independent special districts and non-profit organizations.

(3) The county shall submit documentation to show that within the preceding year it has issued a written invitation to each municipality, private organization, civic organization, Native American Tribe or authorized tribal organization, water management district, independent special district and non-profit organization, as applicable, to participate in the LMS working group. This documentation shall accompany the membership list submitted to the Division.

(4) The Working Group shall have the following responsibilities:

- (a) To designate a Chairperson and Vice-Chairperson;
- (b) To develop and revise an LMS as necessary;
- (c) To coordinate all mitigation activities within the County;
- (d) To set an order of priority for local mitigation projects; and
- (e) To submit annual LMS updates to the Division by the last working weekday of each January. Updates shall address, at a minimum:

1. Changes to the hazard assessment;
2. Changes to the project priority list;
3. Changes to the critical facilities list;
4. Changes to the repetitive loss list; and
5. Revisions to any maps.

Referencing Authority: 252.33(2)(c) FS. Law Implemented: 252.311, 252.32, 252.33 FS. History: New 7-24-02, Formerly 9G-27.004, Amended 7-18-13.

27P-22.005 Local Mitigation Strategy.

Each LMS shall have the following components:

(1) A description of the activities of local government and private organizations that promote hazard mitigation; a description of the policies, ordinances or programs that guide those activities; and any deficiencies in the policies, ordinances, and programs with recommendations to correct those deficiencies.

(2) A description of the methods used to engage private sector participation.

(3) A statement of general mitigation goals, with Working Group recommendations for implementing these goals, and estimated dates for implementation.

(4) A description of the procedures used by the Working Group to review the LMS at regular intervals to ensure that it reflects current conditions within the County.

(5) A hazard assessment to include, at the minimum, an evaluation of the vulnerability of structures, infrastructure, special risk populations, environmental resources and the economy to storm surge, high winds, flooding, wildfires and any other hazard to which the community is susceptible.

(6) A statement of procedures used to set the order of priority for projects based on project variables which shall include technical and financial feasibility.

(7) A list of approved projects in order of priority with estimated costs and associated funding sources.

(8) A list of critical facilities that must remain operational during and after a disaster.

(9) A list of repetitive loss structures.

(10) Maps, in Geographical Information System (GIS) format, depicting hazard areas, project locations, critical facilities and repetitive loss structures.

Revolving Authority 252.35(2)(c) FS. Law Implemented 252.311, 252.32, 252.35 FS. History—New 2-24-02, Formerly 9G-22.005.

27P-22.006 County Allocations and Project Funding.

(1) The available HMGP funds shall be allocated to the counties included in the relevant presidential disaster declaration, as defined in Section 252.34(1), F.S., in proportion to each county's share of the federal disaster funding from the Public Assistance, Individual Assistance and Small Business Administration programs as of 90 days after the disaster declaration as reported by FEMA.

(a) Eligible and submitted projects for each county included in the relevant presidential disaster declaration will be funded in order of priority as outlined in the LMS until the allocated funds are exhausted, or all eligible projects are funded, whichever occurs first.

(b) Any allocation remaining after all eligible projects in any declared county are funded shall be reallocated to those counties included in the relevant presidential disaster declaration whose allocation was not sufficient to fund all submitted eligible projects in proportion to each county's share of unfunded projects.

(2) If funds remain after all eligible projects under subsection (1) above have been funded, then they shall be applied to fund eligible projects submitted from counties not included in the relevant presidential disaster declaration on a first-come-first-served basis until all available funds are obligated.

(3) Once a project has been selected for funding, the agreement between the applicant and the Division regarding the terms and conditions of the grant shall be formalized by contract.

Revolving Authority 252.35(2)(c) FS. Law Implemented 252.311, 252.32, 252.35 FS. History—New 2-24-02, Formerly 9G-22.006.

27P-22.007 Application.

(1) The following entities may apply for funding under the program:

(a) State agencies and local governments;

(b) Private non-profit organizations or institutions that own or operate a private non-profit facility as defined in 44 C.F.R., § 206.221(e), hereby incorporated by reference, a copy of which may be obtained by contacting the Division; and

(c) Indian tribes or authorized tribal organizations.

(2) The Division shall notify potential applicants of the availability of HMGP funds by publishing a Notice of Funding Availability in the Florida Administrative Register.

(3) Applicants will have not less than ninety (90) days from the date of notification to submit project applications. The opening and closing dates will be specified in the Notice of Funding Availability. Applications mailed to the Division must be postmarked on or before the final due date. Hand-delivered applications must be stamped in at the Division no later than 5:00 p.m. (Eastern Time) on the final due date.

(4) A letter shall accompany each application from the Chairperson or Vice-Chairperson of the LMS Working Group endorsing the project. The endorsement shall verify that the proposed project does appear in the current LMS and state its priority in relation to other submitted projects. Applications without this letter of endorsement will not be considered.

(5) Applications must be submitted using Form No. HMGP, State of Florida Hazard Mitigation Grant Program Application (Effective Date: June, 2012), which is incorporated into this rule by reference, a copy of which may be obtained by contacting the Division or visiting www.floridadisaster.org.

(6) If the Division receives an incomplete application, the applicant will be notified in writing of the deficiencies. The applicant will have thirty (30) calendar days from the date of the letter to resolve the deficiencies. If the deficiencies are not corrected by the deadline the application will not be considered for funding.

(7) Applications are to be delivered or sent to:

Division of Emergency Management
Bureau of Mitigation
2555 Starnard Oak Boulevard
Tallahassee, Florida 32399
ATTENTION: Hazard Mitigation Grant Program

Rulemaking Authority 252.35(2)(i) FS. Law Implemented 252.311, 252.32, 252.33 FS. History—New 2-24-01; Formerly 9G-22.007, Amended 7-18-13.

DATE: January 18, 2019
TIME: 10:00 AM
LOCATION: EOC Jefferson

Jefferson County LMS Quarterly Meeting Minutes

Meeting called to order.

Meeting called to order by Chairperson Levings with a second from the Sheriff McNeill at 10:00 AM.

Attending

See sign in sheet.

Announcements

- Paula Carroll is the new EOC Director.
- Margaret Levings is the LMS Chairperson.
- Shannon Metty is the Vice Chairperson.
- Next meeting will be in April 2019.

Discussion

- LMS will hold quarterly meetings to address local hazards.
- Group participation facilitated by Paula Carroll regarding the purpose of the LMS committee.
- GAC 27P-22 was reviewed.
- Shannon Metty was voted in as Vice Chair.
- 2017 Jefferson County project list was reviewed.
- Voting took place regarding the priority of projects.
- Request for further comments and/or discussion.

Meeting Adjourned

Chairperson Levings made a motion to adjourn the meeting with a second by Vice Chair Shannon Metty. Meeting adjourned at 12:15 PM.

Jefferson County Stakeholders Meeting
February 13, 2019

1. Welcome/Introductions

2. Speaker & Guest Introduction
 - Brian Bradshaw Region 2 Coordinator for State (MYTEP)
 - Glen Hammer Special Projects Team -Accreditation Program (EMAP)
 - Gloria Sullivan Red Cross Volunteer Program

3. Open Discussion

4. Adjourn

Next Meeting April 8, 2019



Mac McNeill, Sheriff
Jefferson County Sheriff's Office Division of Emergency Management
169 Industrial Park
Monticello, Florida 32344
Phone: (850) 342-0211
Fax: (850) 342 0214

02/13/2019

Stakeholders Meeting Minutes:

In Attendance: Paula Carroll(JCEM), Raymond Clark (COM), Derrick Burrus (JCFR), Melissa Wahnnon(Red Cross), Glen Hammer (FDEM), Brian Bradshaw (FDEM), Kaitlynn Culpepper(Tri- County), Emily Anderson (COM), Gerald Knecht (JCSO), Marie Rigdon (JCSO), Beth Letchworth(JCSWD), Robbie Slack(JCSWD), John Lilly(JC Extension), Major Bullock(JCSO),Mac McNeill (Sheriff) Angela Gray (JCPA), Richard Finlayson (Aucilla CA).

1. Welcome/Introductions
2. Speaker & Guest Introduction

- Brian Bradshaw from FDEM explained to us the MYTEP program. That it is a part of our funding requirement to hold quarterly meetings and fulfil our training responsibilities. He Collected Current County wide training that is planned. Explained what his Goals for training in the community is.

Showed various web sites that will be made available for future training at no cost to the County. The Sheriff stated it might be beneficial to build on what they already have

in place. Gerald had questioned about ICS courses. Those courses can be offered on line or done in the EOC. Derrick Burrus would like to see Stop the Bleed offered. Major had expressed a need for chainsaw safety course. John Lilly would like to have Large Animal class in the future. It was also Expressed they wanted Tri- County & Duke Demonstrations.

- Glen Hammer from FDEM explained the EMAP program and how the accreditation process would be beneficial to the county. It makes sure all your plans are up to date. Coop, LMS, Emergency Operation Plan, Recovery Plan, Evacuation Plan, PIO Plan, Training Plan, Logistics, & Planning. And when all of that is done the County will receive

\$10,000.00 in the budget yearly.

- Melissa Wahnnon from Red Cross is our new County Representative. She explained how we are going to work together to build up our volunteer program to work the shelter during a disaster. This will help offset cost to the County. Last storm the school employees worked the storm which we are grateful. But if we could get volunteers we could depend on it would be step in right direction. Discussed Starting the C.E.R.T

Program back up and working alongside Red Cross for training . She also spoke of her smoke detector program. And how Red Cross would like to get more involved in the community when we have a fire. They offer vouchers to the victim.

3. Open Discussion
4. Adjourn

Next Meeting April 8, 2019

Jefferson County Stakeholders Meeting
February 13, 2011

1. Welcome/Introductions

2. Chair & Guest Introduction

- Danny Collins, Director
- Mr. Mark L. Taylor, Chair of IMS - update on LMS Project
- Harvy-G402, Owner of the Court for Offenders 2 hours, update

3. Adjourn

Next Meeting July 10, 2011

Mac Mc Neill, Sheriff
Jefferson County Sheriff's Office
169 Industrial Park
Monticello, Florida 32170
Phone (850) 342-0714
fax: {850}342 0714



Director of Emergency Management



04/08/2019

Stakeholders Meeting Minutes:

In Attendance: Paula Carroll(JCEM), Derrick Burrus (JCFR), Gerald Knecht (JCSO), Robbie Slack(JCSWD), Major Bullock(JCSO),Mac McNeil! (Sheriff), Richard Finlayson (Aucilla CA),Grant Geyer(FDLE), Harvey Jones (FDLE), Kayla Knecht (JCEM), Margaret Levings (DOH), Shannon Metty(Planning Dept), Danny Collins(Duke Energy), Steve Wingate(City of Monticello), Marianne Arbulu (Superintendent Schools), Betsy Barfield(BOCC)

Welcome/Introductions

1. Speaker & Guest Introduction

- Danny Collins from Duke Energy went over some key point of what happens when the power goes out. This process is beneficial to educate the stakeholders so when asked during an event they are able to pass this information to the community. He also explained Duke's availability during an event and willingness to work alongside the people clearing the trees. All of this information was very helpful. Duke will be holding a safety training on May 22, 2019 at 10 a.m. at 420 Quail Trail Monticello, FL.
- Margaret Levings from DOH is the President of the LMS. She gave our quarterly report. She explained we were not able to work on the communications project that we had chosen at the top of our LMS list. We have moved to the next project which is the Culverts. Tom Kisamore along with a contractor is gathering information for the LMS group to fill out the application. The process is moving along and the money should be released soon.
- Harvey Jones from FDLE taught a course called G-402. It was a pilot program started. Offered to Stakeholders to teach the ICS system as a refresher in a shorter version.

2. Open Discussion

3. Adjourn

Next Meeting July 10, 2019

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Jefferson County Sheriffs Office / Division of Emergency Management

J NAME ORGANIZATION/COMPANY E-MAIL PHONE

✓	Grant Geyer	FDLE	grantgeyer@fdle.state.fl.us	850
✓	Harvey Jones	FDLE	harvey.jones@fdle.state.fl.us	850
✓	Kayla Kinsey	JCEM	Kayla.Kinsey@jcs0-fl.org	850
✓	Debbie Burruss	JCFR	dburruss@jeffersoncountyfl.gov	
✓	Margaret Levinge	DOH Jefferson	Margaret.Levings@flhealth.gov	850
✓	Shannon Mitty	Planning	smitty@jeffersoncountyfl.gov	850
✓	Denny Collier	Dee Energy	denn.collier@dee-energy.com	850
✓	Gerald Knecht	JCSO	Gerald.Knecht@jcs0-fl.org	850
✓	Steve Wingate	City of Monticello	swingate@cityofmonticello.net	850
✓	Robbie Slack	JCSWD	rslack@jeffersoncountyfl.gov	850
✓	Mac McNeill	JCSO	Mac.McNeill@jcs0-fl.org	850
✓	Richard Finlayson	Aucilla Christian	rfinlayson@aucilla.org	850
✓	Marianne Arbut	JCSO	marianne.arbut@jeffersoncountyfl.gov	
✓	Betsy Barfield	BACC		
✓	Paula Carroll	JCEOC	Paula.Carroll	850
✓	Major Bullock	JCSO	Major.Bullock@jcs0-fl.org	850

1. Welcome/Introductions
2. Speaker Introduction
 - Update on Storm
 - Bob Jones C.E.R.T Program Manager
 - Shannon Metty and Margaret LMS Update
3. Open Discussion
4. Adjourn

- Next Meeting September 6, 2019

Mac McNeill, Sheriff
Jefferson County Sheriff's Office
Division of Emergency Management
169 Industrial Park
Monticello, Florida
Phone: (850) 342-2000
Fax: (850) 342-0210



07/10/2019

Stakeholders Meeting Minutes:

In Attendance: Paula Carroll (JCEM), Gerald Knecht (JCSO), Major Bullock (JCSO), Kayla Knecht (JCEM), Margaret Levings (DOH), Shannon Metty (Planning Dept), Raymond Clark (City of Monticello), Marianne Arbulu (Superintendent Schools), Shawn Dugger (Forestry)

1. Welcome/Introductions
2. Speaker Introduction

- Update on Tropical Storm Barry : Explained current conditions. Have Staged Sandbags Distribution at Old Fire Dept. Monitoring situation.
- Bob Jones C.E.R.T Program Manager/Amateur Radio addressed the group on new

C.E.R.T Program and how it would be beneficial to the community. Stated what they have learned and the ideas and direction we would like to move toward. Spoke on the function of the Amateur Radio club and their function in the community. Encouraged involvement. Collected contact information.

- Shawn Dugger spoke on the effect of Pine beetles in the area. And the solution Forestry has to offer. Also spoke about partnership during disaster and availability of equipment if needed. He also conducts training courses ICSI 00, 200,300,400,700,800.
- Spoke about Hurricane Loss Mitigation Program. Total Funds \$194,000. Available for applicants. This money can be used for wind, flood, construction activities onto residential, community, or government.
- Margaret Levings from DOH & Shannon Metty from Planning gave quarterly report. They explained we were in the application process. And how they arrived at this point. It is a long and hard process but well worth the benefits to the county. And encouraged not to let other money slip away but to pursue it! The process is moving along and the money should be released soon.

3. Open Discussion
4. Adjourn

Next Meeting November 6, 2019.

Jefferson County Stakeholders/LMS Meeting
July 10, 2019

1. Welcome/Introductions
2. Speaker Introduction
 - Update on Storm
 - Bob Jones C.E.R.T Program Manager
 - Shannon Metty and Margaret LMS Update
3. Open Discussion
4. Adjourn

- Next Meeting September 6, 2019

STAKE HOLDER/LM

1 -10-19 SIGN-IN SHEET

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Priority	Description of Mitigation Project	Hazards Mitigated	Mitigation Goals Achieved	Funding Source	Jurisdiction (Location)	Agency Responsible for Implementation	Estimated Costs	Status				Timeframe for Completion
								New	Completed	Deferred	If Deferred Why?	
1	Install larger Culverts to prevent Road washouts at vulnerable areas.	Flood, Hurricane/Tropical Storms Heavy Rain, Thunderstorms/Wind	No	HMGP	All Jurisdictions in Jefferson County	Jefferson County Road Department	TBD				There is no current funding for the installation of larger culverts. This will be considered an ongoing project(s) for the county. The EM Director will have a priority list of important culverts to address.	Within a five-year timeframe
1	Purchase a backup generator for sewer lift stations.	All Hazards	No	HMGP	City of Monticello	City of Monticello	TBD				Update - The City of Monticello currently has one backup generator. They will work on getting another one for the city.	Steve Wing a to get Cost for water Tower
3	Obtain a cache of satellite telephone's	All Hazards	No	HMGP	All Jurisdictions in Jefferson County	Jefferson County Emergency Management	\$5,000.00				funding WWW.GROUND CONTROL.COM	
4	Retrofit the Jefferson County Jail	All Hazards	No	HMGP	All Jurisdictions in Jefferson County	Jefferson County Emergency Management	D				This project was submitted in the HMGP application, Some improvements have been made but not completed. Therefore, it is considered an ongoing project.	Within a five-year timeframe



5 Conduct an All Hazards assessment of the County & City owned structures (Jefferson County High School the Annex, the Jefferson County Health Department and the Annex and the Fire Dept.) to determine if retrofitting them would be beneficial. Once completed ... prioritize and separate out to be standalone projects. No HMGP All BOCC & City Jurisdictions in Commission Jefferson County

Mac McNeill, Sheriff
Jefferson County Sheriff's Office Division of Emergency Management
169 Industrial Park Monticello, Florida 32344 Phone:(850)342-0 211
Fax:(850)342-0 214

11/06/2019

Stakeholders Meeting Minutes:

In Attendance: Paula Carroll(JCEM), Sheriff McNeill (JCSO), Major Bullock(JCSO), Kayla Kinsey (JCEM), Margaret Levings (DOH), Shannon Metty (Planning Dept.), Joe Rasmini (City of Monticello), Justin Halpin (Forestry), Julie Conley (Water Management City of Monticello) Robbie Slack (Jefferson County Solid Waste), Beth Letchworth (Jefferson County Solid Waste), Mark Daniels(Cross landings), Susan Edwards (JCSO), Bob Jones (CERT & Amateur Radio) , Shanna Walker (Hagan Funeral Home), Roxanne Spears (Rainbows Edge) , Kash Connell (G-Fast)

1. Welcome/Introductions
 2. Speaker Introduction
- Update on Tropical Storm (Dorian, Nestor) Paula Carroll-Thankful to all the community organizations that jump into action prepare their equipment and facilities for the storm . G-Fast, City of Monticello, Road Dept., Sheriff's Office and others. We have been truly blessed with just one month to go. Even though we have had a couple threaten our area and nothing happen. The Sheriff stated he does not want us to become complacent to always be ready if we ever do fall in the path of a bad storm.
 - Clandestine Lab Tabletop -Kayla Kinsey This will be a table top exercise of a rolling meth lab. We have only had one planning meeting. And the next meeting is scheduled for 11/8/19.
 - Active shooter-Kayla Kinsey -Emergency Management attended a full scale active shooter exercise in Taylor County. Some of the JCSO and Kayla attended Active Shooter table top exercise in Tallahassee. We received a Quote for a tabletop \$16,538.50 at that point we applied for a grant through Big Bend Coalition for \$30,000.00. Putting on one of these events are very costly but we feel it would be beneficial for all organizations involved (EMS, Fire , LEO, EM , School Board, DOH, PD, Air rescue and FHP)
 - Jefferson/Somerset Retrofit Kayla Kinsey- School is to receive \$300,000.00 this will add 1600 space for individuals . Will improve 7 rooms and enclose a room. Will also retrofit the window with hurricane proof glass. Contract has been signed. Will soon proceed with the procurement process.

-
- FEMOR (FL Emergency Mortuary Operations Response) Paula Carroll- Gave a brief overview of what the organization is. If Jefferson County is faced with Mass casualties do we have a place chosen for a Temporary Mortuary? Do we have a place chosen for a Family Assistance Center? These are the two main questions presented today. Mrs. Walker from Hagen Funeral Home stated they can accommodate 30 deceased. There are two other Funeral Homes in the area that were unable to attend. I will find out their capacity. A few good suggestions were made (Goldberg St, and Dog Track). Ask everyone to give it some thought and get back to me at next meeting.
 - Bob Jones C.E.R. T Program Manager/Amateur Radio addressed the group on new C.E.R.T Program and how it would be beneficial to the community. They were deployed for the first time on a fire. Seven went out and the Chief and firefighters were very please. The Sheriff 's may consider using for search and rescue.
 - Reimbursement Hurricane Hermine, Irma, and Michael-Paula Carroll -All funds have been paid out for the three storms. The only thing pending is Management cost. And the Governor and President adjusted 90/10. So there will be some extra funds on the project that were 75%, if they were already 100% they will remain the same.
 - Margaret Levings from Chairman of LMS gave quarterly report . Explained were we are in the application process. It is a long and hard process but well worth the benefits to the county. People on the committee worked very hard. Tremendous credit to Margaret, Shannon and Angela for their dedication and hard work. Talked about if anyone has project that they wanted considered give them to Margaret. We would write them up and present them for a vote of priority order.
3. Open Discussion
 4. Adjourn

Next Meeting March 4 2020.

STAKEHOLDER/LM

11/6/2019

SIGN-IN SHEET

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NO.	NAME	PHONE (CELL)	EMAIL
16	<i>Ryanne Spive</i>	850-878-8461	<i>RyanneSpive@table.com</i>
17	Cash Connell		G Fast Richard.Connell@gfast.com
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Jefferson County Local Mitigation Strategy Stakeholders

Committee Meeting
February 18,2020

Welcome/Introductions

I. Review of LMS 2019

II.

- a. Review/update project list
- b. Potential projects for HMGP

III. Open discussion

- a. Grants
- b. Flood Plans
- c. LMS Applications

IV. A d j o u r n

Next Meeting June 2020

Jefferson County Local Mitigation Strategy Stakeholders

Committee Meeting
June 17, 2020

Welcome/Introductions

I. Review of LMS 2019

II.

- a. Review/update project list
 - b. Potential projects for HMGP

III. Open discussion

- a. Letter about HMPG
- b. Vote on LMS
- c. Adopt Plan

IV. Stakeholders Issues

- A. Community concerns
- B. Mitigation strategies

V. Adjourn

Next Meeting October 2020



Mac McNeill, Sheriff
Jefferson County Sheriff's Office
Division of Emergency Management

169 Industrial Park
Monticello, Florida 32344
Phone: (850) 342-0211
Fax: (850) 342-0214



Jefferson County
Local Mitigation
Strategy
Stakeholders
Committee Meeting
February 18, 2020

Welcome/Introductions

In Attendance: Paula Carroll, Kayla Kinsey, Margaret Levings, Shannon Metty, Raymond Clarke, Derrick Burrus, Kim Allbritton, Howard, Hannah, and Todd Schroeder

I. Review of LMS 2019

Discussed the previous project list, explained how the LMS process worked and who are the people and organizations that make up the LMS working group. What are the responsibilities of the team? The Key points to build LMS: Hazard Analysis, Vulnerability Analysis, Behavior Analysis, Shelter Analysis, and Transportation Analysis. Local Mitigation Strategy plans identify the natural hazards that may affect a single or multiple jurisdictions, such as a town, city or county. Plans assess risks and vulnerabilities, identify actions to reduce losses from those hazards identified, and establish coordinated process to implement the plan using a wide range of public and private investments.

II.

a. Review/update project list

Discussed among the group projects of interest. Evaluated said projects with the information and guidelines listed above. Explained how we prioritize said projects. We will meet again and vote on the order of the projects.

b. Potential projects for HMGP:

Margaret Levings Chairwomen reported on status of current HMPG project. And explained how future projects would be established.

III. Open discussion;

a. Grants

Talked about how the churches in the community can reach out to HUD housing to grant assistance. And explained the difference between historical grants

c. Flood Plans:

Shannon Metty briefly gave us some information on how a flood map informs your community about the local flood risk.

d. LMS Applications

Margaret described how the process work, who qualifies for the funds and how involved the application is.

IV. A d j o u r n

Next Meeting June 17, 2020

JEFFERSON COUNTY LMS

Monday October 19,2020

3:00 P.M.

Agenda

I. Call to Order Margaret Levings, President Shannon Metty, Vice President

II. Introductions

A. Review Damages and Declaration Hurricane Sally Paula Carroll

B. Review Hurricane Michael HMPG Project List Paula Carroll

C. Review Current LMS Projects Margaret Levings

D. Discuss Future Projects or Suggestions Margaret Levings

E. Go over LMS Plan Requirements

Paula Carroll

III. Questions

Plan Next Meeting

COMMUNITY CALENDAR

debbiesnapp@embarqmail.com OR (850) 997-3568

October 14 & 17

Jefferson Arts has its October showing on display in the gallery. "Evolving Structures & Form" will be open to the public from 10 a.m. to 2 p.m. on **Wednesdays and Saturdays**. The Arts is located at 575 W. Washington St., in Monticello. For more information about The Arts and its program schedule, call (850) 997-3311, email *jeffersonartsgallery@gmail.com* or visit *jeffersonartsgallery.com*.

October 16

Every **Friday and Saturday** in October, the Madison County Chamber of Commerce, 182 NW College Loop, Madison Fla., is hosting a Haunted House. Doors open at 7 p.m. and haunts begin at dark. Admission is \$5 per person.

October 16

Friday The Monticello Jefferson County Chamber of Commerce will be hosting a blood drive across from their building, in the Baptist Church parking lot. For early sign-up, visit *donor.oneblood.org/donor/schedules/drive_schedule/976867*.

October 19

The Jefferson County Division of Emergency Management (JCEM) will be holding their Local Mitigation Strategy (LMS) meeting Monday, October 19, at 3 p.m. virtually via zoom. It will mainly be focused on the new project list for the LMS. You must register in advance for this meeting using this link: *us02web.zoom.us/meeting/register/tZEscOmuqD4iHN15qfyz8SlyUD4jpDiOe9H*.

Twice the **THRILLS** and twice the **CHILLS!**
Two haunted attractions taking place this October in Madison County!

HAUNTED HOUSE
Every Friday & Saturday night
in October

7:00 - 9:00



Mac McNeill, Sheriff
Jefferson County Sheriff's Office
Division of Emergency Management

169 Industrial Park
 Monticello, Florida 32344
 Phone: (850) 342-0211



Fax: (850) 342-0214

Jefferson County
Local Mitigation Strategy
Stakeholders Committee Meeting
October 28, 2021

- I. Meeting Minutes:
- II. Welcome/Introductions:
- III. In Attendance: Shannon Metty(chairman), Paula Carroll, Justin Halpin, Daniel Gutierrez, Gene Hall, Rev. Pedro McKelvin, Parrish Barwick(via zoom), Anne Boland, Laura Young, Monica Walker, Derrick Burrus (via zoom), Tracy Gallon(via zoom), Pam Beck(via zoom), Margaret Levings. (Via zoom).
- IV. Review of the Minutes from 6/25/21 Corrections suggested replace all typo's. Gene Hall moved to approve the minutes from 6/25/21. Parrish Barwick seconded. Passed unanimously.
- V. Explained Local Mitigation Strategy how it works and the funding process.
- VI. Report by Chair on HMGP Michael application. County applied for 13 culverts. But ended up being tier 3 (vs. tier 2), so the money was already allocated. Our application was denied. If you reapply this application. Waukeenah highway site 2 GPS Coordinates 30.4894243, -83.9147958 would need to be removed it is a state road. And you cannot apply for Federal Funds for State owned property. Spoke with Kirk Reems state those funds would be available this fall. Expressed how urgent that bridge needs to be repaired. He assured me he would apply for funding. Due to urgency of repairs Upper Cody already had culverts replaced but need headwalls. Boston Highway Site 2 has already started repairs due to urgency. This site would be removed.
- VII. So the sites that would remain and price would need to be quoted and updated are:
 - BOSTON HIGHWAY SITE 1 GPS COORDINATES: 30.5778695, -83.8560578
 - BROCK ROAD GPS COORDINATES:30.5821957,-838521893
 - GUM SWAMP SITE 1 GPS COORDINATES: 30.548950,-83.689524
 - GUM SWAMP SITE 2 GPS COORDINATES: 30.541629,-697600
 - GUM SWAMP SITE 3 GPS COORDINATES: 30.539039,-83.7024
 - SOUTH SALT ROAD GPS COORDINATES30.336009, -83.829833
 - UPPER CODY ROAD GPS COORDINATES: 30.365972, -84.0520548
 - WAUKENAH HIGHWAY SITE 1 GPS COORDINATES: 30.500045,-83.906432
 - WAUKENAH HIGHWAY SITE 1 GPS COORDINATES: 30.4583409,-83.931244
- VIII. Discussed Application for HMGP Sally. Since the amount we were to be awarded was so low we opted not to apply for the funds.
- IX. Reviewed the current items on the project list.
 - POSITION #1 the culvert project was discussed felt it was still a great need and important to prevent hazards in the community. But with the great cost to accomplish we would need to break up the project. It was also brought up that the cost of materials have increased. Parrish Barrwick will get updated quotes for project. This item was voted to stay in POSITION # 1.
 - POSITION #2 Box culvert repair on Marvin Street south of E. Washington. There was no representation for the City of Monticello at the meeting. The committee felt this repair was the most important and wanted to move to position # 1. So we reach out to the City Clerk for permission to apply for the

\$201,284.65 with a match of \$67,094.88 on behalf of the City of Monticello. Unfortunately she did not have the authority to make that decision. They do not have an acting City manager, the mayor was not available, and the new city manager will not arrive until next week. Mrs. Anderson Stated they did not have the match. We then moved this project to POSITION # 3.

- POSITON #3 Landfill Road repair off of Tyson Road was moved to POSITON #2.
- POSITON #4 Hurricane Windows Department of Health That project was moved to POSITION # 7.
- POSITION #5 remained the same Conduct an assessment of the County & City owned structures (Jefferson County High School, the Annex, the Jefferson County Health Department and the Annex and the Fire Dept.) to determine if retrofitting them would be beneficial. Once completed ... prioritize and separate out to be stand-alone projects.
- POSITION #6 This # is corrected to Position # 6 Greater Elizabeth Missionary Baptist this project is being followed up with church to see if they want to keep on list they did not attend meeting. They are now moved to POSITION #6
- POSITION #7 Forestry will move to POSITION # 8
- NEW PROJECT REQUEST : Will be POSITION #4 First Bethlehem Missionary Baptist Association

X. Covid fund were discussed application is due 5:00PM December 21,2021

IX. Next Meeting will be February 24, 2022

X. Meeting Adjournment 10/28/21 4:25 pm

JEFFERSON COUNTY LMS MEETING

10/28/21 3:30PM

SIGN-IN SHEET

NO.	NAME	EMAIL	CELL	ORGANIZATION
1	Paula Carroll	Paula.carroll@jcsd-fl.org	850-408-0908	JCEM
2	Anne Boland	Anne.Boland.EM@gmail.com	850-766-5605	CERT
3	Parrish Barwick (via Zoom)			BOCC
4	Justin Halpin		850 519-3331	FFS
5	Daniel Gutierrez		954-830-3934	FES
6	MONICA WALKER	Auxwalker71@aol.com	850-242-2411	CERT
7	Laura Young	reporter1@ecbpublishing.com	(850) 997-3586	News
8	Jene Hall	ghallboard@yahoo		BoCC
9	Derrick Burrus (via Zoom)			JCFR
10	REV. PEDRO McKEVIN	pedromckelvin@gmail.com	850-345-5275	FBMBA
11	Shannon Metty (via Zoom)			
12	Tracy Gallon (via Zoom)			Big Bend Cares
13	Pam Beck (via Zoom)			DDH
14	Margaret Levings (via Zoom)			DDH



JEFFERSON COUNTY LOCAL MITIGATION STRATEGY

Jefferson County LMS Meeting Agenda

Thursday October 28 ,2021

3:30 PM TO 4:30PM

1. Introduction/Attendance
2. Welcome/Housekeeping
3. Review the Minutes
4. Explain about LMS /funding
5. Discuss Michael application
6. Sally application
7. New business

*Project list

* COVID Funds

4. QUESTIONS

AJOURNMENT

8. Next meeting , February 24,
2022 3:30 pm



The *Monticello News and Jefferson County Journal*, published every Wednesday and Friday in the City of Monticello, County of Jefferson and State of Florida

AFFIDAVIT OF PUBLICATION

Before me, the undersigned authority personally appeared, CARL PAINTER who on oath says that he is the GRAPHIC DESIGNER for the *Monticello News and Jefferson County Journal*, a weekly newspaper, published in Monticello, Jefferson County, Florida; that the attached copy of the advertisement being a:

Notice of Meeting: LMS Stakeholder Meeting Oct. 28

was published in said newspaper in the issue of: October 13, 2021

October 15, 2021

October 20, 2021

October 22, 2021

Affiant further says that the said *Monticello News and Jefferson County Journal* are newspapers published at Monticello, in Jefferson County, Florida, and that the said newspaper has heretofore been continuously published in said Jefferson County, Florida, each week and has been entered as periodical mail matter at the post office in Monticello, in said Jefferson County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Signed by:  _____

Sworn to and subscribed before me this 22nd day of October A.D. 2021



Notary Public



APPENDIX D:

Southern Wildfire Risk Assessment Summary Report for Jefferson
County (2020)

1. Community Background and Existing Situation

Description of Community

Jefferson County encompasses 637 square miles, 598 square miles of land and 39 square miles covered by water. The majority of crop and livestock farming are located in the northern region of the county on sandy-to-sandy clay loam soils. Most of the residential population is located here. Jefferson County is in the northern part of the Florida Peninsula. This region is known as the "Big Bend" for the arc of Gulf of Mexico shoreline where the panhandle meets the peninsula. It is bordered to the north by Georgia; on the west by Leon and Wakulla Counties; on the east by Taylor and Madison Counties; and to the south by the Gulf of Mexico. Located in the St Marks and Aucilla River Basins, wetlands in the county include acres of Lake Miccosukee, over 80,000 acres in the Aucilla Wildlife Management Area, and the St. Marks National Wildlife Refuge.

Community Statistics

Demographics: Serves more than 14,000 residents Total Land Area 637 square miles, 407,680 acres

Wildfire Problem Statement

The rural areas of Jefferson County are heavily forested and wildfires are a common threat. Historical data taken from years 1999-2015 suggest however that there weren't a significant number of acres burned in Jefferson County. During this period 391 fires occurred burning some 2,441.4 acres. Debris burning was highlighted as the most common human cause of wildfire in the county accounting for 68% of the recorded wildfires.

2. Planning Process

The CWPP planning process is a collaborative effort among local, regional, state, and federal government agencies that have a role in protecting the community from wildfire

CWPP Working Group Members

- EOC Paula Carroll, Emergency Management Director 850-342-0211, Paula.Carroll@jcs0-fl.org
- Fire Derrick Burrus, Fire Chief, Jefferson County 850- 342-0182, derrickburrus506@gmail.com
- Fire Lester Lawrence, Fire Chief, Monticello VFD 850-933-8957, monticellovfd@mymonticello.net
- FFS Shawn Duggar Forest Area Supervisor 850-519-3331 Elliot.Duggar@fdacs.gov
- FFS Todd W. Schroeder Wildfire Mitigation Specialist 850- 681-5960 Todd.Schroeder@fdacs.gov
- FWS Greg Titus, Zone Fire Management Officer 850-925-5661, Gregory_Titus@fws.gov

Jefferson County Fire Departments

- ***Jefferson County Fire Rescue, 57 Martin Rd. Monticello, Fl 32344, 850-342-0178***
- ***Monticello Volunteer Fire Department, 1245 N Jefferson St, Monticello, Fl 32344, 850-342-0153***
- ***Waucissa Volunteer Fire Department***
- ***Lloyd Volunteer Fire Department,***
- ***Ashville Volunteer Fire Department***

3. Vulnerability Assessment

Wildfire Vulnerability Overview

The populations most vulnerable to wildfires in Jefferson County are the residents living in Wildland Urban Interface areas (houses within close proximity to heavily wooded areas). These homes have increased the wildfire vulnerability since they are often located in areas that are removed from existing fire stations and water distribution systems, and have even higher fuel loads in close proximity to homes.

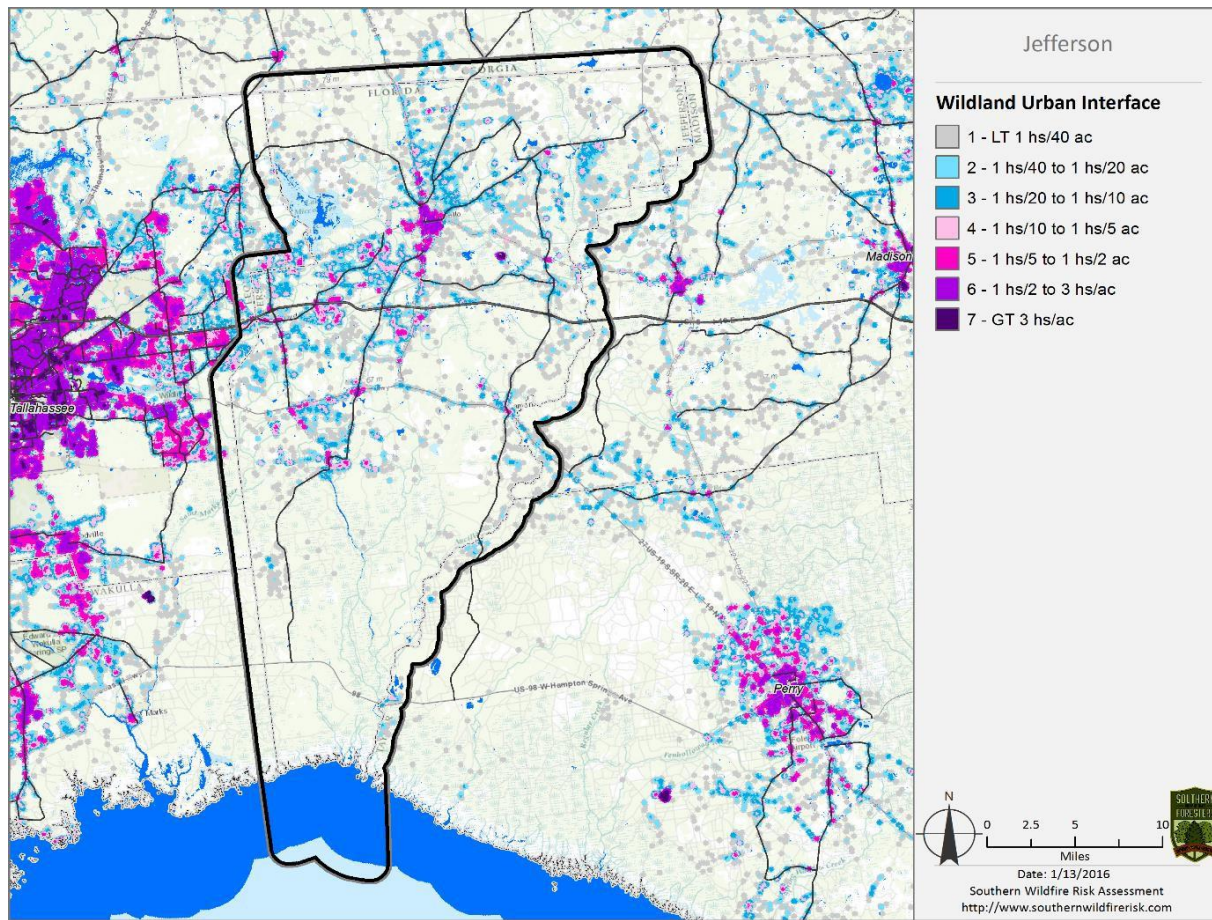
The Local Mitigation Strategy working committee has determined that wildfire is considered a high risk for the county with at least 1 occurrence every year. Based on data collected over 2005-2009 49% of the wildfires were caused by debris burning. The Tallahassee Forestry Center has recently addressed this issue by implementing an educational program called "Stay With It". This program presents homeowners/property owners and the general public with information concerning Florida outdoor burning laws and setback requirements. The program mandates the necessity of the individual staying with a burning debris pile until it is dead out.

The LMS Committee as part of their project description list in 2010 listed plans to work with the Florida Forest Service on completing a Community Wildfire Protection Plan and educating the public of firewise building and landscape design principles. The Florida Forest Service has continued its efforts throughout Jefferson County to inform and educate homeowners/property owners by teaching them firewise principles and techniques that encourage them to take responsibility for reducing their own wildfire risk by being able to participate in defending their homes in the event that emergency responders are unable to give assistance.

Estimated Wildland Urban Interface (WUI) Area

There are 125,182 acres considered to be within the Wildland Urban Interface in Jefferson County. It is estimated that 14,761 people of Jefferson County live within the Wildland Urban Interface. Source of information: Southwrap wildfire risk assessment tool.

Wildland Urban Interface: Locations where structures and human improvements meet and intermingle with undeveloped wildland or vegetative fuels.



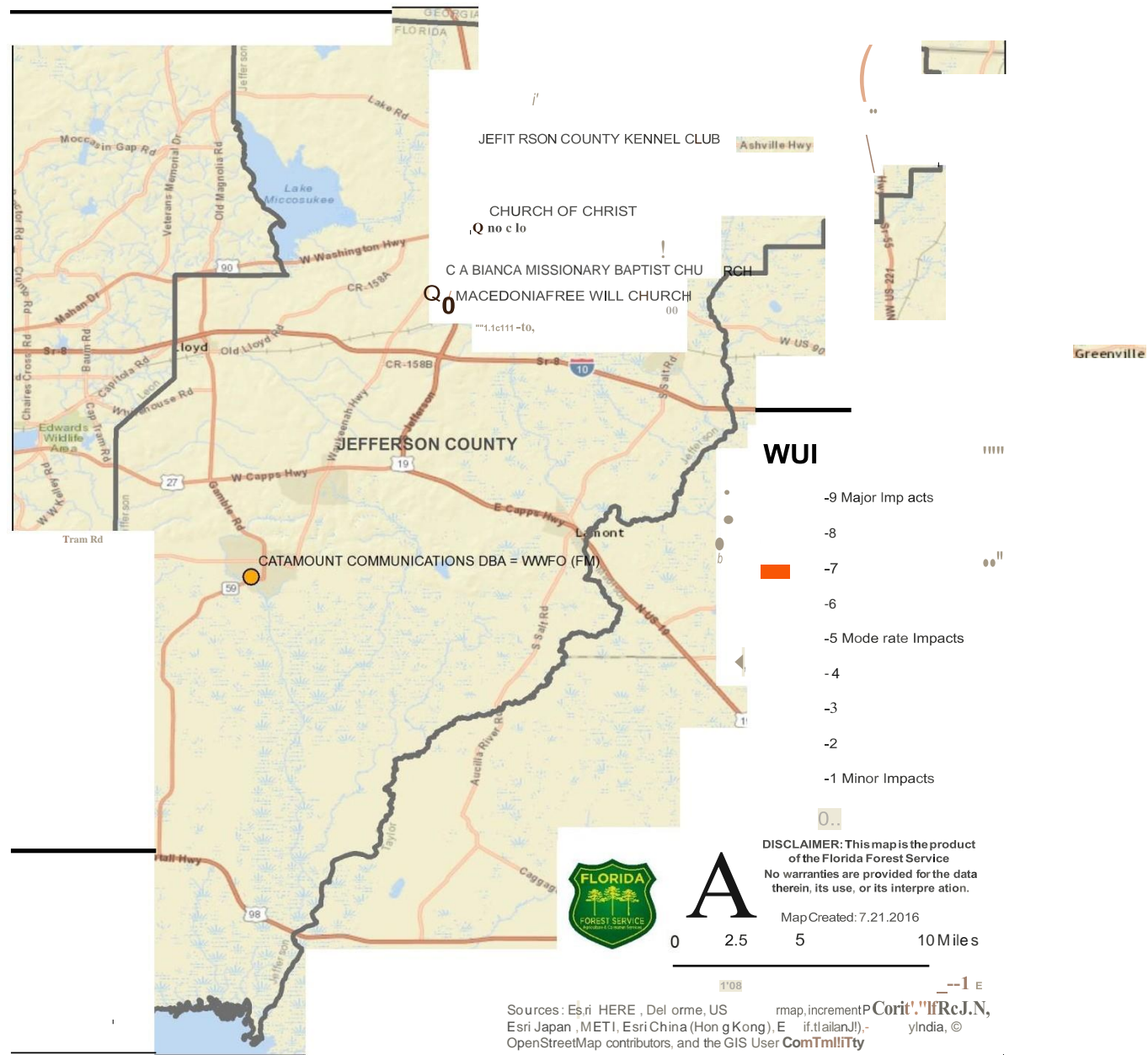
Communities at Risk

Communities at Risk are defined as areas where a significant threat to human life or property exists as a result of a wildland fire disturbance event. The table below highlights community areas within Jefferson County that are considered to be Communities at Risk. Each has been assigned a ranking of low, medium, or high indicating the level of wildfire risk. Several factors are involved in determining these rankings. The Florida Wildfire Risk Assessment developed by the Southern Group of State Foresters in 2006 delineates wildfire risk areas and their levels by observing such things as volatile fuels present, population and design of existing communities. Another tool used to determine the level of risk for individual structures or entire communities is the Wildfire Hazard Assessment Guide for Florida Homeowners which was produced in 2002. This guide divides the hazard assessment process into distinct steps providing a checklist with assigned values used in determining overall wildfire risk.

County	Municipality/Area	Level of Risk
JEFFERSON	Alma	4 Low
JEFFERSON	Ashville	4 Low
JEFFERSON	Aucilla	4 Low
JEFFERSON	Capps	4 Low
JEFFERSON	Casa Bianco	4 Low
JEFFERSON	Cody	4 Medium
JEFFERSON	Dills	4 Low
JEFFERSON	Drifton	4 Low
JEFFERSON	Fanlew	4 Medium
JEFFERSON	Festus	4 Low
JEFFERSON	Fincher	4 Low
JEFFERSON	Jarrott	4 Low
JEFFERSON	Lamont	4 Low
JEFFERSON	Limestone	4 Medium
JEFFERSON	Lloyd	4 Medium
JEFFERSON	Lois	4 Medium
JEFFERSON	Miccosukee	4 Low
JEFFERSON	Monticello	4 Medium
JEFFERSON	Montivilla	4 Medium
JEFFERSON	Malloy Landing	4 Medium
JEFFERSON	Nash	4 Low
JEFFERSON	Nutall Rise	4 Low
JEFFERSON	Thomas City	4 Medium
JEFFERSON	Wacissa	4 Low
JEFFERSON	Waukeenah	4 Low

Critical Facilities Vulnerability

Critical facilities are defined as essential facilities that, if damaged, would present an immediate threat to life, public health, and safety.

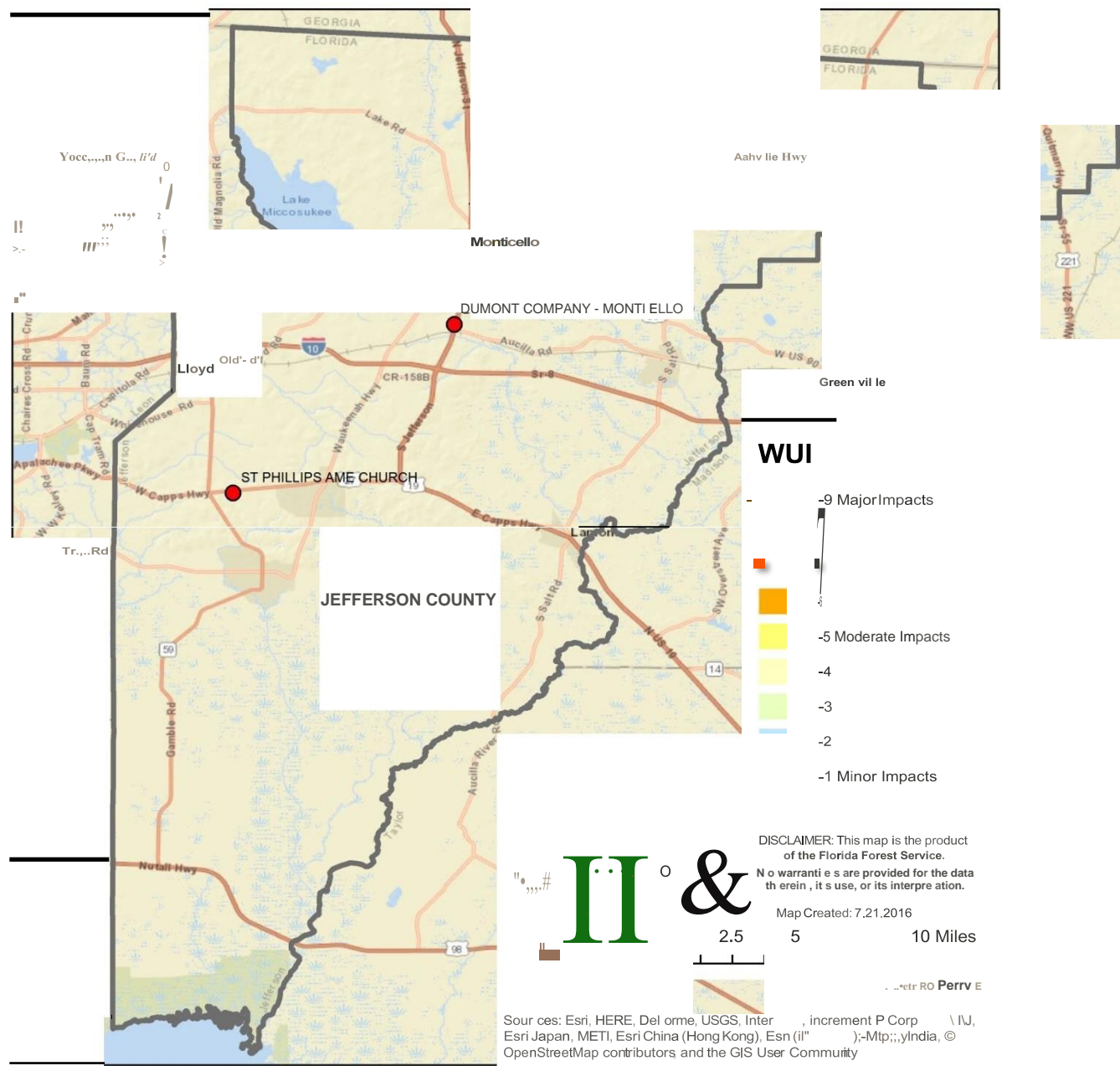


Critical Facilities with WUI Risk Index of -6

Name	Address	City	Zip	Facility Type	USNG	WUI Index
CASA BIANCA MISSIONARY BAPTIST CHURCH	1055 WAUKEENAH HWY	MONTEICELLO	32344	FAITH-BASED FACILITY	17R KP 2265179442	-6
CHURCH OF CHRIST	615 RAILROAD ST	MONTEICELLO	32344	FAITH-BASED FACILITY	17R KP 2513383114	-6
MACEDONIA FREE WILL CHURCH	5 JEFFERSON ST	MONTEICELLO	32344	FAITH-BASED FACILITY	17R KP 2370677782	-6

CATAMOUNTCOMMUNICATI ONSOBA= WWFO (FM)	.5 MI LES SOUTH OF WACISSA	LAMO NT	323 36	RADIO COMMUNICATION STOWER	17R KP 11815 61362	-6
JEFFERSON COUNTY KENN EL CLUB	3079 N JEFFERSONSTR EET	M ON TICELL O	323 44	POINT OF DISTRIBUTION	17R KP 2463687732	-6

JEFFERSON COUNTY FIRE RESCUE SERVICE	57 MARTIN ST	MONTICEU O	32 34 4	EMERGENCY MEDICALSER VICE	17RKP 2444781 116	.7
JEFFERSON COUNTY EMERGENCY OPERATIONS CENTER	169 INDUSTRIAL PARK BLVD	MONTICEU O	32 34 4	EMERGENCY OPERATIONS CENTER	17RKP 2346878 003	.7
JEFFERSON COUNTY FO/L LOYOVFO WACISSA	WAUKEENAH HWY	MONTICEL LO	32 34 4	FIRE STATION	17RKP 2444781 116	.7
JEFFERSON COUNTY SHERIFF'S DEPT. HEADQUARTERS	171 INDUSTRIAL PARK	MONTICEL LO	32 34 4	LAW ENFORCEMEN T	17RKP 2344478 057	.7
JEFFERSON CORRECTIONAL INSTITUTION	11(SO BIG JOERD	MONTICEL LO	32 34 4	LOCALCORRE CTIONAL INSTITUTION	17RKP 3120778 605	.7
JEFFERSON COUNTY JAIL/SHERIFF DEPT	171 INDUSTRIAL PARK	MONTICEU O	32 34 4	LOCALCORRE CTIONALINST ITUTION	17RKP 2344478 057	.7
JEFFERSON COUNTY ELEMENTARY SCHOOL	960 ROCKY BRANCH RD	MONTICEU O	32 34 4	PUBLIC SCHOOL	17RKP 2538383 439	.7
CENTRAL CHURCH OF CHRIST	1480 HAMPTON PL	MONTICEU O	32 34 4	FAITH-BASED FACILITY	17RKP 2428680 657	.7
JEFFERSON CORRECTI ONAL INSTITUTION	11(SO BIG JOERD	MONTICEU O	32 34 4	STATE GOVER NMENT FACILI TY	17RKP 1207786 05	.7
JEFFERSON CORRECTIONAL INSTI TUTION	11(SO BIG JOERD	MONTICEU O	32 34 4	STATE GOVERNMENT FACILITY	17RKP 3120778 605	.7
JEFFERSON CORRECTI ONAL INSTITUTION	11(SO BIG JOERD	MONTICEL LO	32 34 4	STATE GOVER NMENT FACILITY	17RKP 3120778 605	.7
COUNTY OF JEFFERSON	2 MISSOURI	MONTICEU O	32 34 4	RADIO COMMUNICATIONS TOWER	17RKP 2342678 038	.7
FLORIDA, STATE OF	FLORIDA DEPT OF TRANSPORTATION MAINTENANCE	MONTICEU O	32 34 4	RADIO COMMUNICATIONS TOWER	17RKP 2448809 59	.7
MONTICELLO		MONTICEU O	32 34 4	ELECTRIC SUBSTATION	17RKP 6056834 74	.7
GRIFFIN'S PETROLEUM SALES	735 EAST PEARL STREET	MONTICEU O	32 34 4	HAZARDOUS MATERIALS FACILITIES	17RKP 2519282 833	.7
WAUKEENAH FERTILIZER AND FARMS SUPPLY	WAUKEENAH HIGHWAY	MONTICEU O		HAZARDOUS MATERIALS FACILITIES	17RKP 163236	.7



Critical Facilities with WUI Risk Index of -8

Name	Address	City	Zip	Facility Type	USNG	WUI Index
STPHILLIPS AME CHURCH	ST AUGUSTINE RD	MONTICELLO	32344	FAITH-BASED FACILITY	16R GU 87568 67433	-8
DUMONT COMPANY	33 TWO LONG KEEN ROAD	MONTICELLO	32344	HAZARDOUS MATERIALS FACILITIES	17R KP 23602 77847	-8

Predominant Wildland Fuel Types

Fuel model 2: Timber (grass and understory), Fuel Model 4: Mature brush, Fuel Model 7 : Southern rough, Fuel Model 8: Compact timber litter, Fuel Model 9: Hardwood litter.

Wildfire History

The rural areas of Jefferson County are heavily forested and wildfires are common. The population most vulnerable to wildfires is residents living in close proximity to these heavily wooded rural areas. The Florida Forest Service confirms that over the period (1999-2015) 391 wildfires burned in the County encompassing 2,441.4 acres.

Fires Classified by Fire Size 10 year average

Tallahassee Forestry Center 1/1/2009 to 12/31/2019

Class	A 0.1 - 0.2 AC		B 0.3 - 9 AC		C 10 - 99 AC		D 100 - 299 AC		E 300 - 999 AC		F 1000 - 4999 AC		G 5000 & Up	
	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres
All Counties	246	24.5	629	1,408.1	142	3929.9	13	1,921.0	6	2602	1	1620	0	0.0
	0.2%	0.2%	0.6%	12.2%	0.1%	34.2%	0.0%	16.7%	0.0%	22.6%	0.0%	14.1%	0.0%	0.0%
Jefferson	26	2.7	134	275.7	26	598.2	3	380	0	0	0	0.0	0	0.0
	0.1%	0.0%	0.7%	0.2%	0.1%	0.5%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Fires Classified by Fire Size

20 year average

Tallahassee Forestry Center 1/1/1999 to 12/31/2019

Class	A 0.1 - 0.2 AC		B 0.3 - 9 AC		C 10 - 99 AC		D 100 - 299 AC		E 300 - 999 AC		F 1000 - 4999 AC		G 5000 & Up	
	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres	# Fires	# Acres
All Counties	617	67.4	1,289	3,044.8	366	9,676.2	33	5,101.0	13	5,860.0	5	10,627.6	0	0.0
	0.3%	0.2%	0.6%	8.9%	0.2%	28.1%	0.0%	14.8%	0.0%	17%	0.0%	30.9%	0.0%	0.0%
Jefferson	116	13.7	268	682.1	74	1,646.9	5	580	0	0	0	0.0	0	0.0
	0.3%	0.0%	0.6%	0.2%	0.2%	0.6%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Fires by Causes 10 year average

Tallahassee Forestry Center 01/01/2009 through 12/31/2019

Jefferson

Cause	Fires	Percent	Acres	Percent
Campfire	4	2.23	6.5	.52
Children	1	.56	2.0	.16
Debris Burn*	0	0	0	0
Debris Burn--Auth--Broadcast/Acreage	20	11.17	354.7	28.23
Debris Burn--Auth--Piles	7	3.91	75.9	6.04
Debris Burn--Auth--Yard Trash	11	6.15	51.1	4.07
Debris Burn--Nonauth--Broadcast/Acreage	8	4.47	17.5	1.39
Debris Burn--Nonauth--Piles	22	12.29	199.3	15.86
Debris Burn--Nonauth--Yard Trash	30	16.76	118	9.39
Equipment use*	0	0	0	0
Equipment--Agriculture	9	5.03	20.3	1.62
Equipment--Logging	2	1.12	2.5	.20
Equipment--Recreation	1	0.56	3.5	.28

Equipment--Transportation	4	2.23	8.9	.71
Incendiary	5	2.79	74.8	5.95
Lightning	10	5.59	65.4	5.20
Miscellaneous --Breakout	0	0	0	0
Miscellaneous --Electric Fence	0	0	0	0
Miscellaneous --Fireworks	0	0	0	0
Miscellaneous --Power Lines	11	6.15	15.3	1.22
Miscellaneous --Structure	0	0	0	0
Miscellaneous--Other	9	5.03	22.8	1.81
Railroad	1	.56	.5	.04
Smoking	2	1.12	3.0	.24
Unknown	22	12.29	214.6	17.08
Total	179		1,256.6	

Fires by Causes 20 year average
Tallahassee Forestry Center 01/01/1999 through 12/31/2019
Jefferson

Cause	Fires	Percent	Acres	Percent
Campfire	6	1.30	22.5	.77
Children	4	.86	15.5	.53
Debris Burn*	0	0	0	0
Debris Burn--Auth--Broadcast/Acreage	30	6.48	555.4	19.00
Debris Burn--Auth--Piles	12	2.59	110.2	3.77
Debris Burn--Auth--Yard Trash	15	3.24	62.3	2.13
Debris Burn--Nonauth--Broadcast/Acreage	16	3.46	75.7	2.59
Debris Burn--Nonauth--Piles	38	8.21	236.8	8.10
Debris Burn--Nonauth--Yard Trash	47	10.15	143.9	4.92
Equipment use*	0	0	0	0
Equipment--Agriculture	12	2.59	37.8	1.29
Equipment--Logging	4	.86	3.1	.11
Equipment--Recreation	2	.43	5.0	.17
Equipment--Transportation	8	1.73	14.4	.49
Incendiary	31	6.70	314.6	10.76

Lightning	27	5.83	266.5	9.12
Miscellaneous --Breakout	1	.22	2.0	.07
Miscellaneous --Electric Fence	1	.22	.2	.01
Miscellaneous --Fireworks	0	0	0.0	0
Miscellaneous --Power Lines	19	4.10	41.6	1.42
Miscellaneous --Structure	0	0	0	0
Miscellaneous--Other	38	8.21	209.8	7.18
Railroad	2	.43	1.5	.05
Smoking	3	.65	3.0	.10
Unknown	69	14.90	422.7	14.46
Total	463		2,922.7	

4. Local Capacity and Current Wildfire Protection Activities

Organizations and Resources

Local Emergency Management

The County's emergency management services are part of Jefferson County's Sheriff's Office Jefferson County Office of Emergency Management
169 Industrial Park Blvd.

Monticello, FL 32344

(850) 342-0211

Local Disaster Support Agencies

Agency	Address	Phone
Capital Area Chapter Red Cross	1115 Easterwood Dr.	878-6080
Jefferson County Health Department	1255 W. Washington St.	342-0170

Local Fire Services

Jefferson County Fire/Rescue Resources

1,000 gallon Engine w/1,250 gpm pump; 300 gallon Brush truck; 300 gallon Squad; 3,000 gallon Tender w/ 750 gpm pump.

Jefferson County VFD Resources

Monticello VFD

3 – 750 gallon Engines; 500 gallon Brush truck Ashville VFD

1,000 gallon Engine; 2,000 gallon Tender; 1,000 gallon Tender; 300 gallon Brush truck

Lloyd VFD

300 gallon Brush truck, 600 gallon squad, 2,000 gallon tanker pumper Wacissa VFD

750 gallon Engine; 300 Gallon Brush truck

Florida Forest Service Resources

Jefferson		
T-84	ACS28839	IHC7000 Transport
T-85	ACS0T559	650J Dozer
T-88	ACS28856	IHC7000 Transport
T-89	ACS0T411	650H Dozer
T-118	ACS12213	F-550 Engine

Leon		
T-80	ACS28837	IHC7000 Transport
T-81	ACS0T550	650J Dozer
T-82	ACS29555	L7500 Transport
T-83	ACS0T646	650J Dozer
T-86	ACS27360	M8500 Transport
T-87	ACS0T212	550G Dozer
T-108	ACS29565	3500HD Engine

Wakulla		
T-90	ACS31525	M2 106 Transport
T-91	ACS0T310	650G Dozer
T-92	ACS28291	SLT7500 Transport
T-93	ACS0T533	650J Dozer
T-109	ACS31278	F-550 Engine

**U.S. Fish and Wildlife Service
Vehicles/ Heavy Equipment**

USFWS-North Florida National Wildlife Refuge Complex Resources

Equipment	Type	Make	Model	Location	Plow	Blade	Winch	Water/gal	Power Torch
ATV		Honda		FL-SMR			Y	10	Y
ATV		Honda		FL-SMR			Y	10	Y
ATV		Honda		FL-SMR			Y	10	Y
ATV		Honda		FL-SMR			Y	10	
BOAT	Airboat			FL-SMR					
ENGINE	T6	Ford	F-550	FL-SMR			Y	400	
ENGINE	T6	Ford	F-550	FL-SMR			Y	400	
PUMP	Self contained	FPI		FL-SMR				6000 gpm	
ROAD GRADE R		Cat	130-G	FL-SMR					
TRACTOR PLOW	T4	John Deere	650-J	FL-SMR	Y	6 way	Y		
TRACTOR PLOW	T2	Cat	D-6N	FL-SMR	Y	6 way	Y		
UTV		Kubota		FL-SMR			Y	80 g	
MARSH MASTE R				FL-SMR					

Florida Forest Service

FFS Work Stations

Work Station	Address	Phone
Tallahassee Forestry Center	865 Geddie Rd. Tallahassee, Fl 32304	850-681-5960
Jefferson Forestry Station	2334 S Jefferson Hwy Monticello, Fl 32344	850-342-0238

U.S. Fish and Wildlife Service

U.S. Fish and Wildlife Service Work Center

St Marks National Wildlife Refuge, 1255 Lighthouse Rd., St Marks, FL 32355, (850) 925-5661 x30

Community Development

The local mitigation strategy for Jefferson County contains a compilation of mitigation initiatives developed from the early planning efforts of the LMS task force. Suggested wildfire mitigation initiatives:

- 1) Publicize and conduct firewise community workshops to educate homeowners on practices which will reduce the chance of a wildfire resulting in loss of life, property, or resources.
- 2) Identify and prioritize public and private lands in the county that require mechanical understory vegetation reduction. Implement mechanical understory vegetation reduction to prevent the loss of life, property or resources as a result of a wildfire.

There is no reference to development or site plan reviews including wildfire hazard assessment and wildfire mitigation in the process.

Local Mitigation Strategy Working Group

- 1) Establish and implement a public awareness campaign for wildfire prevention featuring Firewise Workshops, performing Florida wildfire hazard risk assessments and other fire prevention programs. This will be an ongoing project with no end date.
- 2) Develop and implement a county-wide CWPP. The Florida Forest Service will be the lead agency in this effort.

Firewise Communities

Currently, there are no certified Firewise Communities in Jefferson County.

Other Organizations and Stakeholders

Local stakeholders in Jefferson County that have a role in fuel management or public education include but are not limited to the following: Jefferson County Commission, The Nature Conservancy, Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission.

Wildland Fire Response Capabilities

County fire stations, Florida Forest Service, U.S. Fish and Wildlife, and the Jefferson County emergency operations center will work together in wildfire response situations. Mutual aid agreements exist between the County, Florida Forest Service, and the U.S. Fish and Wildlife Service already to ensure efficient response time and adequate resources. Cooperatively there are adequate resources in the county to respond to wildfire emergencies.

Wildland Fuel Management Capabilities

Resources that currently conduct local wildland fuel management projects and are planning future wildland fuel management projects include: Florida Forest Service, DEP-Parks Division, Florida Fish and Wildlife Conservation Commission, U.S. Fish and Wildlife Service and private landowners.

Experience Implementing Wildfire Protection Programs

The Florida Forest Service has taken an active role in wildfire mitigation through the implementation of several fuel reduction projects since the significant wildfires of 1998. The FFS dedicated a wildfire mitigation team in each region (4 total). Hazardous fuel reduction to decrease wildfire risk is the sole objective of each of these teams. In addition, there are 15 districts in the state and their personnel work on fuel reduction projects within their areas year round.

Furthermore, there are several private contractors in the Jefferson County area with many years of experience in the removal of hazardous fuels. State and Federal land management agencies have often used these private contractors to help them complete their projects.

5. Goals and Objectives

Goal 1: Protect public health and safety by decreasing wildfire risk in Jefferson County **Objective 1.1:** Use communities at risk list to find areas at significant wildfire risk. **Objective 1.2:** Prioritize these areas in fuel reduction projects and initiate them.

Goal 2: Increase public awareness to wildfire danger and encourage proactive participation in wildfire prevention in Jefferson County.

Objective 2.1: Use of newspaper, radio, and TV media to increase awareness to wildfire danger and risk.

Objective 2.2: Use door hangers, information and brochures to take the Firewise messages to the significant wildfire risk areas in the county.

Objective 2.3: Provide opportunities for people to attend Firewise workshops where first hand learning of Firewise principles can take place.

Goal 3: Develop strong partnerships between all emergency response agencies in Jefferson County.

Objective 3.1: Develop interagency groups; give them Firewise training so they may conduct workshops/ risk assessments for homeowner associations, etc. Everyone has the same understanding and same messages.

Objective 3.2: Share in the distribution of prevention information, and prevention products to significant risk areas.

Goal 4: Improve emergency response times.

Objective 4.1: Share resource lists between emergency response agencies to see what types of equipment each agency has and where it is located in the county.

Objective 4.2: Maintain adequate communication/radio plan so that agencies can listen and talk clearly with one another.

6. Implementation and Plan Maintenance

The CWPP is to be implemented as resources become available to incrementally mitigate community wildfire vulnerability. An action plan has been collaboratively developed by the CWPP Working Group to guide implementation efforts over the next 5 years. An action as listed in this Plan is a strategy, project, or program that reduces wildfire vulnerability in the community. Each action will be assigned a lead agency or organization that will be responsible for implementation. Interagency and public-private partnerships in CWPP implementation are encouraged.

Potential Funding Sources

Project funding and/or local and state agency staff time should be continually sought in order to implement the CWPP Action Plan. The CWPP Working Group should meet annually to discuss budget requests among the partner agencies and determine potential grant opportunities that can be applied for during the year. Descriptions of major federal and state funding sources applicable to wildfire mitigation and response improvements are available in the Florida State Hazard Mitigation Plan in the Wildfire Mitigation Annex.

Plan Maintenance and Evaluation

The CWPP should be updated on an annual basis to ensure information is current, monitor progress of the Plan, and alter Plan content as necessary. Every 5 years the plan should receive a major update in which the vulnerability assessment is updated and the action plan is evaluated for its effectiveness over the past 5 years and its suitability for the next 5 years. A resource for evaluating the plan is the *Community Wildfire Protection Plan Evaluation Guide* prepared by the University of Oregon Resource Innovations Institute for a Sustainable Environment in 2008. The FFS has adapted evaluation questions from this resource to guide Florida communities in assessing the CWPP during a major plan update. The organizational representation from the Working Group should be reconvened, at a minimum, to conduct

the major update. The 5-year update should ideally occur prior to or simultaneously with the 5-year update to the Local Mitigation Strategy. Only the 5-year update requires new plan approval signatures .

7. Action Plan

This section describes implementation strategies or actions that will advance the goals and objectives of this CWPP. The actions are organized by mitigation category: 1) wildland fuel management, 2) community outreach and education, 3) Firewise building retrofit and landscaping, 4) policy and regulation recommendations, and 5) wildland fire response improvements. The following action recommendations are listed in priority order within each mitigation category based upon ability to most significantly decrease wildfire vulnerability in the community.

Wildland Fuel Management

Fuel management projects help reduce the size and intensity of wildland fires and may also decrease the likelihood that a wildfire will start in an area. These actions can increase the safety of people and property while reducing response and suppression costs. Fuel management methods, which can be used alone or in combination with other methods to achieve site-specific benefits, include:

- Prescribed burning;
- Mechanical treatment (e.g., mowing, mulching, disking, fire line plowing, and chopping);
- Chemical treatment (herbicide application);
- Biomass removal (e.g., pine straw harvesting, vegetation or tree thinning, and timber harvesting); and
- Biomass conversion (grazing).

Fuel management treatments designed to reduce wildfire risk are temporary and in most cases reduce the hazard in the treated area for three to five years. Periodic management is required on a regular basis to maintain fuels at an acceptable level to reduce wildfire risk.

Wildland Fuel Management Actions

1. Identify areas in the county that need fuel reduction.
2. Prioritize areas based upon wildfire risk.
3. Implement projects in these areas (funding sources may be needed: FEMA, Homeland Security, WUI, Community Protection grants).
4. Construct a fuel reduction demonstration site showing burned vs. unburned areas. This ideally should be located in a heavily used or traveled area.
5. Work with private agencies towards implementing fuel reduction projects.
6. Work cooperatively with other agencies on prescribed burns.

* These actions will be the shared responsibility of the FFS, the U.S. Fish and Wildlife Service, Jefferson County Fire/Rescue, and Monticello VFD. Fuel reduction work will be primarily performed by the FFS

through funding provided from the WUI Grant and Community Protection grants each year. All fuel reduction work done on St Marks Wildlife Refuge will be performed by the U.S. Fish and Wildlife Service. A list of specific projects will be highlighted in the Mitigation Action Plan written each year by the TFC.

Community Outreach and Education

Outreach and education initiatives are designed to raise awareness and improve community knowledge of wildfire risk and mitigation strategies. A good example of an education program is the Florida Firewise Communities Program. Education and outreach programs can influence attitudes and opinions and lead to behavioral changes, such as homeowners' participation in fuel management strategies.

Community Outreach and Education Actions

1. Provide regular media contact concerning high fire danger and wildfire risk.
2. Distribute Firewise information to high risk areas in the county.
3. Present Firewise workshops in areas of high risk in the county.
4. Provide for Smokey Bear fire prevention programs within the community and local area schools throughout the year.
5. FFS and both fire agencies working cooperatively on events during National Fire Prevention Week in October each year.

* These actions will be primarily the responsibility of the FFS, Jefferson County Fire/Rescue, and Monticello VFD. These actions will be ongoing. During periods of drought and increased wildfire risk the EOC shall be expected to assist in media contact and delivery of information to the residents of the county.

Firewise Building Retrofit and Landscaping

Projects that reduce the ignitability of community facilities and private structures decrease community wildfire vulnerability and provide Firewise models that can assist in community awareness. Grant funding, such as the FEMA Hazard Mitigation Grant Program, can be sought to retrofit public or private buildings in high-risk wildfire zones with Firewise building materials. Other project examples could include public-private partnerships supplying Firewise landscaping materials while volunteer programs could assist in making Firewise improvements to the zone of defensible space.

Firewise Building Retrofit and Landscaping Actions

1. Provide high risk communities with information on Firewise principles, fire resistant building materials and landscaping.
2. Apply for funding when available to implement retrofit projects in the area.
3. Free home safety inspections performed by the Jefferson County Fire/Rescue
4. Free homeowner wildfire risk assessments performed by the FFS

* These actions will be primarily the responsibility of the FFS, Jefferson County Fire/Rescue, and Monticello VFD. These actions will be ongoing. Brochures and information concerning Firewise principles, fire resistant building materials and landscaping can be distributed by all of these agencies.

The EOC can assist in finding grant funding through the FEMA Hazard Mitigation Grant Program to retrofit buildings in high risk zones in the county.

Policy and Regulation Recommendations

Updating local government plans, policies, and regulations is another effective way to advance wildfire mitigation goals. By modifying requirements for development, high risk wildfire zones can be avoided or new development can be proactively designed to reduce wildfire risk and therefore make living and working in these areas safer.

Policy and Regulation Actions

1. Educate local planners about Firewise principles and their use in fuel reduction activity.
2. Update the wildfire section of the LMS as needed.
3. Include CWPP working group members in LMS meetings when they are scheduled. This will serve to keep both groups in the information loop.

* These actions will be primarily the responsibility of the FFS and the EOC. The FFS can make sure local planners are familiar with Firewise materials and principles. The EOC could assist in making this happen. The EM and the FFS may also work together to make sure wildfire risk has a section written into the LMS whenever updates are made.

Wildland Fire Response Improvements

Opportunities to improve wildland fire response capabilities are also critical to reducing the risk of wildfire damage to people and property. Improvements in response capabilities can include advanced training, increasing staff or volunteer fire fighting resources, and developing new procedures or protocols.

Wildland Fire Response Improvement Actions

1. Maintain a list of current wildfire response capabilities in the county. A current list of these can also be found under the Mutual aid/SOP agreement for the county.
2. Maintain an adequate communications radio plan for wildfire response in the county.

* These actions will be primarily the responsibility of the FFS, the U.S. Fish and Wildlife Service, and the two local fire agencies. Current resource lists need to be shared between these agencies on an annual basis or whenever a change of resources available occurs. These agencies must maintain the capability for clear ongoing communication with each other at all times.

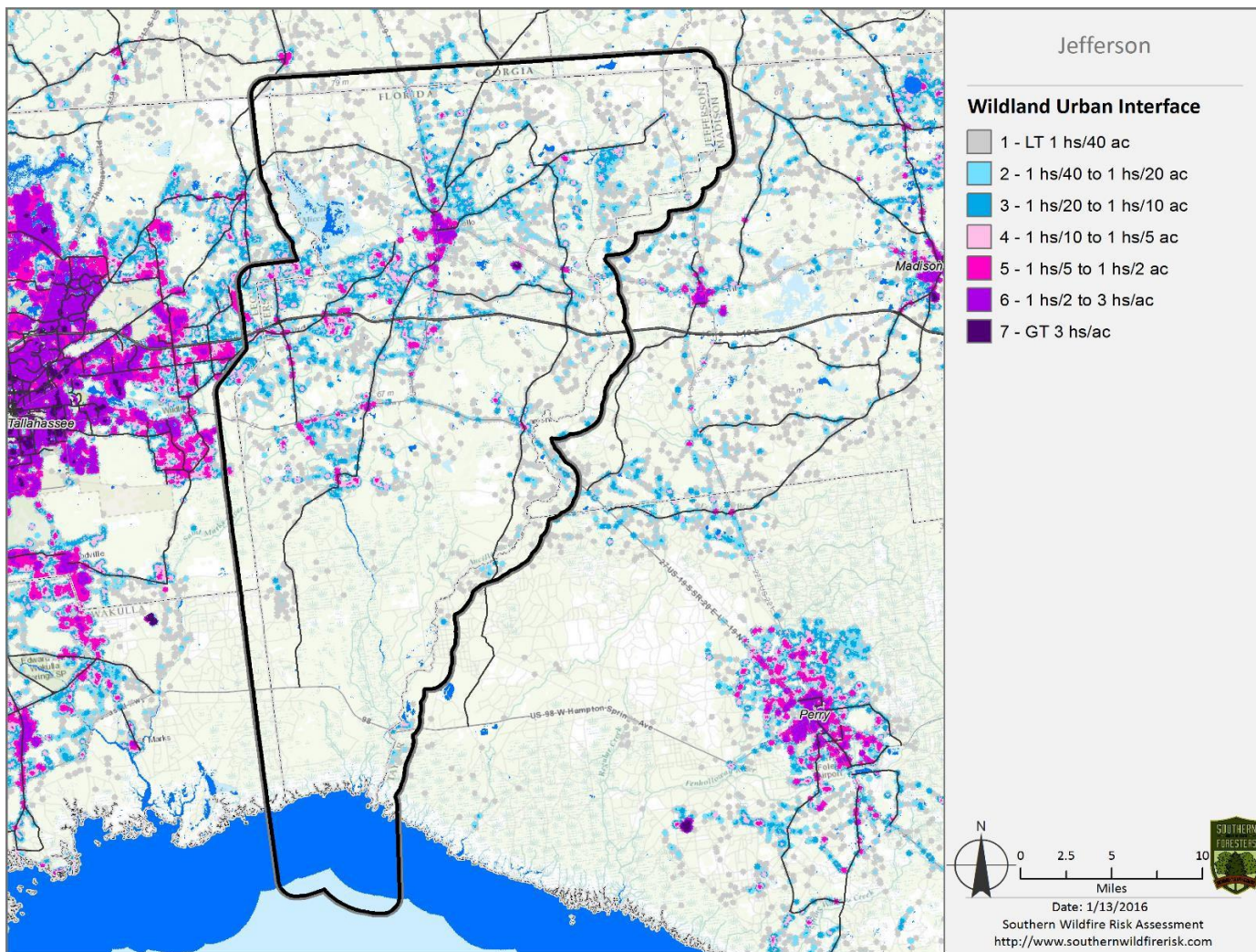
Appendix A: Planning Process Meetings

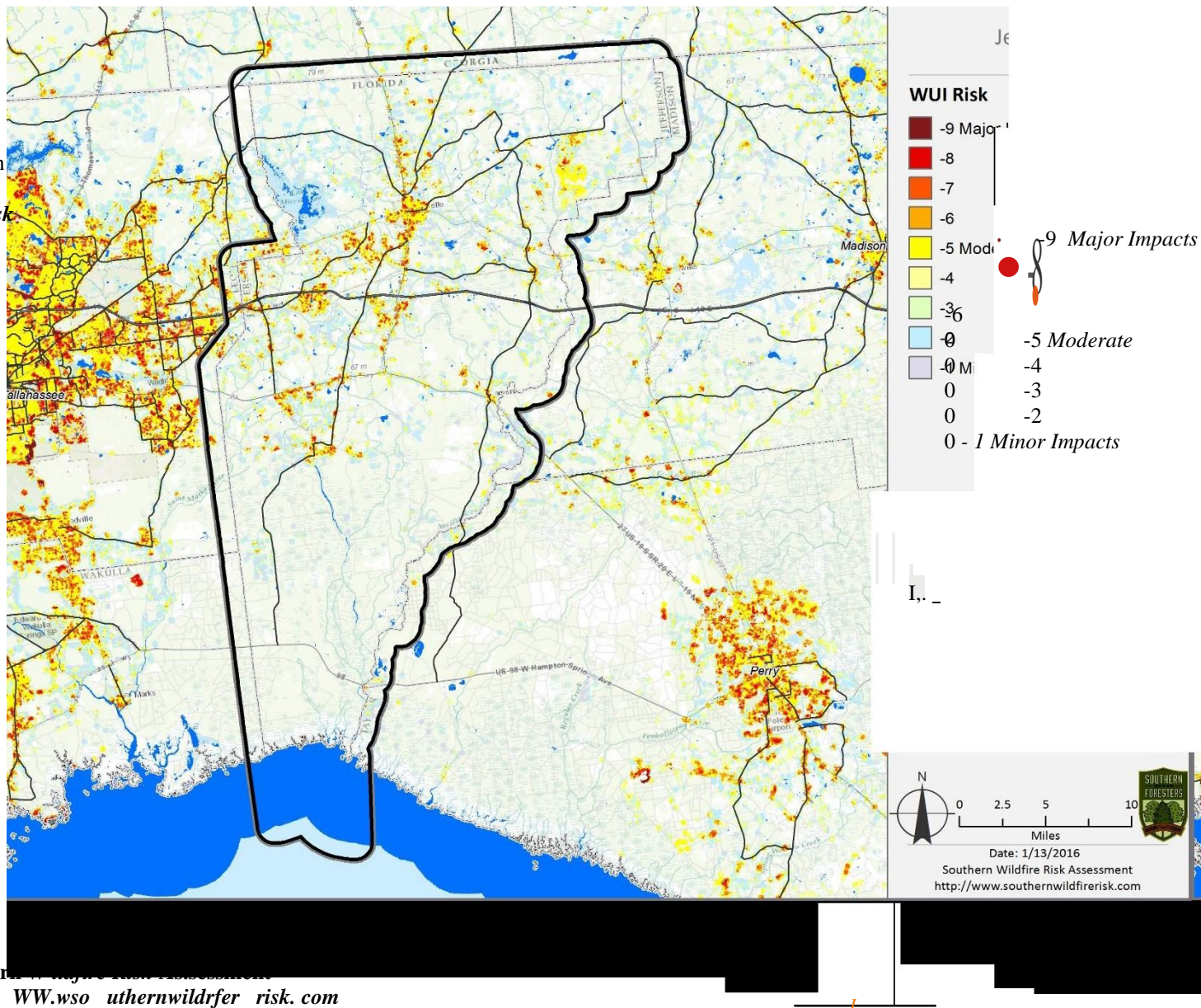
The Florida Forest Service wrote an initial first draft of this plan for Jefferson County . Each member of the working group was given a copy to read and make additions/ deletions to.

On July 22, 2016 the working committee gathered at the Jefferson County Emergency Management facility at 10am to further discuss the plan and make any final changes.

Final changes will be made to the document and Todd Schroeder will take care of gathering signatures to certify the agreement.

Appendix B: Wildfire Vulnerability Assessment Maps provided by the Southwrap wildfire risk assessment tool for Jefferson County





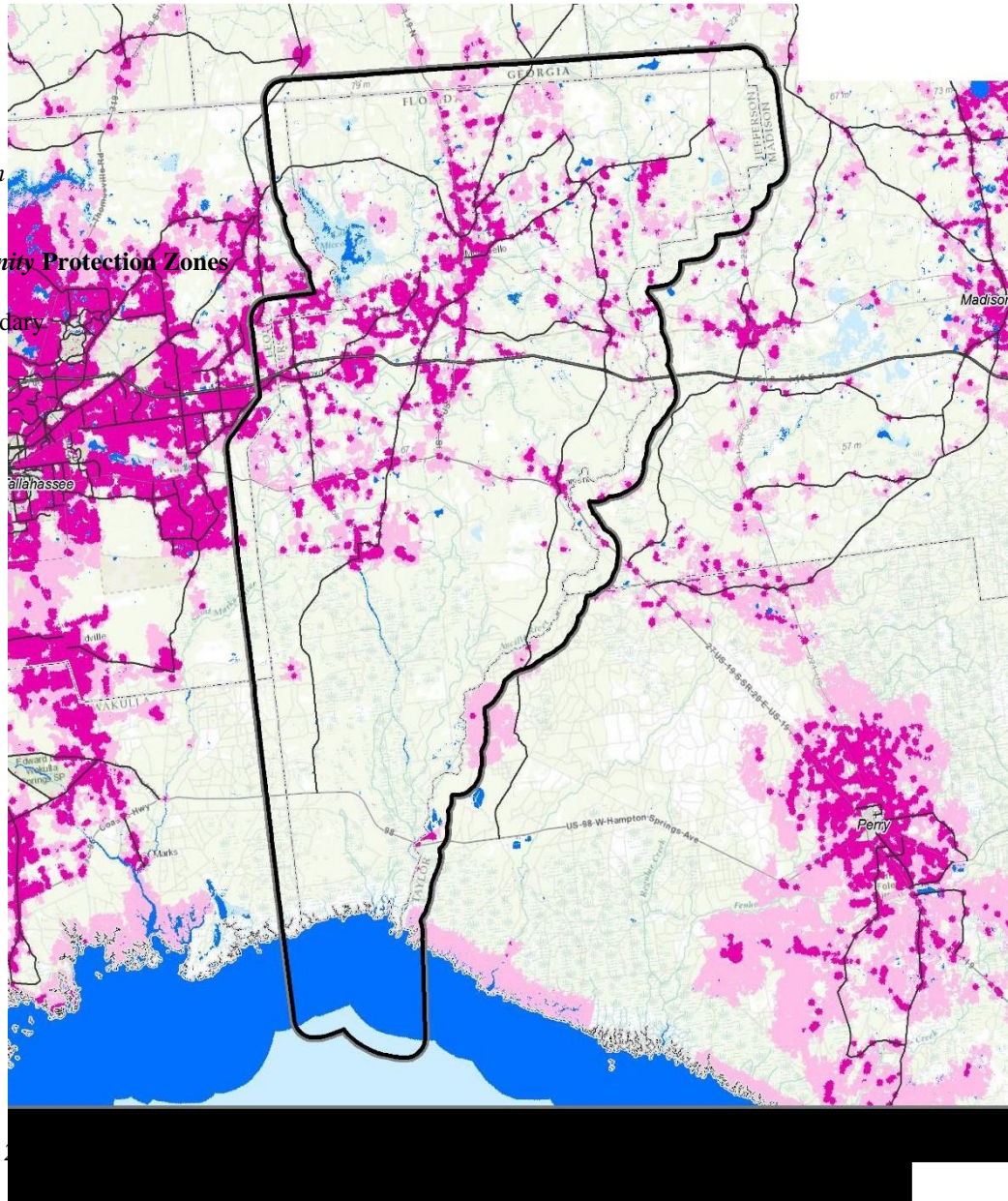
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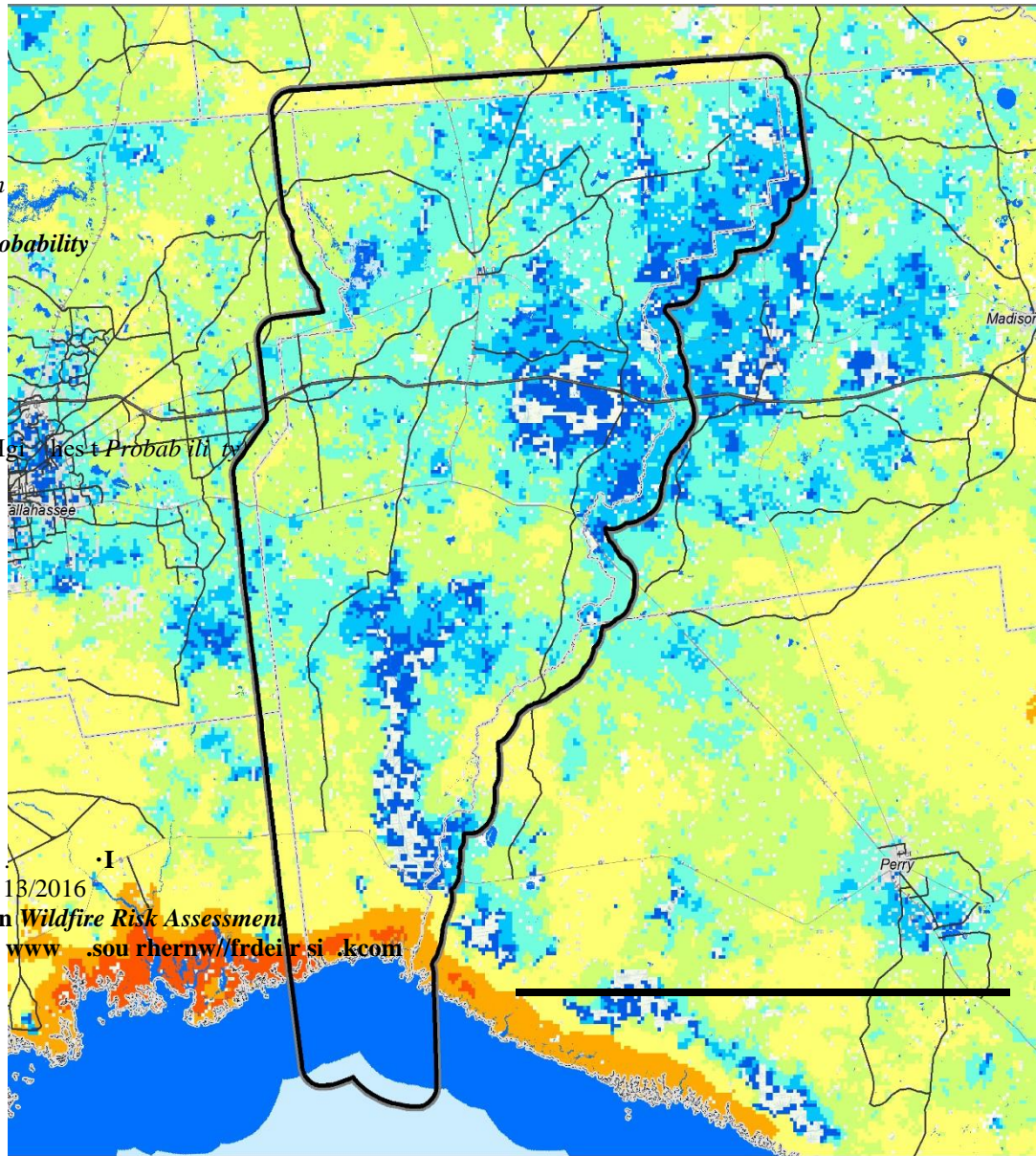
Date: 1/13/2015
 Southern Wild fire Risk Assessment
<http://www.southernwildfire.com>

Jefferson

Burn Probability

- 2
- 0.3
- 0.4
- 0.5
- 0.7
- 0.9
- 10 (Highest Probability)

rw,£,
Date: 1/13/2016
Southern Wildfire Risk Assessment
http://www.southernwildfirerisk.com



Burn Prob

- 1 (Lowest Probability)
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 (Highest Probability)



Appendix C: CWPP Projects

Projects included in this appendix are priorities as described in the Action Plan of the CWPP. These Project Detail Sheets can be used in adding projects to the Local Mitigation Strategy Project List and applying for grant funding. The following information will be provided for each project, as available.

Project Name

Project Type

[i.e. fuel mitigation, education, policy/regulations, or response improvement]

Timeframe for Implementation

Agency Responsible for Implementation

Project Description

Estimated Cost

Potential Funding Source

Target Population Benefited

Estimated Size:

Method for determining:

Partnerships for Implementation

Project Evaluation Criteria

APPENDIX E:

Hurricane Michael HMGP Mitigation Projects Summary Ranking

CBS Item Code	Description	Optional C	Forecast (T/O) Quantity	Unit of M	UNIT PRICE	TOTAL
1	CONCRETE/SLOPE REPAIRS CSX BRIDGE	0400- 999				
	RAILROAD ROW INSURANCE POLICY PREMIUM		1.00	LS	\$4,503.00	\$4,503.00
	GENERAL CONDITIONS/MOBILIZATION/SUPERVISION		1.00	LS	\$3,357.76	\$3,357.76
	MATERIALS					
	FLOWABLE FILL		24.00	CY	\$112.82	\$2,707.68
	FORM SUPPLIES		1.00	LS	\$2,145.00	\$2,145.00
	ASPHALT (PATCHING OVER APP. SLAB)		15.00	TN	\$96.50	\$1,447.50
	GRASSING MATERIALS		1.00	LS	\$431.00	\$431.00
	DEMO, FORM AND POUR FLOW FILL (2 POURS+)					
	F/P LOWER TIER, F/P UPPER TIER TO SLAB (L&E)		20.00	HR	\$209.68	\$4,193.60
	BREAK OUT UPPER CONCRETE					
	DEMO PATCHED GUARDRAIL POUR/POSTS (L&E)		10.00	HR	\$209.68	\$2,096.80
	TRUCK HAUL OFF		9.00	HR	\$65.00	\$585.00
	DRESS DIRT AND GRASS(PIN MAT)					
	SEED & PIN EROSION MAT ON SLOPE (L&E)		5.00	HR	\$209.68	\$1,048.40
	PLACE SHLDR & GUTTER ASPHALT					
	ASPHALT MATERIAL & HAUL		15.00	TN	\$96.50	\$1,447.50
	PLACE ASPHALT TO NEW GUTTER GRADE (L&E)		10.00	HR	\$209.68	\$2,096.80
	CORE /FLOW FILL OTHER 3 SLAB CORNERS					
	FLOW FILL MATERIAL/FORM SUPPLY		8.00	CY	\$112.82	\$902.56
	CURE-CUT ACCESS HOLES & FORMING (L&E)		10.00	HR	\$209.68	\$2,096.80
	PLACE FLOW FILL AND PATCH ACCESS (L&E)		5.00	HR	\$209.68	\$1,048.40
	MOT SET-UP FOR SITE (1-LANE CONFIG)					
	POST-MTD SIGNS, TEMP STOP BARS, RPM'S		1.00	LS	\$2,100.00	\$2,100.00
	TEMPORARY SIGNALS (FOR 1-LANE, 2-WAY)		14.00	ED	\$168.00	\$2,352.00
	VMS BOARDS		14.00	ED	\$25.00	\$350.00
	FLAGMAN LANE CLOSURES		3.00	EA	\$1,100.00	\$3,300.00
	GUARDRAIL AND ANCHOR RESET					
	REMOVE GUARDRAIL (SUBCONTRACT)		825.00	LF	\$2.00	\$1,650.00
	GUARDRAIL-BRIDGE ANCHORAGE TIE (MODIFY)		1.00	EA	\$3,250.00	\$3,250.00
	ROADWAY GUARDRAIL		825.00	LF	\$18.00	\$14,850.00
	GUARDRAIL - FLARED END ANCHORAGE		1.00	EA	\$2,800.00	\$2,800.00
	MISC ASPHALT PAD (835')					
	ASPHALT MATERIALS & HAUL		35.00	TN	\$96.50	\$3,377.50
	HAND INSTALLATION - AROUND POSTS (L&E)		19.00	HR	\$169.18	\$3,214.42

SUBTOTAL COST LABOR, EQUIP, MATERIALS	\$67,351.72
OVERHEAD COST (8%)	\$5,388.14
CONTRACTOR MARK-UP (15%)	\$10,102.76
TOTAL	\$82,842.62

2	MILE 2.8 WAUKEENAH HWY - REPLACE 30" CD AND HEADWALLS	0430- WAUK - 30"				
	GENERAL CONDITIONS/MOBILIZATION/SUPERVISION		1.00	LS	\$4,795.00	\$4,795.00
	MOT SET UP - MAINTAIN					
	POST SIGN SET-UP		1.00	LS	1,250.00	\$1,250.00
	LO-PRO WALL OR SAFE SLOPE OVERNIGHT		8.00	HR	347.81	\$2,782.48
	VMS BOARDS		16.00	ED	25.00	\$400.00
	CLEAR & GRUB					
	TREE CLEARING/CD & TRUCK DISPOSAL		17.35	HR	416.81	\$7,231.65
	MATERIALS					
	30" A-2000 (PVC) & JOINT WRAP MATERIALS		60.00	LF	44.52	\$2,671.20
	BEDDING MATERIAL(CRUSHED STONE) & HAUL		30.00	TN	35.00	\$1,050.00
	HEADWALL CONCRETE MATLS		7.82	CY	145.14	\$1,134.99
	REINFORCING STEEL		225.00	LB	0.57	\$128.25
	CONSUMABLES/FORM SUPPLIES/FILL MATL		1.00	LS	1,795.59	\$1,795.59
	DETOUR INSTALL/REMOVE					
	PLOW OUT & 4" SP BASE (5' WIDE) - BOTH SHOULDERS		12.00	HR	234.65	\$2,815.80
	ASPHALT BASE 4" THICK (MATLS & HAUL)		42.00	TN	96.50	\$4,053.00
	DEMO AND RE-GRADE SHOULDER		10.00	HR	234.65	\$2,346.50
	CUT ROAD/DEMO PIPE/NEW PIPE/BACKFILL					
	EXCAVATE/DEMO 1ST SIDE, PLACE PIPE & BACKFILL		20.00	HR	347.81	\$6,956.20
	EXCAVATE/DEMO 2ND SIDE, PLACE PIPE & BACKFILL		20.00	HR	347.81	\$6,956.20
	BASE & PAVE BACK TO ORIGINAL (3" SP)					
	ASPHALT MATL AND HAUL		26.00	TN	96.50	\$2,509.00
	LAYDOWN OF BASE LIFT (L&E) - 1.5"		10.00	HR	347.81	\$3,478.10
	PAVER CAP ON TOP (L&E) - 1.5"		8.00	HR	635.80	\$5,086.40
	F/P/S HEADWALLS					
	F/P/S & BACKFILL		41.00	HR	347.81	\$14,260.21
	SOD SHOULDER AREA					
	PLACE SOD (BAHIA/BERMUDA)		830.00	SY	3.25	\$2,697.50

SUBTOTAL COST LABOR, EQUIP, MATERIALS	\$74,398.08
OVERHEAD COST (8%)	\$5,951.85
CONTRACTOR MARK-UP (15%)	\$11,159.71
TOTAL	\$91,509.64

3	WAUKEENAH HWY 5.8 M.P. DBLE 60" HEADWALLS AND GUARDRAIL 0400- 5.8 - WAUK 2X60 IN HEADWALLS					
	GENERAL CONDITIONS/MOBILIZATION/SUPERVISION	1.00	LS	\$9,381.00	\$9,381.00	
	MOT SET UP - MAINTAIN					
	POST MTD SIGN SET-UP, TEMP STOP BARS, RPM'S	1.00	LS	2,105.00	\$2,105.00	
	LO-PROFILE BARRIER WALL	108.00	LF	95.00	\$10,260.00	
	VMS BOARDS	30.00	ED	25.00	\$750.00	
	TEMP TRAFFIC SIGNALS (FOR 1-LANE, 2-WAY)	21.00	ED	168.00	\$3,528.00	
	CLEAR & GRUB & EXCAVATE					
	SITE CLEARING & DISPOSAL/EXCAVATION	23.50	HR	416.81	\$9,795.04	
	MATERIALS (DBLE 60" HEADWALL - FDOT INDEX 430)					
	60" CD PIPE (CLEAN & PREP ENDS)	6.00	HR	347.81	\$2,086.86	
	BEDDING STONE	30.00	TN	35.00	\$1,050.00	
	HEADWALL REDI-MIX MATLS	30.36	CY	145.14	\$4,406.45	
	REINFORCING STEEL	1,650.00	LB	0.57	\$940.50	
	CONSUMABLES/FILL	1.00	LS	5,485.19	\$5,485.19	
	DETOUR INSTALL/REMOVE					
	PLOW OUT & 4" SP BASE (5' WIDE) - BOTH SHOULDERS	14.00	HR	234.65	\$3,285.10	
	ASPHALT BASE 4" THICK (MATLS & HAUL)	42.00	TN	96.50	\$4,053.00	
	DEMO AND RE-GRADE SHOULDER	12.50	HR	234.65	\$2,933.13	
	F/P/S HEADWALLS					
	F/P/S & BACKFILL	212.00	HR	347.81	\$73,735.72	
	SHEET PILE AND DEWATER WORK AREA					
	SHEET PILE MATERIALS	1,460.00	SF	8.29	\$12,103.40	
	SHEETING MATERIAL TRANSPORTATION	1.00	LS	750.00	\$750.00	
	UNLOAD AND INSTALL (> cz) 15' SHEETS (L&E)	20.00	HR	347.81	\$6,956.20	
	PREP & DEWATER ACTIVITIES (L&E)	16.00	HR	347.81	\$5,564.96	
	EXTRACT SHEETS AND RELOAD	15.00	HR	347.81	\$5,217.15	
	GUARDRAIL AND MISC PAD					
	GUARDRAIL INSTALL	225.00	LF	20.55	\$4,623.75	
	END ANCHOR INSTALL	4.00	EA	2,900.00	\$11,600.00	
	MISC ASPHALT PAD - MATERIALS & HAUL	20.00	TN	96.50	\$1,930.00	
	MISC ASPHALT - L&E GRADE AND INSTALL	10.00	HR	304.31	\$3,043.10	
	SOD SHOULDERS					
	PLACE SOD (BAHIA/BERMUDA)	830.00	SY	3.25	\$2,697.50	

SUBTOTAL COST LABOR, EQUIP, MATERIALS	\$188,281.04
OVERHEAD COST (8%)	\$15,062.48
CONTRACTOR MARK-UP (15%)	\$28,242.16
TOTAL	\$231,585.68

4 WAUKEENAH HWY 7.6 M.P. TRIPLE 72" HEADWALLS AND GUARDRA 0400-7.6 - WAUK 3X72" HEADWALLS AND GUARDRAIL						
GENERAL CONDITIONS/MOBILIZATION/SUPERVISION		1.00	LS	\$10,905.00	\$10,905.00	
MOT SET UP - MAINTAIN						
POST MTD SIGN SET-UP, TEMP STOP BARS, RPM'S		1.00	LS	2,245.00	\$2,245.00	
LO-PROFILE BARRIER WALL		120.00	LF	95.00	\$11,400.00	
VMS BOARDS		30.00	ED	27.00	\$810.00	
TEMP TRAFFIC SIGNALS (FOR 1-LANE, 2-WAY)		24.00	ED	168.00	\$4,032.00	
CLEAR & GRUB & EXCAVATE						
CLEARING & DISPOSAL/EXCAVATION		20.00	HR	416.81	\$8,336.20	
MATERIALS - HEADWALL CONSTRUCTION						
72" EXISTING PIPE (CLEAN & PREP ENDS)		6.00	HR	347.81	\$2,086.86	
HEADWALL CONCRETE MATLS		50.60	CY	145.13	\$7,343.58	
REINFORCING STEEL (FDOT STANDARD 430)		3,227.00	LB	0.57	\$1,839.39	
CONSUMABLES/FORM SUPPLIES/SELECT FILL		1.00	LS	5,485.30	\$5,485.30	
DETOUR INSTALL/REMOVE						
PLOW OUT & 4" SP BASE (5' WIDE) - BOTH SHOULDERS		10.00	HR	234.65	\$2,346.50	
ASPHALT BASE 4" THICK (MATLS & HAUL)		42.00	TN	96.50	\$4,053.00	
DEMO AND RE-GRADE SHOULDER		12.50	HR	234.65	\$2,933.13	
F/P/S HEADWALLS						
F/P/S & BACKFILL		240.00	HR	347.81	\$83,474.40	
SHEET PILE AND DEWATER WORK AREA						
SHEET PILE MATERIALS		1,592.00	SF	8.29	\$13,197.68	
SHEETING MATERIAL TRANSPORTATION		1.00	LS	1,200.00	\$1,200.00	
UNLOAD AND INSTALL (> c2) 15' SHEETS (L&E)		20.00	HR	347.81	\$6,956.20	
SET PUMP AND DEWATER (L&E)		10.00	HR	347.81	\$3,478.10	
EXTRACT SHEETS AND RELOAD		15.00	HR	347.81	\$5,217.15	
GUARDRAIL AND PAD						
ROADWAY GUARDRAIL INSTALL		275.00	LF	20.55	\$5,651.25	
PARALLEL END ANCHOR INSTALL		4.00	EA	2,900.00	\$11,600.00	
MISC ASPHALT PAD - MATERIALS & HAUL		20.00	TN	96.50	\$1,930.00	
MISC ASPHALT - L&E GRADE AND INSTALL		10.00	HR	304.31	\$3,043.10	
RE-GRASS DISTURBED SHOULDERS						
PLACE SOD (BAHIA/BERMUDA)		830.00	SY	3.25	\$2,697.50	

SUBTOTAL LABOR, EQUIP, MATERIALS	\$202,261.33
OVERHEAD COST (8%)	\$16,180.91
CONTRACTOR MARK-UP (15%)	\$30,339.20
TOTAL	\$248,781.44

5	BOSTON HWY 1.5 M.P. REPLACE 2 X 72 ARCH" CULV PIPE & H-W	0430- 1.5 M.P. BOSTON				
	GENERAL CONDITIONS/MOBILIZATION/SUPERVISION		1.00	LS	\$5,701.00	\$5,701.00
	MOT SET UP - MAINTAIN					
	POST SIGN SET-UP, TEMP STOP BARS, MISC MOT		1.00	LS	1,750.00	\$1,750.00
	LO-PRO WALL / SAFE SLOPE		96.00	LS	95.00	\$9,120.00
	VMS BOARDS		30.00	ED	25.00	\$750.00
	CLEAR & GRUB					
	TREE CLEARING/GRADING & DISPOSAL		10.00	LS	416.81	\$4,168.10
	MATERIALS (USE 4 ea X 42")					
	42" SRASP PIPE, JOINT WRAP		288.00	LF	66.86	\$19,255.68
	BEDDING STONE AND HAUL		58.00	TN	35.00	\$2,030.00
	INDEX 250 HEADWALL CONCRETE		27.10	LS	145.13	\$3,933.02
	REINFORCING STEEL		450.00	LB	0.57	\$256.50
	CONSUMABLES/FILL		1.00	LS	4,926.20	\$4,926.20
	DETOUR INSTALL/REMOVE					
	PLOW OUT & 4" SP BASE (5' WIDE) - BOTH SHOULDERS		10.00	HR	234.65	\$2,346.50
	ASPHALT BASE 4" THICK (MATLS & HAUL)		42.00	TN	96.50	\$4,053.00
	DEMO AND RE-GRADE SHOULDER		12.50	HR	234.65	\$2,933.13
	CUT ROAD/DEMO PIPE/NEW PIPE/BACKFILL					
	EXCAVATE/DEMO 1ST SIDE, PLACE PIPE & BACKFILL		30.00	HR	347.81	\$10,434.30
	EXCAVATE/DEMO 2ND SIDE, PLACE PIPE & BACKFILL		30.00	LS	347.81	\$10,434.30
	BASE & PAVE BACK TO ORIGINAL (3" SP)					
	ASPHALT MATL AND HAUL		36.00	TN	96.50	\$3,474.00
	LAYDOWN OF BASE LIFT (L&E) - 1.5"		10.00	HR	347.81	\$3,478.10
	PAVER CAP ON TOP (L&E) - 1.5"		8.00	HR	426.00	\$3,408.00
	F/P/S HEADWALLS					
	F/P/S & BACKFILL		56.00	HR	347.81	\$19,477.36
	SHEET PILE AND DEWATER WORK AREA					
	SHEET PILE MATERIALS		1,220.00	SF	8.29	\$10,113.80
	SHEETING MATERIAL TRANSPORTATION		1.00	LS	750.00	\$750.00
	UNLOAD AND INSTALL (> cz) 15' SHEETS (L&E)		18.00	HR	347.81	\$6,260.58
	SET PUMP AND DEWATER (L&E)		10.00	HR	347.81	\$3,478.10
	EXTRACT SHEETS AND RELOAD		15.00	HR	347.81	\$5,217.15

SUBTOTAL LABOR, EQUIP, MATERIALS \$137,748.82
 OVERHEAD COST (8%) \$11,019.91
 CONTRACTOR MARK-UP (15%) \$20,662.32
 TOTAL \$169,431.05

6	BOSTON HWY - 6.9 M.P. REPLACE 4 X 48" CD AND HEADWALLS	0430- 6.9 M.P. BOSTON HWY 4X48" CD				
	GENERAL CONDITIONS/MOBILIZATION/SUPERVISION		1.00	LS	\$6,701.00	\$6,701.00
	MOT SET UP - MAINTAIN					
	POST SIGN SET-UP & TEMP STOP BARS		1.00	LS	1,750.00	\$1,750.00
	LO-PRO WALL / SAFE SLOPE		108.00	LF	95.00	\$10,260.00
	TEMP TRAFFIC SIGNALS (FOR 1 LANE, 2-WAY TCP)		20.00	ED	168.00	\$3,360.00
	VMS BOARDS		30.00	ED	25.00	\$750.00
	CLEAR & GRUB					
	TREE CLEARING & DISPOSAL		21.00	HR	416.81	\$8,753.01
	MATERIALS					
	42" CD PIPE & MISC - RELINING & GROUT SPACE		360.00	LF	77.86	\$28,029.60
	3000 PSI GROUT MATERIALS		16.00	CY	135.40	\$2,166.40
	HEADWALL REDI-MIX/STEEL		27.17	CY	145.14	\$3,943.45
	REINFORCING STEEL		400.00	LB	0.57	\$228.00
	CONSUMABLES/FORM SUPPLIES/FILL MATL		1.00	LS	5,165.20	\$5,165.20
	DETOUR INSTALL/REMOVE					
	PLOW OUT & 4" SP BASE (5' WIDE) - BOTH SHOULDERS		10.00	HR	234.65	\$2,346.50
	ASPHALT BASE 4" THICK (MATLS & HAUL)		42.00	TN	96.50	\$4,053.00
	DEMO AND RE-GRADE SHOULDER		12.50	HR	234.65	\$2,933.13
	EXCAVATION TO FOOTER/BACKFILL					
	EXCAVATE FIRST SIDE, PLACE STONE & BACKFILL		30.00	HR	347.81	\$10,434.30
	EXCAVATE 2ND SIDE, PLACE STONE & BACKFILL		30.00	HR	347.81	\$10,434.30
	GROUT ANNULAR SPACE AROUND LINER PIPE					
	LABOR & EQUIP/RENTALS		19.00	HR	392.20	\$7,451.80
	F/P/S HEADWALLS					
	F/P/S & BACKFILL		59.00	HR	347.81	\$20,520.79
	SHEET PILE AND DEWATER WORK AREA					
	SHEET PILE MATERIALS		1,265.00	SF	8.29	\$10,486.85
	SHEETING MATERIAL TRANSPORTATION		1.00	LS	800.00	\$800.00
	UNLOAD AND INSTALL (> cz) 15' SHEETS (L&E)		19.00	HR	347.81	\$6,608.39
	SET PUMP AND DEWATER (L&E)		10.00	HR	347.81	\$3,478.10
	EXTRACT SHEETS AND RELOAD		15.00	HR	347.81	\$5,217.15

SUBTOTAL LABOR/EQUIP/MATLS \$149,169.97
 OVERHEAD COST (8%) \$11,933.60
 CONTRACTOR MARK-UP (15%) \$22,375.50
 TOTAL \$183,479.06

7 UPPER CODY RD - 1.0 MP FROM TRAM - 3 X 30" CD WITH HEADWAL 0430 - CODY RD 1.0 M.P. - 30" CD						
GENERAL CONDITIONS/MOBILIZATION/SUPERVISION		1.00	LS	\$4,014.00	\$4,014.00	
MOT SET UP - MAINTAIN						
POST SIGN SET-UP-CLOSE ROAD		1.00	LS	1,500.00	\$1,500.00	
VMS BOARDS		14.00	ED	30.00	\$420.00	
CLEAR & GRUB						
TREE CLEARING & HAUL/DISPOSAL		10.00	HR	416.81	\$4,168.10	
MATERIALS						
30" DUROMAXX PIPE & JOINT WRAP		144.00	LF	44.45	\$6,400.80	
STONE BEDDING MATERIALS & HAUL		42.00	TN	35.00	\$1,470.00	
FDOT INDEX 250 HEADWALL CONCRETE MATLS		11.55	CY	145.14	\$1,676.37	
REINFORCING STEEL		250.00	LB	0.57	\$142.50	
CONSUMABLES/FORM SUPPLIES/FILL/BASE		1.00	LS	2,198.45	\$2,198.45	
CUT ROAD/DEMO PIPE/NEW PIPE/BACKFILL						
TEAR OUT ENTIRE ROAD WIDTH, PLACE & BACKFILL		30.00	HR	419.31	\$12,579.30	
F/P/S HEADWALLS						
F/P/S & BACKFILL		49.00	HR	347.81	\$17,042.69	
SHEET PILE AND DEWATER WORK AREA						
SHEET PILE MATERIALS		1,440.00	SF	8.29	\$11,937.60	
SHEETING MATERIAL TRANSPORTATION		1.00	LS	850.00	\$850.00	
UNLOAD AND INSTALL (> cz) 15' SHEETS (L&E)		22.00	HR	347.81	\$7,651.82	
SET PUMP AND DEWATER (L&E)		10.00	HR	347.81	\$3,478.10	
EXTRACT SHEETS AND RELOAD		15.00	HR	347.81	\$5,217.15	

** this site price assumes complete road shutdown

SUBTOTAL LABOR/EQUIP/MATLS	\$80,746.88
OVERHEAD COST (8%)	\$6,459.75
CONTRACTOR MARK-UP (15%)	\$12,112.03
TOTAL	\$99,318.66

8 BROCK ROAD FROM DILLS, SOUTH, 0.2 M.P., ADD HEADWALLS TO 2) 0400- BROCK RD 0.2 M.P. FROM DILLS - HEADWALLS AND 2-30", 1 - 18"						
GENERAL CONDITIONS/MOBILIZATION/SUPERVISION		1.00	LS	\$4,423.50	\$4,423.50	
MOT SET UP - MAINTAIN						
POST MOUNTED SIGN SET-UP		1.00	LS	1,750.00	\$1,750.00	
VMS BOARDS		14.00	ED	30.00	\$420.00	
CLEAR & GRUB						
TREE CLEARING & DISPOSAL / SITE PREP		15.00	HR	416.80	\$6,252.00	
MATERIALS						
INDEX 250 HEADWALL CONCRETE		13.20	CY	145.13	\$1,915.72	
REINFORCING STEEL		200.00	LB	0.57	\$114.00	
CONSUMABLES/SUPPLIES/FILL/BASE		1.00	LS	4,321.00	\$4,321.00	
F/P/S HEADWALLS						
F/P/S & BACKFILL (L&E)		49.00	HR	347.81	\$17,042.69	

SUBTOTAL LABOR, EQUIP, MATLS	\$31,815.41
OVERHEAD COST (8%)	\$2,545.23
CONTRACTOR MARK-UP (15%)	\$4,772.31
TOTAL	\$39,132.95

APPENDIX F:

2019 HMGP Proposed Projects Endorsement Letter



BOARD OF COUNTY COMMISSIONERS

JEFFERSON COUNTY, FLORIDA

THE KEYSTONE COUNTY-ESTABLISHED 1827
 1484 SOUTH JEFFERSON STREET; MONTICELLO, FLORIDA 32344
 PHONE: (850)-342-0287

Stephen Fulford District 1	Gene Hall District 2	J T Surles District 3-Chair	Betsy Barfield District 4	Stephen Walker District 5-Vice Chair
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8/26/19

Kathleen Marshall, Hazard Mitigation Grant Program
 Florida Division of Emergency Management
 Mitigation Bureau
 2555 Shumard Oak Boulevard
 Tallahassee, Florida 32399-2100

RE: Hazard Mitigation Grant Program (HMGP) Application for FEMA 4399-DR-FL, Hurricane Michael

Dear Ms. Marshall,

The Jefferson County Local Mitigation Strategy (LMS) working group has approved by vote the following project for HMGP funding from this disaster. This project aligns with our LMS goals and objectives and with the State's mitigation goals and objectives (in accordance with the Code of Federal Regulations 44 §201.6).

The Jefferson County LMS group therefore presents the project below to be considered for funding.

Funding	Project Name or Description	Applicant	Estimated Total Project Cost	Estimated Federal Share
1.	Jefferson County Florida Culvert-Bridge Restoration Project	Board of County Commissioners, Jefferson County Florida	\$1,591,640.13	\$1,193,730.10

For further information or inquiry, please contact me at 850-342-0287 or by email at bbarfield@jeffersoncountyfl.gov.

Sincerely,

Betsy Barfield, Chairman of the Board
 Board of County Commissioners, Jefferson County, Florida



BOARD OF COUNTY COMMISSIONERS

JEFFERSON COUNTY, FLORIDA

THE KEYSTONE COUNTY-ESTABLISHED 1827
1484 SOUTH JEFFERSON STREET; MONTICELLO, FLORIDA 32344
PHONE: (850)-342-0287

Stephen Fulford
District 1

Gene Hall
District 2

J T Surles
District 3-Chair

Betsy Barfield
District 4

Stephen Walker
District 5-Vice Chair

APPENDIX G:

Glossary of Natural Hazard and Mitigation Terms

Glossary of Natural Hazard and Mitigation

The following terms are used in the field of hazard mitigation, or describe community facilities, federal programs, processes, or elements of a hazard mitigation or community recovery program.

Aquifer Recharge Areas: Areas contributing to or providing volumes of water, which make a contribution to the storage or regional flow of an aquifer.

Base Flood Elevation (BFE): The highest elevation, expressed in feet above sea level, of the level of flood waters occurring in the regulatory base flood (i.e. 100-year flood event).

Building Codes: Regulations adopted by local government that establish standards for construction, modification, and repair of buildings and other structures.

Coastal High Hazard Area (CHA): Evacuation zone for a Category 1 hurricane as established in the Tampa Bay Regional Planning Council's Hurricane Evacuation Study.

Community Development Block Grants (CDBG): The objective of the CDBG program is to facilitate the development of viable urban communities by providing decent housing and a suitable living environment, while expanding economic opportunities primarily for persons of low and moderate incomes. Funds must be used so as to give maximum feasible priority to activities which will carry out one of the three broad national objectives of: benefit to low and moderate income families; or aid in the prevention or elimination of slums or blight; or activities designed to meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community.

Community Rating System (CRS): An initiative of the Federal Insurance Administration to encourage increased efforts in the reduction of flood losses, facilitate accurate insurance ratings and promote the awareness of flood insurance.

Comprehensive Emergency Management Plan (CEMP): Required by Florida Statutes and addresses the four inter-related phases of emergency management: preparedness, response, recovery and mitigation.

Critical Facilities: A structure from which essential services and functions for victim survival, continuation of public safety actions, and/or disaster recovery are performed or provided. These may include one or more of the following: Hospitals, nursing homes, medical service facilities, convalescent and assisted living facilities; police stations, fire stations, storage of critical records; government buildings and law enforcement offices; evacuation shelters and emergency operation centers that are needed for flood response activities before, during, or after a flood; and public and private utility (water and wastewater) facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood; radio/cellular/TV towers; schools and universities ; landfills; and structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic and/or water-reactive materials. The term includes facilities that are assigned Risk Category III and Risk Category IV pursuant to the Florida Building Code, Building.

Glossary of Natural Hazard and Mitigation

Cultural Facilities: Establishments such as museums or art galleries of an historic, educational or cultural interest that are not operated commercially.

Glossary of Natural Hazard and Mitigation

Development: The carrying out of any building activity or mining operation, the making of any material change in the use or appearance of any structure or land, or the dividing of land into three or more parcels.

Disaster: Any natural, technological, or civil emergency that causes damage of sufficient severity and magnitude to result in a request for a declaration of a state of emergency or disaster by a community or state to the President of the United States. Disasters are identified by the severity of resulting damage, as follows:

- **Minor Disaster:** A disaster that is likely to be within the response capabilities of local government and to result in only a minimal need for State or Federal assistance.
- **Major Disaster:** A disaster that will likely exceed local capabilities and require a broad range of State and Federal assistance.
- **Catastrophic Disaster:** A disaster that will require massive state and federal assistance, including immediate military involvement.

Drainage: Surface water runoff or the removal of surface water or groundwater from land by drains, grading or other means.

Emergency Management, Preparedness and Assistance (EMPA) Trust Fund Grant Program: Competitive grant for the state or regional agencies, local governments and private non-profit organizations for the implementation of projects that will further state and local emergency management objectives.

Evacuation Routes: Routes designated by Pasco County Office of Emergency Management and the Tampa Bay Regional Planning Council for the movement of persons to safety in the event of a hurricane.

Floodplain Management Plan: The operation of a program containing corrective and preventive measures for reducing flood damage including, but not limited to, flood control projects, floodplain land use regulations, flood proofing of buildings and emergency preparedness plans.

Flood-prone Areas: Areas inundated during a 100-year event or areas identified by the National Flood Insurance Program as an “A Zone” on Flood Insurance Rate Maps or Flood Hazard Boundary Maps.

Goal: Long-term end toward which programs or activities are ultimately directed.

Habitat: The particular natural community or communities that typically support a population of a particular plant or animal species.

Hazardous Material: Any substance or material in a quantity or form which may be harmful to humans, animals, crops, water systems, or other elements of the environment if accidentally released. Hazardous materials include: explosives, gases (compressed, liquefied, or dissolved), flammable and combustible liquids, flammable solids or substances, oxidizing substances, poisonous and infectious substances, radioactive materials and corrosives.

Hazard Mitigation Grant Program (HMGP): The program operates under the authority of Public Law 100-707, the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Section 404 provides to eligible applicants 75/25 (75% federal/25% local) matching funds to implement

Glossary of Natural Hazard and Mitigation

immediate and long-term hazard mitigation measures. Up 15% of the combined Public Assistance (PA) and Individual Assistance (IA) funding distributed during any single disaster is available to fund hazard mitigation projects. Section 406 is site-specific mitigation that is written if authorized by the federal/state/local officials and is in accordance with any applicable rules and regulations.

Historic Resources: All areas, districts or sites containing properties listed on the Florida Master Site File, the National Register of Historic Places, or designated by a local government as historically, architecturally, or archaeologically significant.

Hurricane Shelter: A structure which meets the shelter selection guidelines, designated by local officials to be pre-identified for sheltering residents during a hurricane.

Infrastructure: Man-made structures which serve the common needs of the population, such as: sewage disposal systems, potable water systems, potable water wells serving a system, solid waste disposal sites or retention areas, stormwater systems, utilities, piers, docks, wharves, breakwaters, bulkheads, seawalls, bulwarks, revetments, causeways, marinas, navigation channels, bridges and roadways.

Local Mitigation Strategy (LMS): Plan developed to minimize negative impacts (potential loss of life or property damage) from a natural, man-made or technological disaster.

Long-Term Temporary Housing: Tents, mobile homes, suitable rental housing, or other readily fabricated dwellings set-up for residents to live in until they are able to return to their own homes or find new homes. Utilization of this type of housing can last up to six months or longer.

Mitigate: To offset or reduce negative impacts through measures such as, but not limited to:

- Not taking action or parts of certain action.
- Limiting the degree or magnitude of the action.
- Repairing, rehabilitating, or restoring the affected resources.
- Preserving and maintaining operations over time during the life of the action, and
- Replacing or providing substitute resources or environment.

Mobile Home: A structure, transportable in one or more sections, twelve (12) body feet or more in width, and over forty (40) feet in length, which is built upon an integral chassis and designed to be used as a dwelling unit with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning, and electrical systems contained herein. If fabricated after June 15, 1976, each section shall bear a HUD label certifying that it was built in compliance with Federal Manufacturing Home Construction and Safety Standards 42 USC 5401 and 24 CR 3282 and 3283.

Mobile Home Park: A mobile home development consisting of a parcel of land under single ownership which has been, or is proposed to be, planned and improved for the placement of mobile homes for non-transient use.

Mobile Home Space: A plot of land for placement one mobile home within a mobile home park.

Glossary of Natural Hazard and Mitigation

National Flood Insurance Program (NFIP): A federal program, which authorizes the sale of federally subsidized flood insurance in communities that agree to adopt and implement flood mitigation strategies and regulations.

Non-Special Flood Hazard Area (NSFHA): Moderate-to-low risk areas where the risk of being flooded is reduced but not completely removed. These areas submit over 20% of NFIP claims and receive one-third of disaster assistance for flooding. Flood insurance isn't federally required in moderate-to-low areas, but it is recommended for all property owners and renters. They are shown on FIRMs as zones labeled with the letters B, C or X (or a shaded X).

Objective: A specific, measurable, intermediate end that is achievable and marks progress toward a goal.

Open Space: Undeveloped lands suitable for passive recreation or conservation uses.

Post-Disaster Recovery: Long-term activity designed to return life to normal or improved levels following a disaster.

Project Impact: FEMA initiative that challenges communities to take actions that protect families, businesses and property by reducing the effects of natural disasters.

Public Facilities: Systems or facilities falling into categories such as transportation, sewer, solid waste, drainage, potable water, educational, parks and recreation, and public health.

Recreational Vehicle: Vehicle type unit primarily designed as temporary living quarters for recreational, camping, or travel use, which either has its own motive power or is mounted on or drawn by another vehicle.

Recreational Vehicle (RV) Park: Place set aside and offered by a person, for either direct or indirect remuneration of the owner, leaser, or operator of such place, for the parking, accommodation, or rental of five or more recreational vehicles or tents; and the group camping and similar recreational facilities.

Retrofit: Corrective measures taken on an existing structure to minimize damage caused by water, wind and fire.

Runoff: The part of the rainfall that travels to surface streams and water bodies via surface or subsurface routes.

Special Flood Hazard Area (SFHA): High-risk areas where there is at least a 1 in 4 chance of flooding during a 30-year mortgage. All home and business owners in these areas with mortgages from federally regulated or insured lenders are required to buy flood insurance. These areas are shown on the FIRMs as zones labeled with the letters A or V.

Storm Surge: The abnormal rise in water level caused by the wind and pressure forces of a hurricane or tropical storm. Storm surge produces most of the flood damage and drowning associated with storms that make landfall or that closely approach the coastline.

Stormwater: Flow of water resulting from a rainfall event.

Subdivision: The division of land, lot, tract or parcel into two or more lots, parcels, plats or sites, or other divisions of land for the purpose of sale, lease, offer, or (immediate or future)

Glossary of Natural Hazard and Mitigation

development. The term also includes the division of residential, commercial, industrial, agricultural, or other land by means such as deed, metes and bounds description, lease, map or plat.

Undetermined-Risk Areas: No flood-hazard analysis has been conducted in these areas, but a flood risk still exists. Flood insurance rates reflect the uncertainty of the flood risk. These areas are labeled with the letter D on the FIRMs.

Wetlands: Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils.

APPENDIX H:

NOTICE OF MEETING

The Jefferson County LMS Planning Committee/Work Group will meet at Jefferson County Emergency Management Office 169 Industrial Park Monticello, FL 32344 Thursday February 11, 2021, Or Via ZOOM:

Join Zoom Meeting

<https://us02web.zoom.us/j/9772240781?pwd=aTZBem1mSUoybnVDMjJlLTU0b6Wm56dzc0>

Meeting ID: 977 224 0781

Passcode: 2112021

One tap mobile

+13126266799,,9772240781#,,,,*2112021# US (Chicago)

+19292056099,,9772240781#,,,,*2112021# US (New York)

Dial by your location

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+1 929 205 6099 US (New York)

+1 301 715 8592 US (Washington DC)

+1 346 248 7799 US (Houston)

+1 669 900 6833 US (San Jose)

+1 253 215 8782 US (Tacoma)

Meeting ID: 977 224 0781

Passcode: 2112021

Find your local number: <https://us02web.zoom.us/j/9772240781>

The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long-term risk for protecting people and property from the effects of natural disasters and to build a safer and stronger community. We will review the 2021 LMS Plan for Jefferson County. Please contact the Jefferson County Emergency Management at 850-342-0211 for more information.

LMS /Stakeholder

The purpose of this meeting is to review and go over LMS Plan 2021. Discuss any new projects. Update HMPG application for Hurricane Michael. All invited please make sure you extend the invitation to the community and friends!

62/03,02/05, 62/16, 02/12

Glossary of Natural Hazard and Mitigation



Mac McNeill, Sheriff
Jefferson County Sheriff's Office
Division of Emergency Management

169 Industrial Park
Monticello, Florida 32344
Phone: (850) 342-0211
Fax: (850) 342-0214



Jefferson County
Local Mitigation Strategy
Stakeholders Committee Meeting
February 11, 2021

Meeting Minutes:

Welcome/Introductions:

In Attendance: Shannon Metty, Paula Carroll, Kayla Kinsey, Raymond Clark Jr., Derrick Burrus, Todd Schroeder, Martha Creel, Kristy Anderson.

- V. Gave a brief over view of what LMS(Local Mitigation Strategy) is all about. Explain it is time for our 5 year plan review. And that we have already received our Florida Administrative 27P Compliance Letter.
- VI. Review of Project list for LMS 2020-2021:
City of Monticello project needs to be removed they have already repaired culvert, Tyson Road with County still needs repair, and the City of Monticello also uses Tyson Road. DOH might had the money to do the Hurricane windows, we will need to remove the Project from list. Supervisor of Elections moved into the Health Department's Annex. Obtaining a cache for satellite phone, EOC is looking it to getting quotes. Mrs. Margaret is going to reach out to Greater Elizabeth about their project that is on the list. Forestry is just showing proof that they are doing public outreach and are a part of the LMS.
- VII. Go Over LMS Requirements:

LMS for Jefferson County is due May 2021, EOC has updated and sent to Laura Waterman for review. Sent to the Board of County Commissioners for Approval and Sent to the City Council for Approval.
- VIII. Open Discussion:

Next Meeting will be June 2021

Glossary of Natural Hazard and Mitigation



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Jefferson County Emergency Management

Posted by Jefferson EM

Jan 29 · 🌐

The Jefferson County LMS Planning Committee/Work Group will meet at Jefferson County Emergency Management Office 169 Industrial Park Monticello, FL 32344 Thursday February 11, 2021, at 3:30 Or Via ZOOM. The County encourages any interested citizens and business owners to attend and provide input. The Committee guides the preparation of the Jefferson County LMS, which serves as a plan to reduce the community's long-term risk for protecting people and property from the effects of natural disasters and to build a safer and stronger community. The purpose of this meeting is to review and go over LMS Plan 2021. Discuss any new projects. Update HMPG application for Hurricane Michael. If you are in assistance such as you need an interpreter for this meeting please call 850-342-0211 before the day of this meeting.



Glossary of Natural Hazard and Mitigation

The *Monticello News and Jefferson County Journal*, published every Wednesday and Friday in the City of Monticello, County of Jefferson and State of Florida

AFFIDAVIT OF PUBLICATION

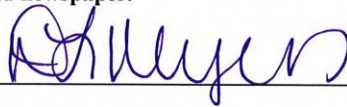
Before me, the undersigned authority personally appeared, DEIDRE MYERS who on oath says that she is the Bookkeeper for the *Monticello News and Jefferson County Journal*, a weekly newspaper, published in Monticello, Jefferson County, Florida; that the attached copy of the advertisement being a:

Notice to Meeting: Jefferson County LMs Planning Committee/Work Group Meeting Feb. 11

was published in said newspaper in the issue of: February 3, 2021
February 5, 2021
February 10, 2021
February 12, 2021

Affiant further says that the said *Monticello News* a newspaper published at Monticello, in Jefferson County, Florida, and that the said newspaper has heretofore been continuously published in said Jefferson County, Florida, each week and has been entered as second class mail matter at the post office in Monticello, in said Jefferson County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Signed by: _____



Sworn to and subscribed before me this 12th day of February A.D. 2021

Notary Public



EMERALD G. PARSONS
Notary Public, State of Florida
My Comm. Expires July 28, 2021
Notary ID-216522
Commission No. GG 119667