Local Mitigation Strategy

Commented [BW1]: The Bradford County LMS has been moved into a standard planning format used by Emergency Management.

Bradford County, Florida

2026

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TABLE OF CONTENTS

Commented [BW2]: The Table of Contents will be updated following approval of plan

CHANGE LOG

Commented [BW3]: The Change Log will be used to document updates to the plan throughout the planning cycle.

Date	Section	Summary of Changes

OVERVIEW

According to the Federal Emergency Management Agency (FEMA), hazard mitigation planning reduces loss of life and property by minimizing the impact of disasters. This begins with local governments identifying hazards which may affect their area and developing strategies to protect from future events. By doing so, we can break the cycle of damage, reconstruction, and repeated damage. The following Local Mitigation Strategy (LMS) has been developed in accordance with local, state, and federal guidelines. Chapter 44, Part 201.6, of the Code of Federal Regulations requires that all hazard mitigation plans be reviewed, updated, and resubmitted for approval on a five-year basis in order to remain eligible for federal hazard mitigation grants. As the State of Florida operates under FEMA's Program Administration by States (PAS) with regard to the review and approval of LMS plans, this plan will be submitted to the Florida Division of Emergency Management (FDEM).

Over the years, several hazards have been identified as being a threat to Bradford County. Tropical cyclones, thunderstorms, tornadoes, and wildfires, among others, threaten the county, its infrastructure and populace. The objective of the LMS Working Group and this LMS Plan is to develop a process to plan for, assess, and mitigate these hazards in order to protect the people, property, and economy of Bradford County.

This LMS Plan is required by FEMA and FDEM to be adopted by not only Bradford County, but the local governing bodies contained within, which include: the City of Starke, the City of Lawtey, the City of Hampton, and the Town of Brooker. Adoption of the Bradford County LMS Plan by the City and County Commissions will not have any legal effect on the Comprehensive Plan or any other legally binding documents. However, adoption of the LMS will give the county and its jurisdictions priority with respect to funding for disaster recovery and hazard mitigation from state and federal sources.

Commented [BW4]: P2 (A1-b)

Additionally, by publishing this LMS Plan and ensuring its availability to the public, the Bradford County LMS Working Group will continue to seek out the involvement of the community as a whole in order to make Bradford County a safer place to live and work as it relates to the impacts of disastrous events.

Sections

Section 1 – The Introduction identifies the purpose and context for the plan. The Planning Process provides the details used to develop the plan, including how it was prepared, who was involved in the process for each jurisdiction, and how the public was involved.

Section 2 - The Community and Land Use Profile details the geography, demographics, and land use of Bradford County. These are identified with details on the current and future land use, which are important elements in the mitigation planning.

Section 3 - Hazard Risk and Vulnerability Assessment defines the type and previous occurrences of the natural hazards, the probability, the location, the vulnerability, the extent, and impact of the natural hazards that affect the county and its' municipality.

Section 4 - Mitigation Strategy provides the risk assessment, which are based on existing authorities, policies, programs, and resources, and its ability to expand on and improve these existing structures. The areas in this section will consist of the LMS goals and objectives, the National Flood Insurance Program (NFIP) and compliance, the implementation of the mitigation projects, the jurisdictions that will benefit from the mitigation projects and potential funding sources.

Section 5 - Plan Evaluation and Maintenance will discuss the evaluation and maintenance of the LMS plan. Details on how Bradford's development has impacted vulnerability, changes in development and completed projects are noted. It will examine other community planning mechanisms, and public participation in the plan's maintenance process.

Appendix I - Bradford County's LMS meeting documentation over the last five years including (i.e. meeting advertisement or public notice, agenda, sign-in sheets, and meeting minutes).

Attachment I - The LMS Project or Initiatives Master list (comprising of): Current list of the new, ongoing or deferred mitigation projects Completed list of mitigation projects deleted or removed list of mitigation projects

Attachment II - Bradford County Capital Improvement Project List

Attachment III - Community Wildfire Protection Plan for Bradford County

INTRODUCTION & PLANNING PROCESS

Section Requirements

§201.6 (c) (1) - The plan shall include documentation of the planning process used to develop the plan, including how it was prepared, who was involved in the process for each jurisdiction, and how the public was involved.

§201.6 (b) (2) - An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process.

§201.6 (b) (1) - An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval.

§201.6 (b) (3) - Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

§201.6 (c) (4) (iii) - Discussion on how the community will continue public participation in the plan maintenance process.

§201.6 (c) (4)(i) - A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

INTRODUCTION

In a publication entitled *Local Hazard Mitigation Planning*, FEMA provided the following benefits of hazard mitigation:

- Protecting the public and preventing loss of life and/or injury;
- Reducing harm to existing or future development;
- Maintaining continuity and strengthening the social connections that are essential for recovery;
- Preventing damage to the community's unique economic, cultural, and environmental assets;
- Accelerating recovery; and
- Reducing disaster response and recovery costs.

The fact is no community is immune to the risks of hazards and not all hazards can be eliminated. However, it is possible to identify potential hazards, where they may affect a community, and to formulate a plan to reduce the severity of the hazard.

FEMA defines hazard mitigation as "any action taken to reduce or eliminate the long-term risk to life and property from hazards". Furthermore, they emphasize that hazard mitigation is most effective at reducing loss when it is based on an inclusive, comprehensive, long-term plan that is developed before a disaster occurs (FEMA IS-318, Mitigation Planning for Local and Tribal Communities). Bradford County could see an array of mitigation projects, to include, flood mitigation or structure retrofitting.

Proper hazard mitigation is crucial to protecting the county's critical facilities and infrastructure. The County's critical facilities are those that are necessary for a community's response and recovery from a hazard event. Categories of the critical facilities would include: hospitals, medical centers, emergency shelters, schools, airports, fire stations, the Sheriff's Office, the Emergency Operations Center, wastewater and water treatment plants, radio communications towers, correctional institutions, utilities, storage of critical records, financial institutions, and major government buildings, etc. Infrastructure such as bridges, roads, drainage structures, sewer lines, electric lines, telephone lines that are built in high hazard areas are subject to frequent damage and costly repair. (Bradford County LMS Plan 2016).

Legislation plays a major role in hazard mitigation. The Disaster Mitigation Act of 2000 (DMA 2000) was developed in order to "reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from natural disasters." This legislation required state, local, and tribal governments to develop a hazard mitigation plan. According to DMA 2000, any

natural hazards that may affect a county will need to be addressed in the risk and vulnerability assessment section of the LMS Plan.

DMA 2000 established a deadline of November 1, 2004 as the date by which local governments were required to prepare and adopt their respective plans. As previously stated, local jurisdictions must review their LMS Plan to reflect changes in development, progress in local mitigation efforts, and changes in mitigation project priorities, then resubmit it for approval within 5 years from date of FEMA approval to remain eligible for the mitigation project grant funding. This plan is a continuation of the 2016 efforts and is the 3rd Edition of the 5-year revision and update process.

An important goal for the Bradford County Sheriff's Office Emergency Management Division (BCSO EM) is to engage the entire community. By participating in local events and presentations, BCSO EM is able to communicate the importance of planning and public safety. A fundamental tool in doing so is the BCSO EM Facebook Page. The page allows to community to stay current on emergency information. The county is very fortunate to have many citizens and organizations that participate on the LMS Working Group with active members from the local and state government, the community, including businesses and residents.

Commented [BW5]: Removed the number of participating organizations to prevent future discrepancies.

Commented [BW6]: Removed neighboring jurisdictions.

The Bradford County LMS Plan provides information needed by the managers and leaders of local government and the community to address potential hazards. All projects have been justified on the basis of their economic benefits and, when implemented, will be compatible with the interests of adjacent jurisdictions and unlikely to duplicate or interfere with mitigation projects proposed by others.

The following sections of the Bradford County LMS present the detailed information to support these objectives. In addition, it documents the structural and non-structural mitigation projects proposed by the participating jurisdictions to address the identified exposure. The plan will also address the goals and objectives of the Working Group for the next planning period, during which this plan will continue to be expanded and refined.

PLANNING PROCESS

The Bradford County LMS is a local community plan, which was developed by the LMS Working Group in order to be in compliance with the DMA 2000 requirements. The LMS Working Group consists of local government agencies, business interests, community organizations, regional agencies, institutions, and the general public. This section describes the organizational structure used to complete the public planning process.

The Bradford County LMS Working Group encourages participation by all interested local and neighboring jurisdictions, agencies, organizations, and individuals. Broad community representation is promoted in the Working Group and at public meetings to provide ample opportunity for public commentary and consideration of the local mitigation strategy.

While the Bradford County Sheriff's Office Emergency Management Division is the lead agency for scheduling and conducting the efforts of the LMS Working Group and is primarily responsible for updating the LMS plan, the organization is intended to be a cooperative partnership between the public and private sectors.

The LMS Working Group is responsible for:

- Official decisions regarding the planning process;
- Determining the priority and approving the proposed mitigation project for each jurisdiction;
- Deleting projects that are no longer applicable for implementation; and
- Coordinating the technical analysis and planning activities.

Members of county leadership, public organizations, and private citizens were invited to participate in the Bradford County LMS Working Group. The general public and neighboring communities are encouraged to become involved with the Bradford County Local Mitigation Strategy to gauge the plan effectiveness and help identify local hazards to be placed on the county project list. As noted, Bradford County is very successful in participation and support from the general public. 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 Bradford County Telegraph, and online at the: http://starkejournal.com/ (a service of the Bradford County Telegraph, Inc.).

The LMS Working Group has several other methods to include stakeholders in the LMS planning:

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Commented [BW8]: Removed "and currently in 2026 for the 5-year required update" to aid in future updates/clarity.

Commented [BW9]: Removed a duplicate line:

Bradford County is very fortunate to have an active LMS Working Group with over 59 members (including 2 residents and 6 representatives from local businesses) that participate in the mitigation efforts in the county.

Commented [BW10]: Removed "LMS Meeting Notices advertised at County Commissioner Meetings" and "LMS Meeting Notices advertised via the digital message board outside of the Emergency Operations Center". These are not common practice and not always feasible.

LMS website updated.

- LMS Meeting Notices posted on BCSO EM Facebook Page: www.facebook.com/bradfordemergency/
- LMS Meeting Notices posted on BCSO EM Website: http://www.bradfordsheriff.org/emergency-management/lms
- LMS Meeting Notices advertised in The Bradford County Telegraph newspaper;
- LMS Meeting Notices may be shared by local media outlets;
- LMS Meeting Notices may be shared with the LMS Working Group Participants via e-mail;
- A copy of the proposed and current LMS plan is available at the Bradford County Sheriff's Office Emergency Management Division for the public to view.

Table 2.1 – LMS Working Group Participants

Organization	Primary POC
Citizens of Bradford County	Representatives
American Red Cross	Representative
Bradford County Board of County Commissioners	BOCC Chair & County Manager
Bradford County Building, Zoning & Planning Department	Director & Floodplain Manager
Bradford County Clerk's Office	Clerk of Court & Chief Deputy Clerk of Court
Bradford County Community Development	Director
Bradford County Department of Information Technology	Supervisor
Bradford Environmental Forum	President
Bradford County Fire/Rescue	Chief & Division Chief
Bradford County Health Department	Administrator, Operations Manager, & Planner
Bradford County Property Appraiser's Office	Property Appraiser & Assistant Property Appraiser
Bradford County Public Works	Public Works Director & Solid Waste Director
Bradford County School Board	Superintendent of Schools, Deputy Superintendent of Schools, Transportation Supervisor, & Director of Operations & Safety.
Bradford County Sheriff's Office	Sheriff & Chief Deputy
Bradford County Sheriff's Office Animal Services	Supervisor
Bradford County Sheriff's Office Emergency Management Division	Director & Staff
Bradford County Soil and Water Conservation District	Representative
Bradford County Supervisor of Elections	Supervisor of Elections & Staff
Chemours Company	Representative
City of Hampton	Clerk
City of Lawtey	Clerk

Commented [BW11]: Added 2026

Commented [BW12]: Added 2026

Commented [BW13]: P4 (A2)
P5 (A3)

Commented [BW14]: Removed: Bradford County has an extensive group of over 59 Working Group Members that participate and provide support and assistance in the LMS meetings. Representation on membership includes:

The table has been updated to reflect the organization as the member and the primary POC(s) through which correspondence will be sent. These changes have been largely made to reflect organizational changes since last LMS Update. Baker County Emergency Management, City of Starke Police Department, Santa Fe College, SHIP Program, and Smith and Smith Realty have been removed. Organizational names have been updated for Bradford County Public Works and Florida Division of Emergency Management.

Commented [BW15]: P3 (A1-b)

Commented [BW16]: Reach out to any organization with a specific POC listed and determine.

Commented [BW17]: Per County Manager, possible re-organization coming. Please address this before finalizing.

Commented [BW18]: Added 02/19/2026

City of Starke	City Manager & City Clerk
City of Starke Fire Department	Chief
City of Starke Gas Department	Representative
Clay Electric	Representative
Florida Department of Transportation	Emergency Management Specialist & Maintenance Engineer
Florida Division of Emergency Management	Regional Coordinator & Regional Recovery Coordinator
Florida Fish and Wildlife	Representative
Florida Forest Service	Florida Area Supervisor/Wildfire Mitigation Specialist
Florida Power & Light	Representative
North Florida Regional Chamber of Commerce	Representative
North Florida Regional Medical Center - Starke	Representative
Rayonier	Representative
Salvation Army	Representative
Suwannee River Water Management District	Representative
Town of Brooker	Clerk

Commented [BW19]: Changed per FDOT 2026

LMS Working Group Meetings

Local Mitigation Strategy Working Group Meetings are held at least annually at the Bradford County Sheriff's Office Emergency Operations Center, located at 945-B North Temple Avenue, Starke, Florida 32091. See Appendix I for the meeting notices or advertisements, agendas, attendee sign-in sheets and meeting minutes.

Commented [BW20]: Changed from: Local Mitigation Strategy Meetings were held at the Bradford County Sheriff's Office Emergency Operations Center located at 945-B North Temple Avenue, Starke, Florida 32091. Meetings occurred in 2016, 2017, 2018, 2019, and 2020.

The procedure or direction used by the Bradford County LMS Working Group is based on the following important concepts:

- A comprehensive planning group representing all jurisdictions within Bradford County that establishes specific goals and objectives to address the community's vulnerabilities to the hazards that affect the community.
- It utilizes an analysis of the identified hazards, the risk evaluation and vulnerability assessment.
- Mitigation projects by the specific jurisdiction or organization with the authority and responsibility for the project implementation.

The planning process begins with the development of the Working Group as an organization and obtaining participation from the local government jurisdictions and key organizations and institutions. The planning work conducted to develop this document relies heavily on

the expertise of the participating agencies and organizations, rather than on detailed scientific or engineering studies. The Working Group relies on the best judgment of the participating individuals, because of their role in the community, can achieve a level of detail in the analysis that is more than adequate for purposes of local mitigation planning.

Analyzing the need for the community and then evaluating proposed mitigation projects to avoid or minimize vulnerability of the community to future disasters is important, and an area that will be reviewed and addressed on an annual basis. The goals and objectives set by the Working Group are intended to help focus the effort of the participants by directing attention to certain types of neighborhoods, or by emphasizing implementation of selected types of proposed mitigation projects.

Hazard Identification and Risk Estimation

The Working Group analyzes the natural hazards that threaten all or portions of the community. Where possible, specific geographic areas subject to the impacts of the identified hazards are delineated. Data is analyzed on previous occurrences for the natural hazards. In addition, the Working Group uses general information to estimate the relative risk of the various hazards as an additional method to focus their analysis and planning efforts. They compare the likelihood or probability that a hazard will impact an area, as well as the consequences of that impact to public health and safety, property, the economy, and the environment. This comparison of the consequences of an event with its probability of occurrence is a measure of the risk posed by that hazard to the community.

Depending on the participating jurisdiction, a variety of information is obtained regarding hazard identification and risk estimation. The planners representing the jurisdiction attempt to incorporate consideration of hazard specific maps, including flood plain delineation maps, whenever applicable, and GIS-based analyses of hazard areas and the locations of critical facilities, infrastructure components and other properties located within the defined hazard areas.

Estimating the relative risk of different hazards is followed by the assessment of the vulnerabilities in the likely areas of impact to the types of physical or operational agents potentially resulting from a hazard event.

Vulnerability Assessment

There are two procedures available to the Working Group to assess the communities' vulnerabilities to future disasters.

The first method is an examination of the vulnerabilities of the important facilities, systems and neighborhoods to the impacts of future disasters. For the participating jurisdictions and

organizations, the individuals most familiar with the facility, system or neighborhood will provide a guided, objective assessment process established by Working Group, and a complete the analysis and examination details.

The process ranks both the hazards to which the facility, system or neighborhood is most vulnerable, as well as the consequences to the community should it be disrupted or damaged by a disaster. This process typically results in identification of specific vulnerabilities that can be addressed by specific mitigation projects that can be proposed and incorporated into this plan.

The LMS Working Group will review past occurrences and decide on the need for specific mitigation projects based on the type or location of damage they caused. Analysis on these experiences can result in the formulation of specific mitigation projects for incorporation into the plan.

The second method for assessment of community vulnerabilities involves comparison of the existing policy, program and regulatory framework promulgated by local jurisdictions to control growth, development and facility operations in a manner that minimizes vulnerability to future disasters.

The Working Group members can assess the individual jurisdictions' existing codes, plans, and programs to compare their provisions and requirements against the hazards posing the greatest risk to that community. If indicated, the participating jurisdiction can then propose development of additional codes, plans or policies as mitigation projects for incorporation into the Bradford County LMS for future implementation when it is appropriate to do so.

The Working Group consults, reviews, and analyzes the following documents:

- Bradford County Emergency Management Plan
- Bradford County Comprehensive Plan
- Bradford County Code of Ordinances
- Bradford County Land Development Regulations
- City of Starke Comprehensive Plan
- City of Hampton Comprehensive Plan
- City of Lawtey Comprehensive Plan
- Town of Brooker Comprehensive Plan
- Enhanced State Hazard Mitigation Plan

Hazard Mitigation Projects

Developing hazard mitigation projects or initiatives enables the Working Group participants to prioritize the most significant vulnerabilities, and define specific hazard mitigation projects to eliminate or minimize those vulnerabilities.

Once the highest priorities are defined, the Working Group members can identify specific mitigation projects for the plan that would eliminate or minimize those vulnerabilities. This procedure involves describing the project, relating it to one of the goals and objectives established by the Working Group, and justifying its implementation on the basis of its economic benefits and/or protection of public health and safety, as well as valuable or irreplaceable resources.

The proposed mitigation projects are "prioritized" for implementation in a consistent manner by each participating organization using a set of eleven objective criteria.

- Percentage of the Population Benefited
- Percentage of the Affected Area Benefited
- Health and Safety Considerations (Countywide)
- Cost of Implementing the Initiative
- Benefit to Cost Ratio (FEMA Formula)
- Probability of Community Acceptance
- Probability of Funding
- Feasibility of Implementation and Environmental Acceptability
- Consistency with Other Plans and Programs
- Time Frame for Accomplishing
- Ranking Priority

In characterizing a mitigation project for incorporation into the LMS plan, it is important to recognize that the level of analysis conducted by each organization involved has been intentionally designed to be appropriate in this stage in the planning process.

In the interest of the LMS Working Group to have a satisfactory level of confidence that a proposed mitigation project, when it is implemented, will be cost effective, feasible to implement, acceptable to the community, and technically effective in its purpose. To do this, the technical analyses conducted, including the development of a benefit to cost ratio for each proposal, have been based on a straightforward, streamlined approach, relying largely on the informed judgment of experienced local officials.

The analyses have not been specifically designed to meet the known or anticipated requirements of any state or federal funding agency, due largely to the fact that such requirements can vary with the agency and type of proposal. Therefore, at the point when the organization proposing the project is applying for funding from any state or federal agency,

or from any other public or private funding source, that organization will then address the specific informational or analytical requirements of the funding agency.

Developing the Local Mitigation Strategy Plan

After the vulnerability assessment has been performed and mitigation projects are identified, the information used to characterize the project is submitted to the Working Group for review and inter-jurisdictional coordination.

The Working Group members assure that the proposal is consistent with the goals and objectives established by each jurisdiction for the planning period. Once the Working Group has reviewed and coordinated the submitted project, it is formally considered for incorporation into the Bradford County LMS. The proposed project is identified as consistent with the goals and objectives for the planning period and would be beneficial for the community as a whole if and when implemented. If so, the Working Group then informally votes to incorporate the proposed project into the strategy.

At the annual, semi-annual, or quarterly LMS meetings, each mitigation project included in the plan is evaluated to determine the following:

- If the project or initiative should remain as a valid and ongoing project (deferred until a later time due to funding);
- If the mitigation project is completed (all details are gathered on the hazard(s) mitigated, mitigation goals achieved, jurisdiction, funding source, total cost to complete the project, agency responsible for implementation, timeline to complete the project, and any specific details relevant to the project);
- If the project should be removed or deleted from the mitigation project list (LMS plan); and
- If there are any new projects that should be added to the mitigation project list (LMS plan).

See Attachment I for the details on the ongoing, completed, deleted or new mitigation projects for Bradford County.

Implementation of Approved Mitigation Projects

Once incorporated into the Bradford County LMS, the agency or organization proposing the project becomes responsible for its implementation, if feasible. Otherwise, it could be assigned to another department if the LMS Working Group votes to do so. This could be developing a budget for the effort or making application to state and federal agencies for financial support for implementation.

Current Status of Participation in the Working Group

In order to support the participating jurisdictions in the completion of the community profiles and vulnerability assessments, the Working Group will set a review for each technical step, provide training in the evaluation, if needed, and distribute the necessary forms for completion.

The staff supporting the LMS Working Group is from BCSO EM. The staff facilitated the work of the Working Group by advertising the LMS meetings, notifying the members and general public on the upcoming meeting, preparing the meeting agenda, completing the meeting minutes, updating the LMS mitigation project list, keeping documented data on the natural hazard events that occur, and providing technical assistance or direction on the analysis as needed.

The participating jurisdictions, organizations, and individuals in the Bradford County LMS Working Group have all worked diligently to complete this plan and will continue to do so in the future to create a truly disaster resistant community for the benefit of all its citizens.

Commented [BW21]: Removed section that contained COVID-19 information that is no longer relevant.

This section was about meetings during the pandemic.id

Plan Maintenance

Commented [BW22]: This section has been re-worked to be more concise. The information located on pages 84-86 of the 2021 Version has been relocated here as it is a more appropriate place.

The Bradford County Local Mitigation Strategy (LMS) Plan is updated every five years in compliance with the Florida Division of Emergency Management (FDEM) and the Federal Emergency Management Agency (FEMA) requirements. The update reflects the latest comprehensive review of county hazards, vulnerabilities, and mitigation priorities.

Between 2021 and 2026, the Bradford County LMS Working Group met at least once per year, with two meetings held annually except in 2024. In early 2026, two meetings focused on reviewing and finalizing plan revisions for submission to FDEM. The Bradford County Sheriff's Office Emergency Management Division maintains the LMS and oversees implementation of updates approved by the Working Group.

All LMS meetings were publicly announced in advance through local media and social media to ensure transparency and public engagement. Stakeholders—including, but not limited to, local governments, emergency management, utilities, businesses, nonprofits, and the general public—were invited to attend and provide input. Public feedback was reviewed and incorporated where appropriate.

To expand participation, individuals unable to attend meetings may review draft plans and submit formal comments at the Bradford County Sheriff's Office Emergency Management Division. Meeting notices, agendas, minutes, and materials are also available for public review at the same location and on the county website.

Public involvement remains a priority for Bradford County. Ongoing outreach activities include:

- Advertising LMS meetings through local newspapers and social media.

- Disseminating disaster safety information.
- First responder outreach presentations and community "show & tell" events.

The LMS Working Group will continue to hold public meetings throughout each five-year planning cycle, with opportunities for citizen comment at every session. Notices are posted on the county's Emergency Management website and Facebook page:

- Website: https://www.bradfordsheriff.org/emergency-management/lms/
- Facebook: https://www.facebook.com/BradfordEmergency

Before final approval, at least one public meeting is held to solicit formal comments. Following Working Group approval, the revised LMS Plan and crosswalk are submitted to FDEM for state review. Upon receiving an "approved pending adoption" letter, the LMS Working Group presents the plan to the County Commission and municipal commissions of Starke, Lawtey, Hampton, and Brooker for formal adoption. At least one jurisdiction must adopt the plan within one year for final state approval, and all jurisdictions must adopt it to remain eligible for federal mitigation funding.

Administrative Updates

Commented [BW23]: New paragraph requested by EM.

The Bradford County Sheriff's Office Emergency Management Division is authorized to make administrative updates to the Local Mitigation Strategy throughout the year. Such updates may include, but are not limited to, revisions to the LMS Working Group Members List, updates to hazard occurrences, and disaster declaration data. These administrative modifications shall not alter the substantive content or strategic direction of the plan and will be documented in the plan's Change Log, distributed via LMS Working Group news updates, and presented at the next LMS Working Group Meeting.

Commented [BW24]: 02/19/2026 LMS Working Group Meeting: BOCC Chair Mrs. Spooner suggested having an e-mail update. As LMSWG Meetings are planned for Q1 and Q3 of the year, a Q2 and Q4 newsletter is being planned to keep LMSWG up-to-date. Administrative changes to the plan will be a part of that news letter.

Community Profile and Land Use Overview

Section Requirements

§201.6 (c) (2) (ii)- The plan should describe vulnerability of providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.

Geography & Demographics

Bradford County is a rural county in Northeast Florida located between Gainesville and Jacksonville. Originally founded in 1858 as New River County, today's boundaries were formed in 1921 by its split into Bradford and Union counties. Bradford County covers approximately 300 square miles (294 square miles of land) and is home to around 28,000 residents. Bradford County is the third-smallest county in the State of Florida by land area. The county seat of Bradford County is the City of Starke. Bradford County is also home to the cities of Hampton and Lawtey, as well as the Town of Brooker. The county is bordered by Baker County to the north, Union County to the west, Alachua County to the south, and Clay County to the east.

Bradford County is susceptible to flooding and wind damage. Prior studies have identified the median household income to be around $33,000, with about 15% of the county living below the poverty line. Because of this, the county has a number of poorly constructed homes, as well as mobile homes, leading to the risk of wind damage. Flood mitigation is a widely discussed aspect of the county and flood plains have been identified and mapped and are maintained in the Emergency Management Division and in the Building & Zoning Office.

Bradford County is the 51st most populous county with 0.1% of Florida's population	
2020 Census	28,303
% change 2010-2020	-0.8%
2030 Estimate based on 2025 estimate	28,334
Density – Person per square mile	
2020	96.3
2025	94.1

Source: http://edr.state.fl.us/Content/area-profiles/county/bradford.pdf

Commented [BW25]: Updated

Special Events

Commented [BW26]: Updated 2026 to be more encompassing of special events.

Bradford County plays host to several significant events throughout the year. Springtime features two major events: the Bradford County Fair and the Bradford County Strawberry Festival. Each event attracts thousands of spectators to the Bradford County Fairgrounds with its entertainment, vendors, food, and more.

Normally held around the first week of March, the Fair brings together families, students, exhibitors, and volunteers to showcase the very best of Bradford County's agricultural heritage, talent, and hometown pride for the past 85 years.

The Bradford County Strawberry Festival began in 1998 and was established to celebrate the importance of the strawberry crop in the community and has since become an annual event held during the first week of April.

More recently, the City of Starke launched the "Starke Spangled Splash Bash" in 2021 to celebrate the July 4th Independence holiday. Held at the David Hurse football stadium on the Bradford High School campus, several thousand people turn out for a variety of events including a temporary water park, live music and fireworks. The event starts with a parade through downtown attended by hundreds of people.

Downtown Starke also hosts a variety of events from concerts to the annual "Great Pumpkin Escape" in the fall. Call Street is shut down, and hundreds of pedestrians gather to celebrate the fall season. The city recently expanded its downtown square in anticipation of additional programs and concerts for the public to attend.

Over the Veteran's Day holiday, Bradford County hosts the Krawl'n for the Fallen offroad event, held at the Florida International Rally Motorsports Park near the Keystone Airport. This event raises awareness and remembrance for fallen Law Enforcement Officers. According to Off Road United, the event organizers, Krawl'n showcased over 600 registered Jeeps, hosted more than 1500 attendees and approximately 58 vendors in 2019, raising $75,000.

Lastly, during the Christmas season, the City of Starke hosts the annual Christmas on Call Street, where dozens of vendors and participants gather for the holiday celebration featuring an evening parade, live music, vendors, food, and a visit by Santa for the children.

As events like these as well as others continue to grow, they should be carefully observed and properly planned for.

Topography

Bradford County is in the Gulf Coastal Lowlands physiographic area, and its topography ranges from 39.1 feet to 179.1 feet North American Vertical Datum of 1988 (NAVD88).

The east and northeast sides of both Santa Fe Lake and Little Santa Fe Lake are in the Chipley-Leon, Osier Soil Association, which consists of nearly level to gently sloping, moderately well-drained sandy soils, and poorly drained sandy soils with an area of weakly cemented sandy subsoil. The area downstream of Little Santa Fe Lake and adjacent to the Santa Fe River up to CR 225 is in the Brighton Association, which consists of nearly level, very poorly drained organic soils in marshy areas surrounded by mineral soils. From CR 225 to the confluence of the New River, the adjacent shoreline is in the Fresh Water Swamp Association, which consists of nearly level, very poorly drained soils subject to prolonged flooding (Florida Bureau of Comprehensive Planning, 1975).

Bradford County sees use of its transportation systems by both public and private entities. The county is home to a US Highway, as well as an alternate route, three State Roads, and numerous county roads. In addition, the county is utilized by commercial railway traffic. Semi-trucks and railcars carry a wide variety of cargo including hazardous materials through the county on these routes. The most shipped chemicals are petroleum-related products including gasoline, diesel, fuel oil and LP gas. Other commonly transported substances include a variety of acids, molten sulfur and chlorine. The major roadways also serve as evacuation routes through the county.

Pursuant to Section 339.64(2), Florida Statutes, the Commission, as part of its work program review process, is required to annually assess the progress that the Florida Transportation Commission Department and its transportation partners have made in realizing the goals of economic development, improved mobility, and increased intermodal connectivity of the Strategic Intermodal System (SIS). The US Highway 301 and State Road 100 are considered Strategic Intermodal System (SIS) Highways.

Land Use

Current Land Use

The land use patterns are influenced by the waterways and road system. The primary land uses in the area are agricultural, conservation, and forest, all of which are subject to disaster caused by weather phenomenon or wildfires, and consist of wildlife and water management areas, which are ecologically sensitive.

Future Land Use

The Future Land Use Pan Map identifies the classification areas for Bradford County; agricultural, conservation, environmentally sensitive, public, residential, commercial, and industrial.

The map classification identifies that most of the county is agricultural, conservation and public use. The jurisdictions specifics are identified for the Cities of Starke, Lawtey and Hampton, and for the Town of Brooker.

With the overall population growth rate expected to increase over the next five years and in reviewing the specifics on Bradford County's population data, the projected land use for the county will remain predominately agricultural, conservation and public use.

The Bradford County Future Land Use Map can be found by visiting the Bradford County website:

https://bradfordcounty.app.box.com/s/3ffx64fdlyh3xdhahhcm7psfuttezguz

During this planning cycle, Bradford County, nor its municipalities, have had any significant changes in development which have affected vulnerability to hazards.

Hazard, Risk, and Vulnerability Assessment

Section Requirements

§201.6 (c) (2) (i) - A description of the type, location, and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

§201.6 (c) (2) (ii) - A description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. All plans must also address NFIP insured structures that have been repetitively damaged by floods.

Section Introduction

The following section summarizes the results of the hazard identification and vulnerability assessment processes undertaken by the LMS Working Group members.

The intent of this section is to provide a summary compilation of the information gathered and the judgments made about the hazards threatening Bradford County, and the potential vulnerability to those hazards. This assessment will allow county officials and residents to make fully informed decisions as to the scope of the natural hazards, how severe the threat can be, and the priority to which they should mitigate those threats.

While many of the hazards discussed in this section are relevant to Bradford County and the participating jurisdictions, selected natural hazards that were noted in the previous LMS plan are not listed due to the geographic location and characteristics of the planning area (i.e. dam levee failure, landslides, earthquakes and tsunamis).

The Natural Hazards profiled in Section 4 for Bradford County are as follows:

- Flooding
- Sinkholes
- Hurricanes/Tropical Storms
- Tornadoes
- Thunderstorms/High Winds/ Lightning and Hailstorms
- Riverine Erosion
- Wildfires
- Drought/Heat Wave
- Winter Storms/Freezing Temperatures

Omitted Hazards

While there are other potential hazards that a jurisdiction may be faced with, the Bradford County LMS includes only the above hazards as these have previously been identified by the LMS Workgroup and being those which could potentially impact Bradford County.

Vulnerability Assessments

The LMS plan assesses the community's vulnerability of the hazard's impact on the community and its vulnerable structures on the following:

- Description of all types of natural hazards that can affect the community.

- Description of the probability, location, vulnerability, extent and impact of each identified hazard that can affect the jurisdiction.
- An assessment of each jurisdiction's risk where they vary from the risks facing the entire community for each identified hazard.
- An estimate of the potential dollar losses to vulnerable structures, if available.
- POLICY: As additional data becomes available, Bradford County will update the vulnerability in terms of the types and numbers of future buildings, infrastructure, and critical facilities located in the identified hazard areas.
- There are some changes to the identified natural hazards that were profiled in the previous LMS plan. These hazards were removed for this updated plan:
    - Dam/Levee Failure; Earthquake; Tsunami, and Landslide
- Modifications were made to these profiled natural hazards:
    - Flooding includes Flash Floods and Heavy Rain; Thunderstorms/Lightning was changed to Thunderstorms including High Winds, Lightning and Hailstorms; Drought was changed to Drought/Heat Wave. The other natural hazards will remain the same in this updated LMS plan as they have a consequence and impact on the county.

Probability Assessments

Throughout the hazard section, the probability of future events will be determined for the natural hazards. The probability or "chance of occurrence" is defined using an ordinal scale. The scale is as follows:

- Low = At least 1 occurrence every 10 years
- Medium = At least 1 occurrence every 3 years
- High = At least 1 occurrence every year

Extent Assessment

Throughout the hazard section, the extent statements will be determined for the hazards. The statements will be based on the range of magnitude or severity that the county could experience using a scientific scale or a quantitative measurement.

Types of scientific scales:

- Enhanced Fujita Scale for tornadoes
- Saffir-Simpson Hurricane Wind Scale for hurricanes/tropical storms/winds
- Palmer Drought Severity Index for droughts

Quantitative measurements were based on historical occurrences recorded:

- Flood depth for floods
- Length, width and height for sinkhole measurement (if available)

- Acres burned for wildfires
- Heat index for heat wave
- High, medium or low based on the previous event occurrence

Information from the following sources:

- Bradford County Sheriff's Office Emergency Management Division (BCSO EM);
- Bradford County Building, Zoning and Planning Office;
- National Oceanic and Atmospheric Administration (NOAA);
- National Climatic Data Center (NCDC);
- National Weather Service (NWS);
- Florida Forest Service;
- United States Geological Survey (USGS);
- United States Department of Agriculture;
- National Integrated Drought Information System (NIDIS);
- Federal Emergency Management Agency (FEMA);
- Florida Department of Environmental Protection (DEP);
- North Central Florida Regional Planning Council (NCFRPC), and
- The Suwannee River Water Management District (SRWMD).

Impact Assessment

When assessing the impact of a disaster on a community, this plan looks at past occurrences as well as estimated potential losses. To do so, hazards are profiled based on previous occurrence data. See the following table for the impact summary on the various structures and infrastructure for the county.

Impacts on Structures and Infrastructure from the Identified Hazards in Bradford

Impacts on Structures and Infrastructure from Identified Hazards	All Structures	Mobile Homes	Poorly Constructed Homes	Non-Elevated Homes	Telecommunications	Electrical Utilities	Water / Sewer Utilities	Roadways	Waterways	Agriculture	Economic Disruption	Environmental Damage
Flooding	X	X	X	X	X	X	X	X	X	X	X	X
Sinkholes	X	X	X	X			X	X		X	X	X
Hurricanes & Tropical Storms	X	X	X	X	X	X	X	X	X	X	X	X
Tornadoes	X	X	X	X	X	X		X		X	X	X
Thunderstorm/ Wind		X	X		X	X				X		
Lightning		X	X			X				X		
Hailstorms		X	X							X		
Erosion (Riverine and Stream)			X	X					X	X	X	X
Wildfires	X	X	X	X	X	X		X		X	X	X
Drought							X		X	X	X	X
Heat Wave							X			X		X
Winter Storm		X	X					X	X	X	X	X
Freeze		X	X		X	X		X	X	X	X	X

County Disaster Declarations History

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, commonly referred to as "the Stafford Act", defines a major disaster as "any natural catastrophe (including any hurricane, tornado, storm, high water, wind driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or

suffering caused thereby." The Stafford Act's Major Disaster Declaration authorizes the President of the United States to provide federal assistance to States following one of the specified events. The following table details Disaster Declarations in which Bradford County was included from September 2004 – December 2025.

Commented [BW27]: Removed "Major" as table shows Emergency and Major Disaster Declarations

Disasters Declarations for Bradford County (September 2004 – December 2025)

Declaration# Date	Incident Date Range	Hazard Event	Individual Assistance	Public Assistance
#1545 09/04/2004	09/03/2004-10/08/2004	Hurricane Frances	X	X
#1545 09/26/2004	09/24/2004-11/17/2004	Hurricane Jeanne	X	X
#3220 09/05/2005	8/29/2005-10/01/2005	Hurricane Katrina Evacuation		X
#2687 05/07/2007	05/07/2007-05/07/2007	Suwannee Fire Complex		X
#1785 08/24/2008	08/18/2008-09/12/2008	Tropical Storm Fay	X	X
#4068 07/03/2012	06/23/2012 - 07/26/2012	Tropical Storm Debby	X	X
#4283 10/08/2016	10/03/2016-10/19/2016	Hurricane Matthew	X	X
#4337 09/10/2017	09/04/2017 – 10/18/2017	Hurricane Irma	X	X
#4486 03/25/2020	01/20/2020 – 05/11/2023	COVID-19 Pandemic	X	X
#4673 09/29/2022	09/23/2022 – 11/04/2022	Hurricane Ian		X
#4680 12/13/2022	11/07/2022 – 11/30/2022	Hurricane Nicole		X
#4734 08/31/2023	08/27/2023 – 09/04/2023	Hurricane Idalia		X
#4806 08/10/2024	08/01/2024 – 08/27/2024	Hurricane Debby		X
#4828 09/28/2024	09/23/2024 – 10/07/2024	Hurricane Helene	X	X
#4834 10/11/2024	10/05/2024 – 11/02/2024	Hurricane Milton		X

Source: FEMA - www.fema.gov/disasters

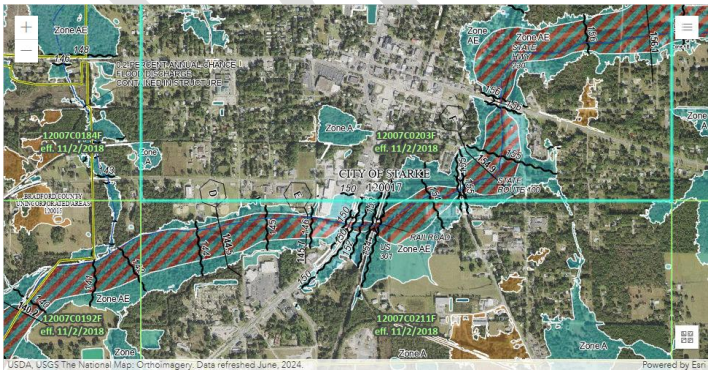
Natural Hazards

Flooding

The Federal Emergency Management Agency (FEMA) defines a flood as a "general and temporary condition of partial or complete inundation of 2 or more acres of normally dry land area or of 2 or more properties". Often times, this is the result of rising water in a existing waterway, such as a creek, river, pond, or lake during and after a heavy rainfall event. Several factors determine the severity of floods, including rainfall intensity, rainfall duration, topography, ground cover, and frequency of inundation.

Over time, Bradford County has certainly proved to be vulnerable to flooding, both in the urban and rural areas. For instance, the City of Starke is dissected by Alligator Creek, a body of water about 6 miles long that flows into Lake Rowell. Heavy rainfall events, such as Hurricane Irma in 2017, have produced flooding in the incorporated areas of Starke, damaging homes and displacing residents.

West of the City of Starke, Alligator Creek finds its way into Lake Rowell, where the water then feeds into Sampson Lake and Crosby Lake. These lakes are particularly susceptible to flooding and impact the many residents that call them home. The Bradford County Sheriff's Office Emergency Management Division tracks the levels of Sampson Lake via Suwannee River Water Management District's gauges in order to determine the likelihood of flooding. Over the years, several flood mitigation projects have been performed in an attempt to reduce the hazard posed.



FEMA Flood Map showing Alligator Creek flood zone in Starke, Florida. January 2026

Source: https://msc.fema.gov/portal/home

Bradford County has two identified zones that are categorized in the Special Flood Hazard Areas (SFHA): A and AE.

The SFHA is the land area covered by the floodwaters of the base flood on the NFIP map. The SFHA is the area where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The SFHA's in Bradford County are land areas that are at high risk for flooding and can be identified by A and AE zones areas within the county.

Flood Zone Definitions

Flood Zones	FEMA Definitions
Zone A	Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
Zone AE	Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Bradford County has 34 FEMA Flood Insurance Rate Maps (FIRMs) numbers:

- Zone A - All map numbers throughout the entire county.
- Zone AE - 13 map numbers are identified in zone AE:
- 12007C0145E, 12007C0165E, 12007C0185E, 12007C0190E, 12007C0195E, 12007C0230E, 12007C0235E, 12007C0255E, 12007C0260E, 12007C0280E, 12007C0290E, 12007C0295E, 12007C0310E

The public buildings located in the SFHA:

- Starke Elementary School
- HCA Florida Starke Emergency
- Bradford County Animal Control Shelter

Commented [BW28]: Changed from North Florida Regional Medical Center - Starke

FEMA Flood Insurance Study

In order to determine a community's risk to flood hazards, FEMA performs an engineered study called a Flood Insurance Survey (FIS). A FIS is a compilation and presentation of flood hazard areas along rivers, streams, coasts, and lakes within a community. A FIS is based on several pieces of information, including: historic river flow, storm tide, and rainfall data, meteorologic, topographic, hydrologic, and hydraulic data, open-space conditions, flood-control works, and development. The results of the FIS are shown on FEMA's flood maps called Flood Insurance Rate Maps (FIRMs), and in the accompanying description of the study called an FIS report.

(Source: https://www.fema.gov/flood-maps)

In November 2018, FEMA revised the FIS for Bradford County. The report details the study of the Sampson, Rowell, and Crosby lake area, as shown below.

> The detailed study area of Lake Sampson, Lake Crosby, and Lake Rowell is located southwest of the City of Starke, Bradford County, Florida south of SR 100 and north of County Road (CR) 225. Lake Sampson, Lake Crosby, and Lake Rowell are all interconnected with the outfall to the Sampson River on the southwest side of Lake Sampson. The total contributing drainage area for this basin associated with Lake Sampson, Lake Crosby, and Lake Rowell is approximately 52 square miles. Land use for the study area is mainly forested, agricultural, and pasture. In addition, Alligator Creek, which drains the City of Starke, also flows into the Lake Sampson, Lake Crosby, and Lake Rowell system. For the Lake Sampson, Lake Crosby, and Lake Rowell areas, Streamline Technologies ICPR v.3 unsteady flow model was used to estimate flood discharges and elevations for a series of flood frequencies including the 10, 2, 1, and

(Source: https://www.mysuwanneeriver.com/DocumentCenter/View/8662/Flood--Insurance-Study---Bradford?bidId=)

Based on this, the report was able to put together a table summarizing the projected still water elevation at frequencies of 10%, 2%, 1%, and 0.2%. This data allows us to see, based on NAVD88 elevation, when flooding of the particular waterways could occur. For instance, we see that the backwater area north of Lake Sampson has a 10% annual chance of reaching elevations of 135.7 feet (NAVD88). The results are shown in the table below:

Flooding Source and Location	Elevation (feet NAVD88)			
	10-Percent	2-Percent	1-Percent	0.2 Percent
LAKE SANTA FE				
Along shoreline	142.2	142.8	143.0	143.7
LITTLE LAKE SANTA FE				

Along shoreline	142.2	142.8	143.0	143.7
LAKE SAMPSON				
Along shoreline	133.6	134.2	134.5	135.2
Backwater Area (North)	135.7	136.6	137.0	137.7
LAKE CROSBY				
Along shoreline	133.8	134.5	134.6	135.2
LAKE ROWELL				
Along shoreline	133.6	134.2	134.5	135.2

Historical Data

Throughout the years, Bradford County has been prone to flooding, with some being severe. Major flooding occurred during the 2017 landfall of Hurricane Irma. In fact, Suwannee River Water Management District's monitoring stations at Alligator Creek, Sampson River, and Graham, as well as others in nearby counties, registered historic high data during that event. Sampson, Crosby, and Rowell lakes all exceeded their flood stages, damaging homes and displacing residents. According to a Bradford County Emergency Management After-Action Report from Hurricane Irma, rainfall totals were estimated to be in excess of 18 inches. Due to lakeside flooding, approximately 16 residents of the Sampson Lake area were evacuated/rescued by the Bradford County Sheriff's Office and The Florida National Guard via HWRVs (High Water Rescue Vehicles). Major flooding occurred in three different apartment complexes located within the city limits of Starke: Heritage Village Apartments, Orangewood Apartments, and Pine Forest Apartments.

File Photo – Bradford County Sheriff's Office Emergency Management Division – Hurricane Irma Flooding

Flood Occurrences

According to a records search of the National Oceanic and Atmospheric Administration (NOAA), there have been 12 events documented in Bradford County regarding flooding. The data found indicates the following flood events since January 1, 1950:

LOCATION	DATE
COUNTYWIDE	2/17/1998
COUNTYWIDE	3/1/1998
LAWTEY	10/4/2004
THERESSA	10/4/2007
LINCOLN CITY	1/21/2010
LAKE SAMPSON	6/25/2012
STARKE	5/3/2013
STARKE	5/3/2013
LAWTEY	8/19/2015
LAWTEY	8/19/2015
STARKE	8/30/2015
STARKE	9/10/2017
STARKE	9/21/2021
STARKE	8/28/2022
LINCOLN CITY	7/23/2024

Commented [BW29]: Updated 2026

02/17/1998 – Flash flood event covering 15 counties. Resulted in road damage with 65 secondary and dirt road being impassible.

03/01/1998 – Flooding that was the result of El Nino encompassing 15 counties. More than 2,800 homes and 175 business were destroyed.

10/04/2004 – Flash flood event that occurred in Lawtey, Bradford County, Florida. Bradford County Emergency Management reported 3 roads were closed off due to flooding near CR 225. Several homes were isolated, and the rising water was possibly due to overflow from a nearby retention pond. The Bradford County Sheriff's Office reported sides streets were impassable and closed due to the flooding. Initially, county EM officials reported a possible levee failure caused the rising waters, then it was later determined that runoff from previous rainfall was infiltrating the area.

10/04/2004 – Flash flood event that occurred in Theressa, Bradford County, Florida. Bradford

01/21/2010 – A flooding event that occurred in Bradford County and multiple other locations when a strong storm system tracked across the deep south while the mid and upper level low moved over the Mississippi River Valley. A surface low developed over South Georgia in the afternoon, and a trailing squall line moved across the area in the afternoon and evening. Strong low-level shear, including a 50 to 60 knot low level jet, combined with adequate instability to produce widespread severe storms across the area. Alligator Creek overflowed in Starke and caused extensive flooding in Starke. At least one home was damaged due to the creek water. Doppler radar estimated 4 to 5 inches of rainfall within 24 hours in the area.

06/25/2012 - Tropical Storm Debby moved across the area from the northeast Gulf of Mexico. Deep tropical moisture combined with a stalled frontal boundary across north Florida over a period of several days caused extensive, flooding rainfall, as well as historic river flooding on the St. Mary's River. Widespread flooding occurred across Starke. Bradford County Emergency Management reported several roads under water in the city. Alligator Creek overflowed with several homes threatened by flood waters. U.S. Highway 301 was closed from State Road 16 to Market Road due to flooding. Additional flooding concerns included North Water Street, East Mimosa Drive and Bradford Drive in Starke. Flood control gates on Lake Sampson were opened due to high lake levels.

05/03/2013 – Flooding occurred due to heavy rainfall. All four lanes of Highway 301 in Starke were closed to flooding between Market Road and State Road 16. Water and Laura Streets also had major flooding. Many other roads were closed in sections of the city due to flooding.

05/03/2013 – Flooding occurred due to heavy rainfall. Minor flooding of businesses and residences was reported along Highway 301 from Starke to Lawtey. Several roads were closed due to flood waters.

08/19/2015 – Flooding event in Lawtey, Bradford County, Florida. Heavy rainfall caused flooding near Carter Road along Highway 301. Part of Highway 301 had to be closed due to flooding.

08/19/2015 – Flooding event in Lawtey, Bradford County, Florida due to severe thunderstorms. Flooded roadways including parts of Highway 301, Grove Street and Carter Road were closed due to flooding.

08/30/2015 – Flooding event that impacted Bradford County, Florida. Laura Street near Alligator Creek was closed due to high water.

09/10/2017 – Flooding event that occurred in Bradford County, Florida when Hurricane Irma impacted the state. Flooding was present in multiple locations throughout the county. According to a Bradford County Emergency Management After-Action Report from Hurricane Irma, rainfall totals were estimated to be in excess of 18 inches. Due to lakeside flooding, approximately 16 residents of the Sampson Lake area were evacuated/rescued by the Bradford County Sheriff's Office and The Florida National Guard via HWRVs (High Water Rescue Vehicles). Major flooding occurred in three different apartment complexes located within the city limits of Starke: Heritage Village Apartments, Orangewood Apartments, and Pine Forest Apartments.

09/21/2021 - A trough of low pressure extended across the region with sea breezes triggering numerous showers and storms over a moist and diurnally unstable airmass. Sea breeze mergers focused the higher rain chances across inland areas where locally heavy rainfall occurred. One side of Highway 301 was flooded in front of the Bradford County Fairgrounds. The road had to be temporarily closed.

08/28/2022 - A trough across north-central Florida lifted northward through the day. An anomalously moist airmass (PWATs near 2.2 inches) remained over the area. Weak east-southeasterly flow led to a dominant Atlantic coast sea breeze shifting inland in the afternoon. Heavy rainfall amounts from thunderstorms occurred across portions of northeast Florida near the lifting trough axis and sea breeze boundary convergence enhanced by a passing upper shortwave. Weak northeasterly steering flow to the north of the trough then drove storms southwestward in the late afternoon and early evening. These slow-moving storms brought about 4.5 to 6 inches of rainfall causing multiple streets to flood and water to encroach and enter buildings in the HWY 301 and I-75 corridors. The Bradford County Sheriff's Office reported flooding in several areas of Starke. Bradford County EM reported a closure of all directions on US-301 and FL-100 in Starke due to flooded roadways. Broadcast media reported that Bradford middle school canceled classes on Tuesday Aug 30th and Wednesday Aug 31st due to flood damage inside the school caused by heavy rainfall that occurred on Aug 28th. Flood water entered the main building which caused water damage in multiple classrooms.

07/23/2024 - Prevailing SSE steering flow focused the daytime sea breeze and boundary collisions across interior NE FL between the I-75 and Highway 301 corridors. Locally gusty winds and heavy, flooding rainfall occurred. Heavy rainfall produced significant road flooding in Starke. Highway 301 had to be closed between West Weldon Street to Davis Street due to flooding across the road. Alligator Creek, a tributary of the Santa Fe River, that goes through Starke quickly rose into the Minor Flood Stage. Radar estimated 2-3 inches of rainfall occurred across the city limits.

Commented [BW30]: Updated 2026

Sources:

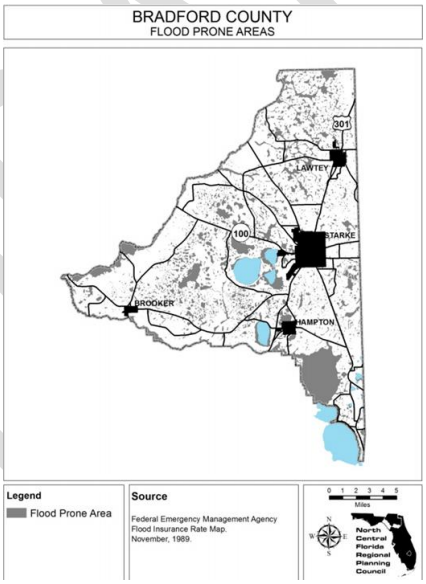
1) https://www.ncei.noaa.gov/stormevents/listevents.jsp?eventType=%28Z%29+Flood&beginDate_mm=09&beginDate_dd=01&beginDate_yyyy=2017&endDate_mm=12&endDate_dd=31&endDate_yyyy=2025&county=BRADFORD%3A7&hailfilter=0.00&tornfilter=0&windfilter=000&sort=DT&submitbutton=Search&statefips=12%2CFLORIDA

2) *Bradford County Sheriff's Office Emergency Management Division Files*

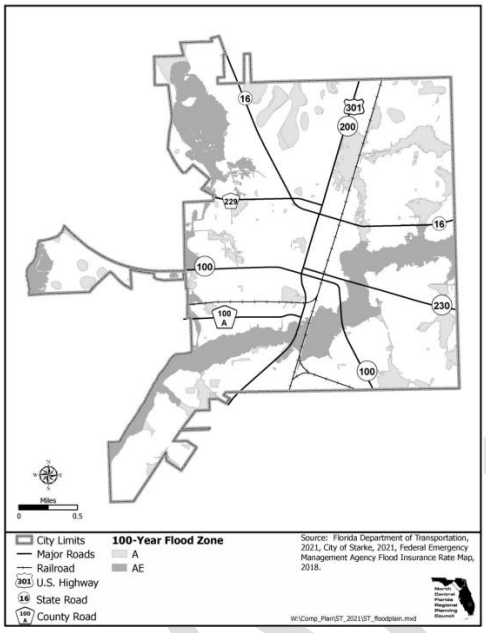
Vulnerability

Through prior events, we have seen Bradford County's vulnerability to flooding. Bradford County has numerous residents that reside in FEMA designated flooded zones. In addition, the terrain of Bradford County causes it to be prone to flooding.

The Bradford County Comprehensive Plan (2012 Edition) includes the following attachment detailing the county's flood prone areas:



In addition, the City of Starke Comprehensive Plan (2022 Edition) also details the flood prone areas. The City of Starke is the county's largest municipality and the county seat. Flood prone areas of the City of Starke are shown below:



Inland Flood Hazard, Population

County	100-Year Floodplain	500-Year Floodplain
Bradford	3,223	3,223

Source: 2023 State of Florida Enhanced Hazard Mitigation Plan

Facility Values within 100-Year Inland Flood Plain

County	100-Year Floodplain	500-Year Floodplain
Bradford	Less Than $10 Million	Less Than $10 Million

Source: 2023 State of Florida Enhanced Hazard Mitigation Plan

In addition to the data above, the 2016 Bradford County LMS reported that one fire station and one school, along with 56 other facilities, totaling $17.09 Million were located in the 100-year floodplain.

Probability – The probability of flooding is high for the entire county.

Commented [BW31]: While the documented occurrences are 1 flood event every 1.86 years, localized/undocumented occurrences would prove higher.

Location – The areas in and around the Santa Fe River, Santa Fe Lake, Lake Sampson, Lake Crosby, Lake Rowell, and Alligator Creek are subject to flooding.

Extent – According to gauges maintained by the Suwannee River Water Management District, worst-case scenario flooding in recent years occurred during Hurricane Irma in September 2017. Consider the chart below with data from several local gauges, displaying flood stage and record highs (in NAVD88):

Gauge Location	Flood	Year	Record
Alligator Creek below US 301 in Starke	139	2017	147.88
Sampson River at CR 225	132	2017	135.09
Graham (CR 225 Bridge)	113	2017	118.98
New River near Lake Butler	91	2017	98.55
Worthington Springs	59	2017	71.17

Source: http://www.mysuwanneeriver.org/realtime/river-levels.php

Impact – Previous flooding in Bradford County suggests that future flooding could occur in the areas of Santa Fe River, Santa Fe Lake, Lake Sampson, Lake Crosby, Lake Rowell, Alligator Creek, and Sampson River. Flooding has contributed to displaced residents, road closures, utility outages, and structural damage.

Sinkholes

According to the Florida Department of Environmental Protection, sinkholes form due to the collapse of surface sediments into underground voids and cavities in the limestone bedrock. Sinkholes form silently over time until the collapse and erosion may continue for some time after.

The University of Florida produced the following tips for spotting potential sinkholes:

- Structural cracks in walls and floors
- Muddy well water
- Doors and windows that won't close properly
- Buried items, such as fence post, slowly becoming exposed
- Formation of small ponds

According to the 2018 State of Florida Enhanced Hazard Mitigation Plan, sinkholes can be triggered by a variety of factors, to include drought, heavy rain, significant groundwater withdrawal, or heavy infrastructure.

Brooks Sinkhole

One of Florida's most notable sinkholes, *Brooks Sinkhole*, is located in Bradford County. Found just outside of the small town of Brooker, Florida, Brooks Sinkhole is an approximate 225 ft. long, 175 ft. wide, and 85 ft. deep cover-collapse sinkhole. The opening's discovery is unknown, but the sinkhole has become the subject of studies and project by different entities.

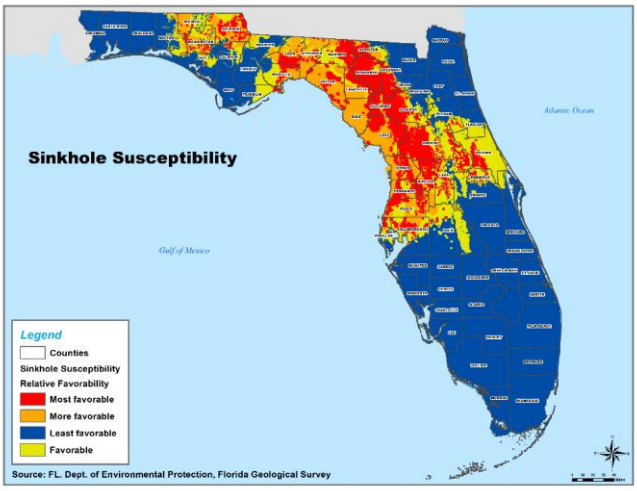
Vulnerability

Bradford County does have some vulnerability in regards to sinkholes. Potentially, the county could be subjected to another cover-collapse sinkhole, such as Brooks Sinkhole. Per the State's 2022 Hazard Mitigation Plan, Bradford County has a low risk of a sinkhole hazard, as indicated by the graphic below.

Sinkholes are often isolated incidents, thus reducing vulnerability to large populations. However, a sinkhole occurring in an urban area or around residential structures may be more likely to endanger people or property.

Additional Occurrences

No additional occurrences are known for sinkholes in Bradford County



Source: https://flshmp-floridadisaster.hub.arcgis.com/pages/sinkhole

Probability – The probability of sinkholes is low for the entire county.

Commented [BW32]: Added 2026

Location – All of Bradford County's jurisdictional boundaries, to include its municipalities, could be susceptible to sinkholes.

Extent – The worst-case scenario would be another sinkhole such as Brooks Sinkhole.

Impact – A sinkhole opening, while unlikely, could pose effects to roadways, waterways, utilities, infrastructure, homes, businesses, and other structures. Impacts could range from minor to disastrous.

Hurricanes/Tropical Storms

When reviewing the hazards faced by Floridians, hurricanes and tropical storms often top the list. Every year, between June and November, we often watch as meteorologists give updates and forecasts on tropical systems as they move towards the United States. The National Hurricane Center gives the following characteristics to tropical cyclones:

- A warm-core non-frontal synoptic-scale cyclone
- Originating over tropical or subtropical waters
- With organized deep convection
- And a closed surface wind circulation about a well-defined center

These storms, known for their sustained wind and heavy rainfall, have produced many of the natural disasters faced by the State. Tropical cyclones are classified based upon their windspeeds, known as the Saffir-Simpson Wind Scale, as follows:

- Tropical Depression: Maximum sustained winds of 38 MPH or less.
- Tropical Storm: Maximum sustained winds of 39 to 73 MPH.
- Hurricane: A tropical cyclone with maximum sustained winds of 74 MPH or higher.
    - Category 1: 74-95 MPH
    - Category 2: 96-110 MPH
    - Category 3: 111-129 MPH
    - Category 4: 130-156 MPH
    - Category 5: 157+ MPH

- Categories 3-5 are known as Major Hurricanes.

Hurricane and Tropical Storm Occurrences

Date	Time	Occurrence
09/04/2004	21:00	Tropical Storm
09/25/2004	12:00	Tropical Storm
06/13/2006	06:00	Tropical Storm
06/06/2013	20:30	Tropical Storm
06/06/2016	16:00	Tropical Storm
09/01/2016	07:00	Tropical Storm
10/06/2016	07:00	Tropical Storm
09/10/2017	09:35	Tropical Storm
08/30/2023	06:00	Tropical Storm

08/04/2024	12:00	Tropical Storm
09/26/2024	11:00	Tropical Storm
10/09/2024	19:00	Tropical Storm

Commented [BW33]: Updated 2026

Current data indicates that there are 3,096 property records identified as a mobile home in Bradford County. Mobile homes, along with others, are particularly vulnerable to damage from tropical cyclones. Since 1953, Bradford County has been included in 15 Major Disaster Declarations, of which 13 of them were due to hurricanes/tropical storms.

Vulnerability

Vulnerability to hurricanes can be defined as the likelihood of experiencing harm to people of property by way of such a storm. Due to Florida's geographical location, it is exceptionally vulnerable to hurricanes. While Bradford County is inland and does not take the direct impact, the remnants of hurricanes and tropical storms often affect our area.

Due to the size and strength of hurricanes and tropical storms, the entire county is vulnerable to these storms. Of particular concern is the rainfall, wind, lighting, flooding, and tornadoes that may be the result of these events. Extensive damage can occur to buildings, infrastructure, roadways, and property, and people can suffer minor to fatal injuries. Power and utilities may be lost for significant amount of time and access to basic needs may be interrupted. In addition, Bradford County has a high number of people living in mobile homes and in low-lying areas. This adds to the vulnerability of residents during tropical cyclone events.

Probability – The probability of a hurricane or tropical storm is medium.

Commented [BW34]: Medium: 1 occurrence every 1.83 years.

Location - The storms are very widespread; therefore, the entire county is at high risk.

Extent – The worst-case scenario for a tropical cyclone would be a Category 5 Hurricane. With winds of over 157 MPH, catastrophic damage is likely to occur throughout the County. Roadways will likely not be traversable, thus resulting in an interruption to emergency services. Power and utility outages would likely be prolonged and most of the area would be uninhabitable. Bradford County, being particularly suspectable to flooding, would likely see residents displaced or trapped due to flooding. This would also affect roadways. The cost of the damage would be incredibly high.

Impact – As stated, the impact of a hurricane or tropical storm could result in harm to residents or damage to buildings and infrastructure. Further impacts include the economic

impact of closed/disrupted businesses, the cost of recovery, and the destruction of products, particularly agriculture.

Tornadoes

The National Weather Service defines a tornado as a "violently rotating column of air extending from the base of a thunderstorm down to the ground." Among other natural hazards, tornadoes can be one of the most destructive. According to statistics from the Storm Prediction Center, 76 deaths occurred in 2020 due to tornadoes. Additionally, about 1,200 tornadoes hit the United States on a yearly basis.

While meteorologists cannot determine all the exact causes of tornadoes, it's been shown that they develop from supercells, which are rotating thunderstorms. Supercells, which can also produce hail, damaging wind, lightning, and flash floods, are defined by well-defined radar circulation, known as a mesocyclone.

Several factors make tornadoes so dangerous. Some of these include wind speeds up to 300 MPH, as well as the swiftness with which they develop. Tornadoes can give little advanced warning, especially at night. In addition, tornadoes can come from any direction. While they do display directional tendencies, some tornadoes have been observed to change direction mid-path.

Enhanced Fujita Scale

Since 2007, tornadoes have been assigned a "rating" based on intensity via the Enhanced Fujita Scale. Based on wind speeds and related damages, tornadoes are assigned a rating of "EF0" to "EF5", as follows:

EF SCALE	
EF Rating	**3 Second Gust**
0	65-85 MPH
1	86-110 MPH
2	111-135 MPH
3	136-165 MPH
4	166-200 MPH
5	Over 200 MPH

In order to rate a tornado on the Enhanced Fujita Scale, meteorologists preform damage surveys. By using damage indicators and degrees of damage, the survey produces data which allows the tornado to be rated.

Bradford County Tornado Occurrences

Date	Rating
2/7/1971	F2
3/28/1972	F1
2/6/1975	F1
7/21/1976	F1
8/10/1977	F1
5/4/1978	F0
7/14/1980	F1
7/12/1982	F0
6/7/1983	F1
7/23/1987	F0
6/10/1988	F0
1/3/1994	F0
3/30/2000	F0
8/12/2004	F1
8/25/2006	F0
1/21/2010	EF1
9/12/2015	EF0
2/7/2017	EF1
10/10/2018	EF0
12/24/2020	EF1
12/08/2021	EF1

Vulnerability

The vulnerability to tornado events can be defined as to the extent to which people will experience harm and property will be damaged from the natural hazard. Bradford County is most vulnerable to these wind disasters due to a high concentration of the population residing in mobile homes.

In the event of a tornado, the potential for damage to mobile homes is significant. This potential increases with various factors, such as the proximity of the storm event to the structure, the age, and the construction quality.

The most damaging tornado that affected the population and structures in Bradford was on 1/21/2010. An EF1 tornado touched down around 1:22 PM in Bradford County. The path width varies from 200 to 400 yards, and the path length was around 9 to possibly 10 miles. Numerous outbuildings were damaged and destroyed. There was mostly minor damage to substantial structures. At least a dozen homes were damaged along CR 229. There were 25

homes that suffered minor damage and 28 that had major damage. A total of 23 homes were destroyed. The Emergency Management Director estimated $2.5 to $3 million dollars in damages to homes and about $500,000 in damages to outbuildings. The tornado traveled just north of due east and lifted in western Clay County where the path may have gone over the Camp Blanding National Guard Auxiliary.

Probability - The probability of Bradford County being affected by a tornado each year is medium.

Commented [BW35]: Medium: 1 occurrence every 2.6 years.

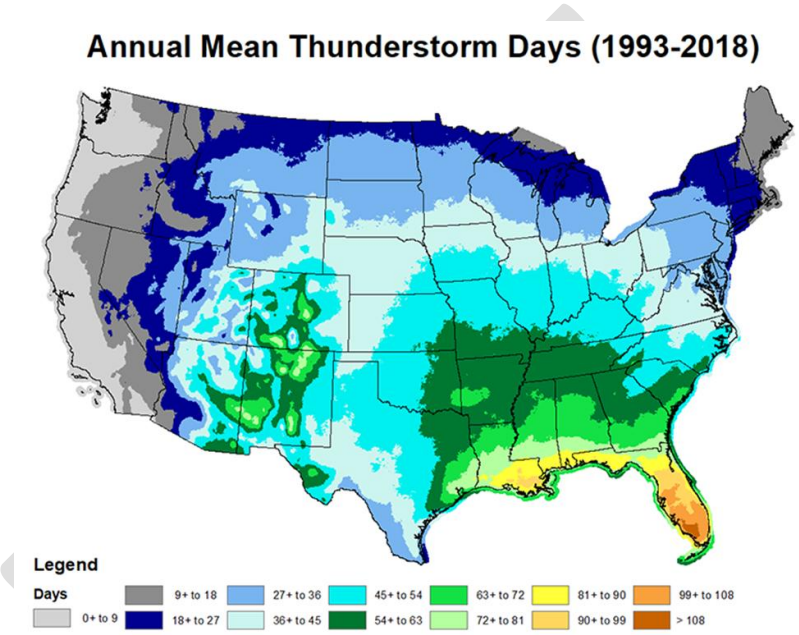
Location - The entire county is at risk of a tornado.

Extent - The worst-case scenario would be an F5 tornado, categorized by destructive winds of 261 – 318 miles per hour. A tornado of this rating would cause complete devastation of homes, businesses, churches, schools, and government buildings, bring trees and power lines down, and the infrastructure destroyed.

Impact – Destruction and damage to residences, business, outbuildings, and infrastructure; damage to public utilities; downed trees, and; economic impacts related to destroyed businesses and products and the cost of response & recovery.

Thunderstorms (includes damaging winds, lightning, and hailstorms)

A thunderstorm is defined as a rain-bearing cloud that also produces lightning. Known for producing dangerous conditions such as tornadoes, damaging winds, hail, and flash flooding, thunderstorm development is favorable in warm, humid conditions, making Florida a likely host to these storms. In fact, as indicated by the graphic below, data by the National Weather Service indicates that from 1993-2018 Florida had the highest number of "thunder" days per year (80 to 105+).



Source: https://www.noaa.gov/jetstream/thunderstorms

Thunderstorm formation requires three ingredients: moisture, instability, and a lifting mechanism. Florida, being bordered by the warm waters of the Gulf of Mexico and the Atlantic Ocean, has higher moisture levels in the atmosphere.

Thunderstorm Hazards

Tornadoes – A violently rotating column of air extending from the base of a thunderstorm down to the ground. As stated in the tornado section above, Bradford County is vulnerable to tornadoes based on Florida's overall vulnerability.

Damaging Winds – Known as "straight-line winds", the damage caused by this hazard is often confused with tornadic activity. Damaging winds are categorized as microbursts or macrobursts. Depending on the type of burst, these winds can reach speeds of up to 168 MPH.

Hail – According to the National Weather Service, hail is precipitation that is formed when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere. While Florida touts the most thunderstorms, hail is less common than in other places due to the height of the freezing level compared to other states.

Flash Floods – Mostly caused by slow moving thunderstorms, repeated thunderstorms, or tropical systems, flash floods are among the top fatality-producing weather hazards, second only to heat. Intensity is effected based on duration of rain, topography, soil conditions, and ground cover.

Lightning – As defined by the National Ocean and Atmospheric Administration, lighting is a rapid discharge of electrical energy in the atmosphere. The United States experiences about 25 million lightning strikes per year.

Occurrences

According to data found on the National Ocean and Atmospheric Administration's Storm Event Database, Bradford County has been subjected to 122 events listed as "Thunderstorm Wind" since January 1, 1050. These occurrences, according to that data, have produced an estimated $99,200 in damage.

(*Source: https://www.ncdc.noaa.gov/stormevents/)*

Vulnerability

The vulnerability to thunderstorm, lightning and hailstorm events can be defined as to the extent to which people will experience harm and property will be damaged from the natural hazard. Bradford County is vulnerable to these wind disasters due to a high concentration of the population residing in mobile homes.

Each jurisdiction has been affected by thunderstorm/wind and hailstorm occurrences. The entire unincorporated and incorporated area residents of Bradford County especially the mobile home, which consist of 30% of the residential structures and the poorly constructed homes residents, would have the most vulnerability severe thunderstorms, strong winds and hailstorms.

In the event of a strong wind and rain event, the potential for damage to mobile homes is significant. This potential increases with various factors, such as the proximity of the storm event to the structure, the age, and the construction quality. And as noted, the entire planning community has been affected by thunderstorm, strong winds and hailstorm events.

Probability – The probability for a thunderstorm is high for the entire county.

Location – The entire county is at risk for a thunderstorm.

Extent – The worst-case scenario for a thunderstorm includes casualties or property damage due to flash flooding, tornadoes, large hail, or lighting strikes.

Impact – Due to their many hazards, thunderstorms can have effects on both people and property. People are at risk due to lightning strikes or flash flooding that can be caused by severe thunderstorms. Property can also be at risk. Flash flooding, lighting, hail, or high wind gusts may cause damage to structures or infrastructure. Access to rural areas of the county may be impeded by damage to unpaved roadways. Urban areas can be susceptible to flash flooding.

Riverine/Stream Erosion

Bradford County is home to numerous rivers and streams. In fact, the majority of the Western border of the county is made up of the Santa Fe River and New River. In addition to several smaller creeks, the county is dissected by Alligator Creek, Water Oak Creek, and Sampson River. These waterways are an integral part of Bradford County's water basins and also attract homesites and recreation. However, as with any river or stream, Bradford County is subject to riverine/stream erosion.

Defined by the Federal Emergency Management Agency as the "collapse, undermining or subsidence of land along the shore of a lake or other body of water", erosion can contribute to the hazards face by many structures built along waterways. Erosion can cause loss to both land or development, with the worst case scenario being structural collapse. Riverine erosion can, and in the past has, contributed to damage of paved roads, along with other infrastructure.

Roadway damage cause by erosion due to flooding during Hurricane Irma, 2017 – *Bradford County File Photo*

Riverine Erosion can possibly occur in the county as the result of floods and heavy rains. The Santa Fe River binds Bradford County to the northwest side of the county by the New River and to the south of the county. Numerous smaller rivers and streams are located within the county making the areas closer to the rivers more susceptible to riverine erosion.

The loss of soils due to riverine erosion under paved roads, bridge abutments and approaches, bridge pilings and other structural pilings, can cause structural failures that endanger public safety. Washouts of boat ramps can restrict access for emergency personnel. Riverine erosion can increase the debris flow of trees and structures like docks

that can pile up against structures in the floodway, increasing stresses on the pilings and possibly contributing to failures.

Occurrences

No specific information was found on Riverine/Stream Erosion for Bradford County. However, roadway erosion has been seen, such as during Hurricane Irma in 2017, due to flooding during heavy rainfall events. Damage to structures is believed to have been mitigated by the setback requirements set forth in the Future Land Use Element in the Bradford County Comprehensive Plan, which states that there shall be a 50-foot setback from a lake, pond, or wetland.

Vulnerability

Due to the above-mentioned setback requirements, as well as the slow rate that erosion normally occurs, the vulnerability is relatively low. However, there is some vulnerability to the county's population that live along the Santa Fe River, near Alligator Creek, and the New River to riverine erosion and as noted above might have limited access to a bridge or road that erodes or washes out. Additionally, erosion can increase the debris flow of trees and structures like docks that can pile up against structures in the floodway, increasing stresses on the pilings and possibly contributing to failures.

Probability - Erosion probability is low for the planning area.

Location – While the entire county, including municipalities, are susceptible to erosion, areas located near the banks of creeks and rivers are most vulnerable to erosion. Specifically, areas around Lakes Sampson, Rowell, Crosby, Hampton, and Santa Fe, as well as Alligator Creek, Water Oak Creek, the Santa Fe River, and New River are at risk of erosion.

Extent – The worst case scenario for a riverine erosion event would include erosion causing damage to infrastructure or residences.

Impact - Structures and infrastructure could be impacted by a riverine erosion event if a bridge collapsed and residents were unable to use the bridge or roads for transportation.

Loss of soils due to riverine erosion under paved roads, bridge abutments and approaches, bridge pilings and other structural pilings, can cause structural failures that endanger public safety. Washouts of boat ramps can restrict access for emergency personnel.

Riverine erosion can increase the debris flow of trees and structures like docks that can pile up against structures in the floodway, increasing stresses on the pilings and possibly contributing to failures. The impact from riverine erosion would affect the unincorporated

area of the county and residents that live close by and could potentially cause considerable damage.

Wildfire

A wildfire is any uncontrolled fire in combustible vegetation that occurs in the countryside or a wilderness area. Other names such as brush fire, bushfire, forest fire, grass fire, hill fire, peat fire, vegetation fire, veldfire and wildland fire may be used to describe the same phenomenon depending on the type of vegetation being burned.

Wildfires can be ignited by both natural and manmade causes. Sources of wildfires range from improper burning to lightning strikes. No matter the cause, their ability to spread can be troublesome for responders attempting to contain and control these blazes.

According to data reported by the National Ocean and Atmospheric Administration, there have been four documented wildfires in Bradford County. They are as follows:

1. Florida's wildfires began on May 25, 1998, and burnt parts of Northeast Florida. A large area of high pressure settled over Florida in the late Spring, keeping the traditional thunderstorms from forming. Lightning sparked most of the brush fires in hard-to-reach dry woods. Total cost across Northeast Florida will exceed $200 million. It was reported that approximately 2100 acres burned, two homes were destroyed, and four vehicles destroyed or damaged.

2. Lightning initiated three fires in the vicinity of Camp Blanding (Clay County), Florida on Monday afternoon, May 7th, 2007. Strong winds quickly combined those fires into a single blaze with over 5,000 acres burning by Monday night. The fire area extended from the Starke area to near Waldo in northeastern Alachua County. By Tuesday 700 homes were evacuated with over 1,000 persons displaced from their homes. The fire continued to grow eventually reaching 14,626 acres.

3. The Santa Fe Wildfire was about 5 miles WNW of Lake Geneva in Bradford County. On July 1st, 2011, the fire had burned about 5,679 acres.

4. On April 27th, 2017, dry and unseasonably warm conditions fueled brush fires. Long term drought conditions were realized across much of NE Florida. A 200-acre brush fire was 100% contained in the area of SE 109th Street and SE 38th Avenue in Hampton. The fire burned on land owned by Two Buck Hunting Club.

(Source: https://www.ncdc.noaa.gov/stormevents/)

The Florida Forest Service is another source of information regarding wildfire. During the time period of January 1, 2021 and December 31, 2025, the Florida Forest Service documented 107 total fires, consuming 646.58 acres.

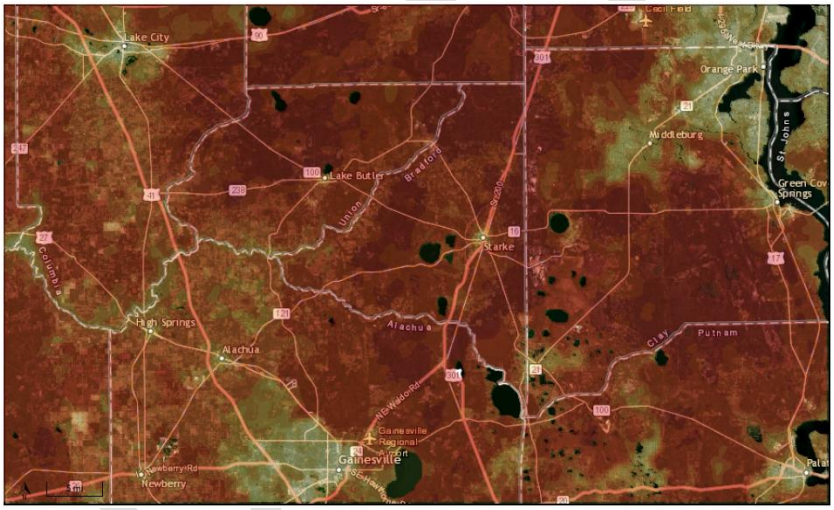
Vulnerability

Bradford County is very vulnerable to wildfires due to the extent of forestry, conservation and agricultural land. Bradford County land use is predominately agriculture with forest or private timber company land. Any type of drought condition would augment the possibility of a major forest fire thereby significantly impacting the county.

Bradford County is subject to wildland and forest like fires. Woodland is a major natural resource in Bradford County and forestry and forest products are an important part of the local economy. And although Bradford County Fire Rescue responds to many wild land (brush) fire calls annually, property losses are kept to a minimum in the rural areas.

Commented [BW36]: Update from Department

Bradford County, Florida "Burn Probability"



Source: Southern Wildfire Risk Assessment

Probability - The probability of a wildfire is medium for the entire county.

Commented [BW37]: Updated from "low-medium"

Location – The entire county is susceptible to wildfire. However, the unincorporated areas of the county are particularly vulnerable due to being heavily wooded with dense vegetation.

Extent – Wildfires can cause millions of dollars in damage and loss of life. The extent of a wildfire could be measure by size (acres burned) or damage (financial loss). The worst-case scenario for a wildfire would be interaction with a heavily populated area, such as in the 1998 Wildfire reference above where it is estimated that there was $200 Million in damages.

Impact - Residents, structures, and infrastructure are all at risk of being impacted by a wildfire. In addition to damaging homes and businesses, wildfires can cause widespread evacuations, resulting in displaced residents and loss of revenue.

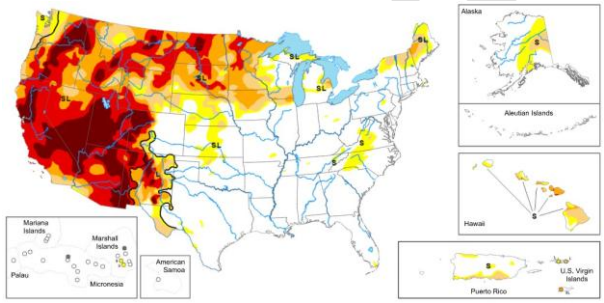
Drought and Heat Wave

When considering all of the natural hazards that a community faces, it is often easy to overlook drought. According to the University of Nebraska's National Drought Mitigation Center, drought is defined a "deficiency of precipitation over an extended period of time(usually a season or more), resulting in a water shortage." NDMC indicates that part of drought's reputation is due to the fact that it affects regions differently. In determining a drought, it is often subjectively compared to the region's normal rainfall conditions.

A similar hazard to drought is a heatwave. The National Ocean and Atmospheric Administration identifies a heatwave as "a period of unusually hot weather that typically lasts two or more days.". NOAA goes on to say that, to be considered a heat wave, "the temperatures have to be outside the historical averages for a given area."

While functionally different, drought and heat wave have the ability to function together or independently. These hazards can also give rise to the potential for additional hazards, such as wildfire or dust storms.

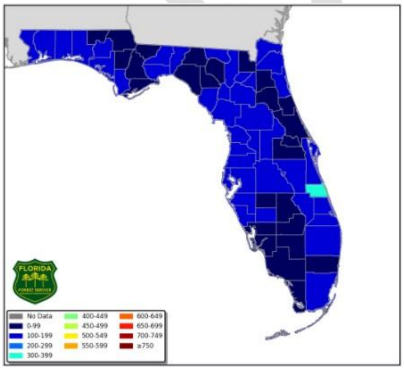
Measuring Drought & Heath Wave



The US Drought Monitor, maintained by the National Drought Mitigation Center, identifies general areas of drought and labels them by intensity.

Source:

https://droughtmonitor.unl.edu/

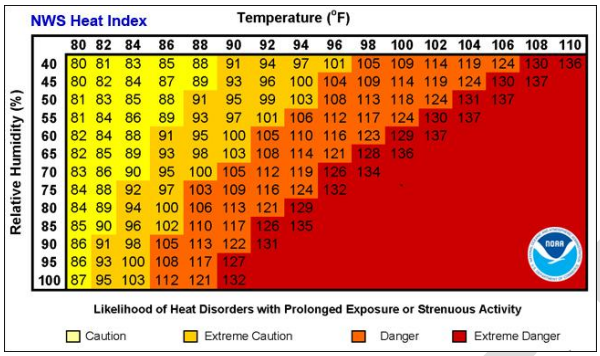


The Keetch-Byram Drought Index, as maintained by the Florida Forest Service, is a continuous reference scale for estimating the dryness of the soil and duff layers.

The range of the index is determined by assuming that there is 8 inches of moisture in a saturated soil that is readily available to the vegetation.

Source:

http://fireweather.fdacs.gov/wx/kbdi_index.html



This Heat Index Chart, produced by the National Weather Service, indicates the "feels-like" temperature given the actual temperature and the relative humidity.

Source:

https://www.weather.gov/safety/heat-index

Drought & Heat Occurrences

In previous versions of the Bradford County Local Mitigation Strategy, the following drought occurrences have reported:

(2011) – In Florida, there was a recorded period of time in the months of January, April, May, June, July, August, September, October, November and December that had periods of moderate, severe and extreme drought. Bradford County experienced severe drought in January, July, August, September, October, November, and December

(2012) – In Florida, the months of January, February, March, April, May, and June had recorded periods of moderate, severe, and extreme drought. Bradford County experienced extreme drought in late April and May, severe drought in January, February, March, April, and moderate drought in the beginning of June.

Additionally, the National Ocean and Atmospheric Administration documents one drought event, dated 12-18-2006. The record indicates, "In Bradford County, Florida farmers are running their irrigation systems at $200 to $300 a day to produce greens, and feed for their farm animals. They also have 1 fish camp who has suffered a loss due to the drought. Bradford county farmers have lost approx. $30,000.00 so far this year, and the fish camp has lost $2,000.00 this year for a total of 32,000.00."

(*Source: https://www.ncdc.noaa.gov/stormevents/*)

There is no recorded data regarding heat wave occurrences for Bradford County.

Vulnerability

While Bradford County's structures and infrastructure are not vulnerable to drought and heat wave events, people are. The sick, elderly, poor, and children are the most vulnerable to a heat wave. Housing conditions may also play a role in determining who is vulnerable to heat wave and drought incidents.

Probability – The probability for drought related events is low-medium for the entire county. The probability for heat related events is medium.

Location – Based on its nature, drought and heat wave are a concern for the entire county.

Extent – Worst-case scenario drought includes a water shortage to the point that local waterways recede to record low flow levels. The worst-case scenario for heat wave includes impacts that make it dangerous for humans and animals.

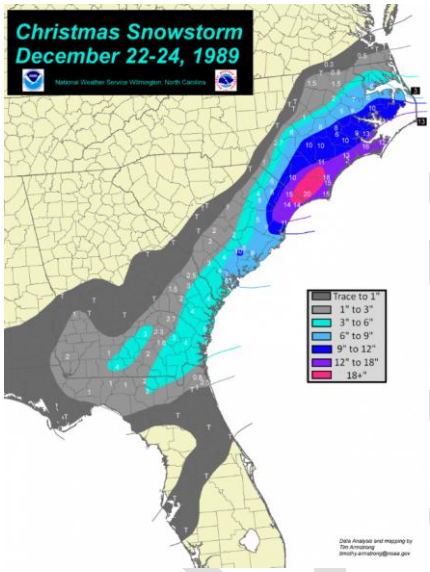
Impacts – Both drought and heatwave can have notable impacts locally. Heat wave could have health risks associated with their impact. Exposure to extreme heat could result in heat-related illness and/or death.

Commented [BW38]: Updated from previous version. Removed agricultural impacts.

Winter Storms & Freezing Temperatures

Winter storms and freezing temperatures have the ability to impact Bradford County. Severe winter conditions can take a toll on people, structure, and infrastructure. Severe cold in Florida is normally brought on by cold fronts from northern states pushing south.

Broadly characterized by snow and ice, winter weather hazards can also include relatively cold temperatures and wind chill, both of which can be more commonly seen in our area. However, Florida is not completely resistant to traditional winter weather. On December 22nd – 24th, 1989, several inches of snow fell across North Florida.



A National Weather Service graphic depicting snowfall accumulation during the Christmas Snowstorm. Bradford County shows in the Trace-1 Inch.

Source:

https://www.weather.gov/ilm/ChristmasSnow1989

Winter Storms & Freezing Temperature Occurrences

According to the previous versions of the Bradford County Local Mitigation Strategy, the following events have been recorded for Bradford County:

1/21/1985 – According to the Southeast Regional Climatic Data Center, the lowest temperature recorded was on January 21, 1985 with a record low temperature of 8°F.

3/13/1993 – The No Name Storm (data from NCDC) - The "Storm of the Century" roared across Florida producing a variety of severe and unusual weather conditions for a period of about 18 hours from late Friday, 3/12 to late Saturday, 3/13. Up to four inches of snow fell in the panhandle to a trace to 3 inches elsewhere across north Florida. Record or near record low temperatures occurred over much of the state the following two nights.

02/12/2010 – The National Ocean and Atmospheric Administration has recorded the following sleet event for Bradford County on February 12th, 2010. "A surface low tracked eastward from the Gulf of Mexico with a surface warm front extending toward the southern Florida peninsula. Cold air was in place across the area as well as deep moisture. As an upper level short wave trough approached the area from the west, reports of sleet began across portions of north and central Florida after midnight and continued through the late morning hours."

No additional occurrences could be located.

Vulnerability

While Bradford County's structures and infrastructure are not vulnerable to winter conditions, people and some economics are. The sick, elderly, poor, and children are the most vulnerable to extreme cold. Crops, which are an economic source, are at risk to extreme cold and freezing. Housing conditions may also play a role in determining who is vulnerable to winter storms and freezing temperatures.

Probability - The probability for winter storms is low for the entire county.

Location – The entire county is at risk for winter weather.

Extent – The extent of a Winter Storm / Freezing incident could be measure by the length of time that the weather is experienced or by the severity of the temperate reached. The worst-case scenario for winter weather involves freezing temperatures for a prolonged period.

Impact – Winter weather could potentially have a severe impact on Bradford County, its residents, structures, and infrastructure. Winter weather can produce low visibility situations, causing hazards on the roadway. Freezing temperatures can be harsh on the elderly, the sick, and children.

Mitigation Strategy

Section Requirements

201.6(c) (3) (i) - The hazard mitigation strategy shall include a description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

§201.6 (c) (3) (ii) A section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

§201.6 (c) (3) (ii) -The mitigation strategy must also address the jurisdiction's participation in the National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements, as appropriate

§201.6(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

LMS Mitigation Goals & Objectives

Bradford County's LMS Mitigation Goals and Objectives are intended to reduce or avoid the long-term vulnerability to the effects of the profiled hazards addressed in the risk assessment area in Section 4.

In the planning process the Working Group establishes goals for the entire planning area and all of the participating jurisdictions. The goals selected are related to the broad mitigation needs and capabilities of the communities involved, rather than addressing a specific hazard type or category.

Therefore, the county mitigation goals are multi-hazard in scope and can be described as statements of the desired mitigation-related capabilities that will be present in each participating jurisdiction in the future as the goals are achieved, and how these mitigation goals are reflected in other current policies.

LMS Goals and Objectives:

- They reflect the risk assessment.
- They are analyzed and re-evaluated which lead to the current mitigation projects that will reduce the vulnerability for each jurisdiction.
- They support the changes made in the mitigation priority list.
- They provide the direction needed to reflect the current State of Florida goals for mitigating hazards within the counties

Hazard	Goals	Goal Description
Flood	Goal 1.1	Minimize damage to existing and future buildings and infrastructure as a result of flooding.
Sinkhole	Goal 2.1	Minimize damage to future buildings and infrastructure by identifying and mapping sinkholes and areas of known sinkhole formation and providing policy direction in local government comprehensive plans which limits and guides development away from such areas.
Hurricane and Tropical Storms	Goal 3.1	Reduce the number of buildings without public utility services in the aftermath of a hurricane.

Commented [BW39]: Verify

	Goal 3.2	Reduce the length of time buildings are without public utility services in the aftermath of a hurricane.
	Goal 3.3	Reduce the susceptibility to damage of existing and future buildings to damage caused by high winds associated with hurricanes.
Tornado	Goal 4.1	Minimize loss of life as a result of tornado events.
Riverine Erosion	Goal 5.1	Maintain current levels and rates of riverine erosion by limiting development within, and directing development away from the 100-year floodplains of rivers, streams, and creeks.
Wildfire	Goal 6.1	Minimize damage to existing and future buildings and infrastructure as a result of wildfires.
Drought/Heat Wave	Goal 7.1	Minimize declines in water table levels as a result of drought.
	Goal 7.2	Minimize loss of lives as a result of droughts and heat waves.
Winter Storms/ Freezing Temperatures	Goal 8.1	Minimize loss of lives as a result of winter storms and freezes.
	Goal 8.2	Minimize damage to existing and future buildings and infrastructure as a result of freezing temperatures.
Thunderstorms/Wind/ Lightning and Hailstorms	Goal 9.1	Minimize damage to existing and future buildings and infrastructure by maintaining a StormReady status and provide for severe weather training to the local citizens.

Summary Overview of the Goals and Policy Objectives

As Bradford County's LMS plan continues to evolve, the goals will be reviewed on an annual basis at an LMS meeting to ensure that they are applicable to meeting the unique needs of the community. The LMS Goals and Objectives were reviewed at the April 16th, 2026 LMS Working Group Meeting. It was determined by the Working Group Members that the goals and objectives met the needs for the county and no changes were needed for the next LMS annual plan update.

Commented [BW40]: Verify

National Flood Insurance Program (NFIP)

As stated by FEMA… "The NFIP is aimed at reducing the impact of flooding on private and public structures. This is achieved by providing affordable insurance for

property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and 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

All jurisdictions within the County participate with the National Flood Insurance Program. According to information contained within the 2018 State of Florida Hazard Mitigation Plan, Bradford County has 435 Flood Insurance Policies in force, totaling a premium of $323,348. In addition, 89 claims were made between 1978-2018 totaling $885,812 in payouts.

The most current flood maps were updated and adopted May 2nd, 2012, and detailed floodplain studies were performed in the Flood Insurance Study (FIS) # 12007CV000A. The detailed study area of Lake Sampson, Lake Crosby, and Lake Rowell is located southwest of the City of Starke, Bradford County, Florida south of SR 100 W and north of NW CR 225. Lake Sampson, Lake Crosby, and Lake Rowell are all interconnected with the outfall to the Sampson River on the southwest side of Lake Sampson. The total contributing drainage area for this basin associated with Lake Sampson, Lake Crosby, and Lake Rowell is approximately 52 square miles. Land use for the study area is mainly forested, agricultural, and pasture. In addition, Alligator Creek, which drains the City of Starke, also flows into the Lake Sampson, Lake Crosby, and Lake Rowell system.

The County's current Floodplain Management Ordinance located in Article 8, Flood Damage Prevention Regulations in Appendix A, the Land Development Regulations in the Bradford County Code of Ordinances addresses the floodplain management as the operation of a community program of corrective and preventative measures for reducing flood damage.

Bradford Participation in the NFIP

CID #	Community Name	County	Init FHBM Identified	Init FIRM Identified	Curr Eff Map Date	Reg- Emer Date
120015	Bradford County	Bradford	2/14/1975	11/15/1989	5/2/2012	11/15/1989
120015	Town of Brooker	Bradford	8/30/1974	11/15/1989	5/2/2012	04/16/1990
120017	City of Starke	Bradford	7/19/1974	6/18/1987	5/2/2012	6/18/1987
120627	City of Hampton	Bradford		11/15/1989	5/2/2012	1/15/1999
120628	City of Lawtey	Bradford		11/15/1989	5/2/2012 (M)	3/19/1998

The Bradford County Bradford County Sheriff's Office Emergency Management Division works closely with the Building, Zoning & Planning Department to map areas that are prone to frequent floods and track repetitive loss properties. 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 flooding issues, which include retrofitting, safety, insurance, maps, historical data, and many other sources of information.

The county maintains a wealth of information for the public to access to educated themselves on flood issues to include retrofitting, safety, insurance, maps, historical data, and many other sources of information.

Bradford County and any and all participating jurisdictions will continue to participate in the NFIP. The following actions have been identified, analyzed, and prioritized as necessary steps to remain in compliance with the program:

- Continue to enforce the most current Florida Building Code, Land Development Regulations, and Comprehensive Plan;
- The County will continue to enforce their adopted Floodplain Management requirements from the Land Development Regulations, Article 8, which include regulating all new development and substantial improvements in Special Flood Hazard Areas (SFHA);
- Provide current Special Flood Hazard Area Maps for analysis and review which are located at the Building, Zoning & Planning Department;
- Continue outreach programs to the public with special emphasis for the properties lying in the repetitive flood areas;
- Continue to provide up-to-date the Flood Insurance Rate Maps (FIRM) information to all interested parties (this information is available on the SRWMD website);
- Continue to monitor all elevation certificates and maintain records and copies for anyone to review;
- Continue to assist local insurance agents with obtaining correct FIRM's and flood insurance rates;
- Continue to participate in all hazard mitigation efforts to include working with Bradford County's Bradford County Sheriff's Office Emergency Management Division to maintain and monitor hazard data for future planning;
- Submit all information to FEMA necessary to keep current FIRM's as accurate as possible; and
- Participate whenever possible in any future flood studies.

Repetitive Loss (RL)

As defined by FEMA, "a Repetitive Loss (RL) property is any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling ten-year period since 1978. The property may or may not be currently insured by the NFIP. Structures that

flood frequently strain the National Flood Insurance Fund and these properties are the biggest draw on the Fund."

With the increase in NFIP's annual losses and the need for borrowing, the repetitive loss properties drain funds needed to prepare for catastrophic events. Community leaders and the county residents are also concerned with these properties because their lives are disrupted and may be threatened by the continual flooding. The primary objective of the RL properties strategy is to eliminate or reduce the damage to property and the disruption to life caused by repeated flooding of the same properties.

As stated by the Bradford County Building & Zoning Department, the following details are noted for repetitive loss properties:

- There are 2 residential properties considered RL located in Unincorporated Bradford County (Crosby Lake and Sampson Lake).
- There are no RL properties in the other jurisdictions.

Community Rating System (CRS)

The Community Rating System (CRS) is a voluntary program for National Flood Insurance Program (NFIP) participating communities. This program's goals are to reduce flood damages to insurable property, strengthen and support the insurance aspects of the NFIP, and encourage a comprehensive approach to floodplain management. CRS has been developed to provide incentives in the form of premium discounts for communities to go beyond the minimum floodplain management requirements to develop extra measures to provide protection from flooding.

According to the Building & Zoning Department, Bradford County does not participate in the CRS.

Identification and Analysis of the County's Mitigation Projects

The LMS consists of mitigation projects that are designed to minimize potential losses to natural disasters identified in the risk assessment. The strategy provides for maintaining existing protection mechanisms provided in the county and municipal government comprehensive plans, code of ordinances, land development regulations (LDR) and other implementation mechanisms. The strategy also provides for identifying future local government capital improvements, which, among other purposes, mitigate adverse impacts from natural disasters, and a public information program to educate county residents of the need to prevent and mitigate damage caused by natural disasters.

As part of its strategy, the county will maintain its NFIP status and according to the Building, Zoning & Planning Department, the county is currently working on the CRS certificate for the county. The county and its associated municipality will also use any updated floodplain maps prepared as a result of the FEMA Floodplain Map Modernization Program and

Repetitive Loss Initiative. The county and its associated municipality, when feasible, will also use any products produced through the FEMA's on-going field and database verification projects for repetitive loss properties.

The risk assessment identifies the county is most susceptible to flooding, hurricane/tropical storm, storm surge, drought, and thunderstorm/wind events. The county and its associated municipality evaluate their comprehensive plans and land development regulations for modifications to improve mitigation measures, with special emphasis on these occurrences. The Bradford County Sheriff's Office Emergency Management Division continues to improve its recordkeeping with regards to natural disasters.

The Building, Zoning & Planning Department continues to maintain a list of repetitive loss structures and properties. The county, with the assistance of other related agencies, implements a public education campaign regarding construction within floodable areas, the use of Firewise construction and landscaping practices, the use of burn bans, emergency water conservation regulations, as well as minimum housing codes with regards to minimum building standards.

Implementation of the Mitigation Projects

All mitigation projects or initiatives were carefully reviewed, analyzed, and revised according to the list of mitigation projects that were developed and updated in the 2026 LMS Plan. Attachment I contains the list of all mitigation projects for the identified hazards with detailed specifics.

The Bradford County LMS project or strategy list includes actions that address the reduction of hazards on new as well as existing buildings and infrastructure, and will provide updated project status over the last 5 years, if the project was completed, deferred, deleted or if any new projects that have been added as a result of a hazard event.

Prioritization Process

The LMS Working Group developed an initial list of mitigation projects or initiatives. Each mitigation project or initiative identified for funding will be cost-effective, technically feasible, contribute to the overall strategy outlined in the Local Mitigation Strategy, and be acceptable to regulatory agencies. The prioritization process for the mitigation projects was accomplished in a LMS meeting between the County LMS Working Group and officials from the respective local governments.

The projects or initiatives are then prioritized utilizing the prioritization criteria outlined below. The LMS Working Group may evaluate these criteria annually, recommending changes to prioritization criteria that are deemed necessary. Each action is scored one to ten using the following criteria:

- Cost-effectiveness

- Health and safety
- Population benefit
- Community acceptance
- Feasibility of implementation
- Environmental soundness
- Technical feasibility

A Project Score Guide was submitted for each proposed project. Each Working Group member in attendance evaluates and scores the proposed project. An overall score will be assigned based on the individual scores - on the average. Should the parties concerned be unable to agree on the priority list, the prioritization list is presented to the County Board of County Commissioners with an invitation to the municipalities to present their views on the prioritization of the actions.

The County Local Mitigation Strategy Working Group Chairperson or the Emergency Management Director presents the County's Local Mitigation Strategy Working Group recommendation. This procedure of evaluation is effective as of October 2009. The Local Mitigation Strategy Chair will monitor any changes and ensure that the information gets properly entered into the plan prior to the next scheduled meeting date.

Each mitigation project that is selected by the Working Group will benefit the community and preserve and protect life and property. However, each mitigation project represents a large investment of financial and personnel resources. Due to these facts, a method to prioritize each project was adopted. This prioritization method is used as a guide for those projects to be included in the mitigation strategy. This system also designates which projects are the first to be implemented after a disaster or when resources do become available.

In 2009, the LMS Working Group adopted a prioritization method based on the following criteria category:

- Percentage of the Population Benefited
- Percentage of the Affected Area Benefited
- Health and Safety Considerations (Countywide)
- Cost of Implementing the Initiative
- Benefit to Cost Ratio (FEMA Formula)
- Probability of Community Acceptance
- Probability of Funding
- Feasibility of Implementation and Environmental Acceptability
- Consistency with Other Plans and Programs
- Time Frame for Accomplishing
- Ranking Priority

The Working Group assigns a numerical figure based on the ranking criteria of the project mentioned earlier, usually from 0 to 5 points, to each of these criteria. The final ranking is drawn from the sum of the numerical figure assigned by the Working Group. The final project prioritization list is comprised of all current projects and shows, which projects should be completed first in Bradford County when funding or other resources become available.

Benefit-Cost Review

The prioritization process developed requires the identification of projects and programs that appear to have a reduction in property damage, have technical merit, be cost-effective, and will protect the health, safety and welfare of Bradford County's citizens and meet the other mitigation benefits noted. Although the prioritization process includes economic considerations, the mitigation projects should be analyzed for the benefit cost based on the guidelines set forth by the state and FEMA.

As noted in the previous LMS plan, the process of initiating a detailed and formal Benefit-Cost Analysis (BCA) can be complicated, require professional expertise and result in a time-consuming process. The Bradford County LMS Working Group determined for this updated LMS plan that it wasn't feasible to do a formal and extensive analysis on all of the current mitigation projects at this time. The Working Group did note that if required for future mitigation projects to be funded, that a formal BCA will be performed utilizing the required expertise to execute the required ratio.

Instead of the detailed BCA, the LMS Working Group outlined the prioritization process reviewed that would cover both monetary and non-monetary benefits associated with each project as part of the Benefit-Cost Review. Projects can receive a higher point value depending upon the overall benefits for Bradford County, instead of the project's cost effective.

Criteria Category Ranking Matrix for the Bradford County Mitigation Projects

	5	4	3	2	1	0
Percentage of Population Benefited	80–100%	60–79%	40–59%	20–39%	10–38%	0–9%
Percentage of Affected Area Benefited	80–100%	60–79%	40–59%	20–39%	10–38%	0–9%
Percentage of Population Receiving Health & Safety Benefits	80–100%	60–79%	40–59%	20–39%	10–38%	0–9%
Implementation Cost	No quantifiable cost	Less than $200,000	$300,000–$500,000	$500,000–$1,000,000	$1,000,000+	Over $1,000,000

Benefit to Cost Ratio (FEMA)	More than 5.5	4.6–5.4	3.6–4.5	2.1–3.5	1.1–2.0	0.5–1.0
Probability of Community Acceptance	Likely endorsed by entire community	Benefits only directly affected; minimal adverse impact	Slightly controversial; special interest opposition	Strong opposition from special interest groups	Strongly opposed by general population	Strongly opposed; possible negative community impacts
Probability of Funding	Funding most likely through local short-term budgeting	Funding probable through local short-term budgeting	Funding possible through long-term budgeting	Funding possible through local match	Most likely post-disaster mitigation funds	No apparent funding source
Feasibility of Implementation & Environmental Acceptability	Relatively easy; environmentally sound	Not anticipated to be difficult; environmentally sound	Somewhat difficult; complex requirements and environmental considerations	Difficult due to significant complexity and permitting	Very difficult due to extreme complexity and permitting	Extremely difficult; environmentally unsound
Consistency with Other Plans & Programs	Included in several other plans/programs	Included in at least one other plan/program	Included in two other plans/programs	Included in one other plan/program	Not listed in other plans/programs	Inconsistent with other plans/programs
Timeframe for Accomplishing	1 year	18 months–2 years	Over 2 years but less than 3 years	Over 3 years but less than 4 years	Over 4 years but less than 5 years	Greater than 5 years
Ranking Priority	Required	Necessary	Very Important	Important	Somewhat Important	Not Important

Bradford County Mitigation Projects

Attachment I contains the mitigation project lists (current, ongoing, deferred, completed and deleted). The mitigation projects or initiatives are action items for the identified hazards in Section 4, and addresses the reduction of hazards on new as well as existing buildings and infrastructure. They are as follows:

- The new, ongoing, and deferred mitigation projects - (the deferred projects remain active and will be pursued as funding sources are identified or priorities change due to disaster events).
- The mitigation projects that have been completed over the last five years.
- The mitigation projects that have been removed or deleted.

Analysis of the Comprehensive Range of Mitigation Projects or Initiatives

The below table shows that Bradford County has a "comprehensive range" of specific mitigation projects that will address the goals to reduce or avoid long-term vulnerability for each jurisdiction.

Natural Hazards Profiled	Unincorporated Bradford County	City Of Starke	City of Hampton	City of Lawtey	Town of Brooker
Flooding	X	X	X	X	X
Sinkholes	X	X	X	X	X
Hurricanes/ Tropical Storms	X	X	X	X	X
Tornado	X	X	X	X	X
Thunderstorms/Winds/ Lightning/Hailstorms	X	X	X	X	X
Erosion/ Riverine and Stream Erosion	X	X	X	X	X
Wildfire	X	X	X	X	X
Drought/Heat Wave	X	X	X	X	X
Winter Storms/Freezing Temperatures	X	X	X	X	X
All Hazards	X	X	X	X	X
X - meets the requirements					

Administration of Actions

It is anticipated that Bradford County, the City of Starke, the City of Hampton, the City of Lawtey, and the Town of Brooker may apply for and administer grants for actions within their respective jurisdictions. The following lists of agencies are responsible for carrying out the identified mitigation projects contained in the LMS as well as the functions they provide.

- Bradford County Sheriff's Office Emergency Management Division – The Emergency Management Division is the lead agency responsible to research, develop, evaluate, write, maintain, and update the LMS Plan. The Division is also responsible for managing and overseeing all details for the communities to prepare for, respond to, recover from and mitigate against natural, technological and man-made hazards. The Emergency Management Director is responsible for implementing and administrating the mitigation projects, including researching and identifying funding sources and providing timeframes for the completion of the project.
- County Building, Zoning & Planning Department – Identify, develop and recommend changes to the building and zoning codes that will eliminate or lessen the impact of disasters. Assure enforcement of all existing building and land development regulations. The Building Official and/or the Floodplain Administrator is responsible for implementing and administrating the mitigation project, including researching and identifying funding sources and providing timeframes for the completion of the project.
- Bradford County School District – The School District is responsible for construction and maintenance of public schools used as emergency shelters. The School District

will be responsible for implementation of mitigation actions proposed for public school buildings. The School District Superintendent is responsible for implementing and administrating the mitigation project, including researching and identifying funding sources and providing timeframes for the completion of the project.

- Bradford County Public Works – Provide technical assistance and advice on identifying and accomplishing mitigation actions to improve the design, construction and placement of roads, bridges, culverts, etc., that will eliminate or lessen the impact of disasters. The Public Works Director is responsible for implementing and administrating the mitigation project, including researching and identifying funding sources and providing timeframes for the completion of the project.
- Florida Forest Service – Provide technical assistance and advice on all aspects of wildfire issues including identification and accomplishment of mitigation actions designed to reduce the loss of life and real property. The Florida Forest Service is responsible for implementing and administrating the mitigation project, including researching and identifying funding sources and providing timeframes for the completion of the project.
- Florida Department of Transportation – Provide technical assistance and advice on identifying and accomplishing mitigation actions to improve the design, construction and placement of roads, bridges, culverts, etc., that will eliminate or lessen the impact of disasters. The FDOT District Roadway Engineer for the area is responsible for implementing and administrating the mitigation project, including researching and identifying funding sources and providing timeframes for the completion of the project.
- Florida Division of Emergency Management (FDEM) – Provide technical assistance and funding when available; in all aspects of emergency management in order to better able the county to prepare for, respond to, recover from, and mitigate against natural, technological and man-made hazards.
- Suwannee River Water Management District (SWRMD) – Provide technical assistance and advice on identifying and accomplishing mitigation actions to help reduce or eliminate the impact of flooding in the County. The SRWMD Representative is responsible for implementing and administrating the mitigation project, including researching and identifying funding sources and providing timeframes for the completion of the project.

Plan Evaluation & Maintenance

Section Requirements

§201.6(c)(4)(i): The plan maintenance process shall include a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

§201.6(c)(4)(ii): The plan shall include a process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

§201.6(c)(4)(iii): The plan maintenance process shall include a discussion on how the community will continue public participation in the plan maintenance process.

§201.6(d)(3): Was the plan revised to reflect changes in development?

Plan Evaluation & Maintenance

Changes in Development

The Bradford County Local Mitigation Strategy serves as a guide for hazard mitigation activities on a community-wide basis. The LMS reflects the developing needs of the communities as the county experiences growth and changes in relation to hazard vulnerability. Land use modification and development can affect a variety of infrastructure issues such as roads, bridges, sewers, electrical grids, and ecological considerations such as water quality.

The following Local Mitigation Strategy Projects have been completed over recent years:

- Improve drainage and mitigate flooding concerns for residents along SE 11 Ave and SE 81 Street in Theressa. (Phase 2)
- Upgrade the mobile command post response capabilities.
- Install emergency generator at the MIS building of the Bradford County School Board in order to maintain communications open to the public.
- Integrate existing digitized County data from all available sources including flood plain mapping into a County geographic information system to included digitized Flood Insurance Rate Maps (FIRM) for use in disaster damage assessment.
- Make local government comprehensive plans consistent with the LMS.
- Upgrade radio communications systems to assure communications are maintained for emergency service providers during and after a natural disaster. The upgrades include, but are not limited to, new radio repeaters for the primary and secondary radio channels, and backup generators, including, but not limited to 800 MHZ radios.
- Harden all fire departments and emergency medical service stations within Bradford County (outside City of Starke) to withstand high winds associated with hurricanes, tropical storms and tornadoes. The project would include hardening of the doors, roof tie-downs, and installation of backup generators with automatic switches.
- Support for a Senior Center to be built.
- Restructure portions of Carter Road (NE 6th Ave) by elevating the roadbed sufficiently above the flood stage.
- Install (2) 20,000 gallon capacity storage tanks (Fire Stations 2 & 3) to augment rural water supply for fire extinguishment.

- Purchase a backup generator for the County Road Department.
- Retrofit EMS headquarters facility to harden facility to current standards.
- Improve drainage and mitigate flooding concerns for residents along NW 38th Avenue near Lawtey (Phase 1/engineering and surveying
- Improve drainage and mitigate flooding concerns for residents along NW 38th Avenue near Lawtey (Phase 2 / construction).
- Request the Florida Department of Transportation to place evacuation signs throughout the County. Educate the public on hurricane evacuation routes to be used during an emergency.

LMS Plan Evaluation, Maintenance and Update

The Bradford County Emergency Management Director, in conjunction with the Bradford County LMS Working Group, will coordinate the monitoring, evaluation, and revisions of the LMS Plan. The LMS Working Group will meet at least once on an annual basis to update and review the effectiveness of the Local Mitigation Strategy. At the LMS meeting, the Working Group Members review the following topics:

- Any significant changes to the hazard risk or vulnerability section of the plan.
- Analyze and evaluate each mitigation project or initiative and provide an update on the status. If the mitigation project has been completed, if the project will need to be removed or deleted, if there are any new mitigation projects that need to be added, and if there are any changes in the priority ranking of mitigation initiatives.
- Review the Repetitive Loss Property data.
- Analyze the Mitigation Goals and Objectives to see if they still meet the needs for the community.
- Audit any updates to the County's critical facilities list.
- Examine the vulnerability assessment data and maps, if necessary.

As a result of these efforts from the meeting, any important changes, as well as the information required in accordance with Chapter 27P-22, Florida Administrative Code, will be submitted to the Florida Division of Emergency Management, Mitigation Planning Section within the timeframe outlined in the statute.

If in the event a disaster should occur, or other type of emergency in the county, the LMS Working Group may chose to meet early in the recovery and then redevelopment phase, soon after damage assessments are conducted. At this point, the current strategy will be reviewed and necessary changes made based on lessons learned from the response and recovery phase of the disaster. Also, new mitigation projects might be identified as a result of the disaster event and will be considered and added to the mitigation project list if deemed viable.

The LMS Working Group will begin the 5-year update process as close to the 18-months prior to the expiration of the LMS Plan. The plan update will be based on an evaluation and analysis of the risk and vulnerability assessment. The intent is to incorporate any changes in the estimate of replacement costs, new scientific data on hazards, the affects hazards have on the communities, changes in growth patterns, and if there are any reductions in vulnerability due to completion of mitigation projects.

Once the risk assessment is updated, the Working Group will utilize this information and evaluate the goals, objectives, and actions contained in the LMS to determine if they are still applicable.

Also, the Working Group will evaluate whether or not the communities have the resources available to implement current and new programs and projects. The updated LMS will also capture the planning process followed during the update of the Plan.

During the 5-year LMS evaluation and revision process, at least one public meeting will be conducted and include elected and appointed County officials, each participating municipality, and the general public, for consideration of the proposed comments or changes. Upon final coordination between these groups and formal approval from FDEM, the updated Local Mitigation Strategy will be presented to the Board of County Commissioners and the governing bodies of the municipality for their approval and adoption.

Incorporation into Existing Planning Mechanisms

Commented [BW41]: P6(A4)

When feasible, the local governments should incorporate the requirements of the Local Mitigation Strategy into their comprehensive plans and land development regulations. The process for amending local government comprehensive plans is specified by Florida law, Section 163.3191, Florida Statutes, which requires local governments to prepare Evaluation and Appraisal Reports of their comprehensive plan at least once every seven years. The purpose of the process is to consider changes to comprehensive plans that reflect new information, comprehensive plan successes and failures, changing conditions and trends, as well as changes in state policy on planning and growth management which may have occurred during the prior seven years. Local governments will consider new information and policy guidance provided in the LMS in their next evaluation and appraisal report for amendments to their comprehensive plans.

Section 163.3177, Florida Statutes, requires local government comprehensive plans to include a capital improvements element and a 5-year schedule of capital improvements. Furthermore, Section 163.3177(3)(b), Florida Statutes, requires the capital improvements element to be reviewed and modified as necessary on an annual basis. In addition, that statue mandates that the identified improvements be consistent with the plan and that all public facilities shall be consistent with the capital improvements element. Therefore, all identified capital improvement projects contained in the LMS, which are anticipated to be implemented within the next five years should be considered for incorporation into capital improvements element on an annual basis.

The LMS is intended to provide the local communities an opportunity to implement across planning boundaries. There are a variety of ways that the LMS has incorporated elements of other planning mechanisms and programs in addition to related mechanisms and program that have integrated components of the LMS.

Bradford County Comprehensive Emergency Management Plan

The Bradford County Comprehensive Emergency Management Plan (CEMP) was updated in 2024 and reflects elements of the Local Mitigation Strategy. The CEMP includes a detailed Hazard Analysis which reflects information outlined in the LMS.

Commented [BW42]: Updated

In addition, the CEMP includes a Mitigation Annex. As stated in the CEMP, the purposes of the Mitigation Annex is to “clarify emergency management’s responsibilities with regard to the Local Mitigation Strategy (LMS) activities”.

Bradford County Comprehensive Plan

The Bradford County Comprehensive Plan was updated in 2012 and reflects aspects of the LMS as detailed below:

Future Land Use Element Conservation Land Use

Environmentally Sensitive Areas are lands within the 100-year flood plain, which are identified on the Future Land Use Map of this Comprehensive Plan specifically as Environmentally Sensitive Areas. (Policy I.1.6)

Further, within the Environmentally Sensitive Area-2 category, dwelling units may be clustered on smaller lots with no lot being less than five acres, if the site is developed as a Planned Residential Development and a density of one dwelling unit per ten acres is maintained on site as follows:

- The development shall provide a minimum of a 200-foot buffer from adjacent land uses, a 75-foot undisturbed buffer from a perennial river, stream or creek and a minimum 50-foot setback from a lake, pond or wetland. This buffer may be a portion of the required undeveloped area. (Policy I.1.6)
- The developed area of the development shall be located outside of: (1) wetlands; (2) floodplains; (3) native upland vegetation; (4) active agricultural areas, unless the entire development site consists of any of the combination of such areas. (Policy I.1.6)

Agricultural Land Use

Environmentally Sensitive Areas are lands within the 100-year floodplain, which are identified with the Future Land Use Plan Map of the Comprehensive Plan specifically as Environmentally Sensitive Areas. The Santa Fe River corridor shall conform with the following densities provided that within the Environmentally Sensitive Areas-2 land use classification dwelling units may be clustered on smaller lots with no lot being less than five acres, if the site is developed as a Planned Residential Development and a density of one dwelling unit per ten acres be maintained on site. (Policy I.2.2)

Objectives and Policies for both Urban Development Areas and Rural Areas

The County shall participate in the National Flood Insurance Program and regulate development and the installation of utilities in flood hazard areas in conformance with the program's requirements. (Policy I.3.9)

Suwannee River System

To protect and maintain the natural functions of the Suwannee River System (defined as the 100-year flood plain of the Santa Fe River as shown on the future land use plan map) including flood water storage and conveyance, water quality assurance, and fish and wildlife habitat, while allowing for the appropriate use and development of the land.

To help ensure that development proposals and activities wholly or partially within the 100-year flood plain of the Suwannee River System are conducted in accordance with the physical limitations of this environmentally sensitive area, the County shall continue to coordinate provisions between the County and all agencies with jurisdiction within the 100-year flood plain of the Suwannee River System. Such coordination provisions shall provide a mechanism for all such agencies to review and make comment on such proposals or activities. (Objective S.1)

The County shall request the Suwannee River Water Management District to provide a complete set of topographic maps delineating the 100-year and 10-year flood elevations within the County's jurisdiction along the Suwannee River System. (Policy S.1.1)

The County shall notify the Suwannee River Water Management District of preliminary subdivision plats, site and development plans, rezoning or reclassification of lands, and special exception hearings within the 100-year flood plain of the Suwannee River System. The purpose of such notification is to provide opportunity for the district to coordinate, among appropriate agencies, the review and commenting on the potential impact of such plans or proposals on the natural resources of the Suwannee River System. (Policy S.1.2)

The review of preliminary subdivision plats and site and development plans within the 100-year flood plain of the Suwannee River System shall be based on the best available information regarding the physical characteristics of the site, including flood plain and wetlands delineation, soil conditions, vegetative cover, and critical wildlife habitat areas. (Policy S.1.3)

The County shall provide evaluation of unique natural areas within the 100-year flood plain of the Suwannee River System during the development review process, meaning the platting of subdivisions, Planned Residential Developments, and resource-based activities. (Policy S.2.1)

The County shall require a 10-foor undisturbed regulated buffer on public lands along the property lines of public lands within the 100-year flood plain of the Suwannee River System for the purposes of visual screening, storm water run-off and erosion control. (Policy S.2.2)

The County shall participate in the acquisition planning process (prior to actual purchase) of state and regional agencies for lands and unique natural areas located within the 100-year flood plain of the Suwannee River System. (Policy S.2.3)

The County shall monitor the use of County-owned facilities on or within the 100-year flood plain of the Suwannee River System to ensure that the public use of these facilities does not threaten the facility or adjacent natural resources. (Policy S.2.4)

The County hereby designates those lands within the County's jurisdiction lying within the 100-year flood plain of the Suwannee River System as Environmentally Sensitive Area. (Policy S.3.1)

The lands within the 100-year flood plain, (as designated by FEMA, FIRM, November 15, 1989), of the Suwannee River System which are located outside the designated Urban Development Areas shall conform with the following densities provided that within the Environmentally Sensitive Areas-2 category, dwelling units may be clustered on smaller lots with no lot being less than five acres, if the site is developed as a Planned Residential Development and a density of one dwelling unit per ten acres to be maintained on site. (Policy S.3.2)

The County shall prohibit development on the river berm by requiring a minimum undisturbed vegetated buffer of 75-feet measured from the generally recognized river bank of the Santa Fe River be maintained for all single-family regimental and agricultural uses and silvicultural activities. (Policy S.3.4)

The County shall ensure that all development and redevelopment occurring in the 100-year flood plain of the Suwannee River System meet the building and design standards of the National Flood Insurance Program, the County and the Suwannee River and St. Johns Water Management District. (Objective S.4)

The County shall conform with the National Flood Insurance Program requirements for construction activities undertaken in the 100-year flood plain of the Suwannee River System. (Policy S.4.1)

The County shall require all new habitable structures be elevated no less than one-foot above the 100-year flood elevation without the use of fill materials within the regulatory floodway of the Suwannee River System. (Policy S.4.2)

The County shall require all road construction and improvement projects within the 100year flood plain of the Suwannee River System be designed in such a manner as to avoid any increase in floodway obstruction, any increase in the peak rate or volume of storm run-off, and any increase in pollutant loading to the receiving waters. (Policy S.4.3)

Conservation Element

The County shall require a 35-foot natural buffer around all wetlands and prohibit the location of agricultural, residential, commercial and industrial land uses within the buffer areas, but allow resource- based recreational activities within buffer areas and silviculture uses within buffer areas subject to the provisions. (Policy V.2.4)

The County shall require all new development to maintain the natural functions of wetlands and 100-year floodplains so that the long-term environmental integrity and economic and recreational value of the areas is maintained. (Policy V.2.6)

The County shall regulate development within the 100-year floodplain of the Santa Fe River by establishing this area as an Environmentally Sensitive Area in accordance with the land use classification policy contained within the Future Land Use Element of this

Comprehensive Plan. In addition, the County shall participate in the National Flood Insurance Program and regulate all development and the installation of utilities in the County within flood hazard areas in conformance with the program requirements. Further, the County shall require all structures in the County to be clustered on the non-floodprone portion of a site.

Where the entire site is in a floodprone area or an insufficient buildable area on the non-floodprone portion of a site exists, all structures, located in floodplains, shall be elevated no lower than 1 foot above base flood elevation. Non-residential structures located in floodplains may be flood proofed in lieu of being elevated provided that all areas of the structure below the required elevation are water tight. In addition, where the entire site is in a floodprone area or an insufficient buildable area on the non-floodprone portion of site exists, all structures located in areas of shallow flooding shall be elevated at least two feet above the highest adjacent grade. (Policy V.2.7)

The County shall prohibit development on the river berm by requiring a minimum undisturbed vegetated buffer of 75-feet measured from the generally recognized river bank of any Outstanding Florida Water (Santa Fe River), as classified by the Florida Department of Environmental Protection. (Policy V.2.14)

City of Starke Comprehensive Plan

The City of Starke Comprehensive Plan was updated in 2022 and reflects aspects of the LMS as detailed below:

Future Land Use Element

Continue to regulate development in order to implement the provisions of the Comprehensive Plan Elements through the application and enforcement of the adopted Land Development Code, which includes: (Policy A.1.1.1)

- The regulation of areas designated as subject to seasonal and periodic flooding
- Adequate stormwater management

All future land use shall be consistent with sound planning principles and the limitations of the natural environment including sensitivity to the problems posed by topography, soil conditions, or conservation areas such as wetlands and floodplains. Future land development activities shall address the need to preserve and protect historic resources through the development of a complete inventory of sites, adoption of regulatory incentives to promote preservation and provision of information on standards and criteria for the maintenance and use of historic resources; the desired community character; and the goals, objectives, and policies relating to the development of the land set forth in the other elements of this plan. (Objective A.1.3)

Ensure that future land development is carried out in a manner which will conserve, manage, and protect natural resources; maintain and enhance the natural balance of ecological functions in the community; protect air and water quality, conserve the water supply, protect the natural functions of floodplains, and native vegetation communities and wildlife habitats in accordance with the goals, objectives, and policies set forth in the Conservation Element. (Policy A.1.3.1)

Conservation Element

The City shall protect the natural functions of the 100-year floodplain so that flood-carrying and flood storage capacity are maintained. (Objective E.1.3)

The City shall continue to participate in the National Flood Insurance Program. (Policy E.1.3.1)

The City will develop a formal program for protection of the natural drainage features within Starke based on the findings of a master drainage study. (Policy E.1.3.2)

The City shall act to protect and conserve minerals and the natural functions of existing soils, fisheries, lakes and floodplains by implementing programs and regulations. (Objective E.1.5, Policies E.1.5.1, and E.1.5.2).

The City shall protect and conserve the natural functions of existing soils, lakes and ponds, and floodplains through the implementation of the policies regarding these resources set forth in the various elements of this plan and enforcement of existing local, state, and federal regulations designed to protect and conserve these functions. (Policy E.1.5.1)

The City shall establish by ordinance a 50-foot buffer on either side of Alligator Creek. No new development shall be allowed within this buffer. (Policy E.1.5.2)

The City shall protect the natural functions of the 100-year floodplains from physical and hydrological alteration through the programs as stated in Policies E.1.6.1 and E.1.6.2. (Objective E.1.6).

The City shall protect floodplains from adverse impacts by ensuring that: (Policy E.1.6.1)

- Site plans for new development identify the location and extent of the 100-year floodplains located on the property; and
- Site plans provide measures to assure that normal flows and quality of water will be provided to maintain the floodplains after development and every effort is made to achieve no net loss of floodplain areas.

The City shall adopt land development regulations, which limit the density of dwelling units within Federal Emergency Management Agency designated 100-year floodplains to the low-density land use classification (0 to 4.0 dwelling units per acre) so that existing flood storage

is maintained and allowable densities do not create potential flood hazards, or degrade the natural functions of the floodplain. Within the Alligator Creek floodplain, the density shall be limited to 0 to 2 dwelling units per acre. No hazardous materials or hazardous waste should be stored, used or generated within the floodplain. Existing public facilities located in the floodplains shall continue as conforming uses. Any lot of record existing at the time of adoption of this comprehensive plan shall be allowed one residential dwelling regardless of lot size. (Policy E.1.6.2)

Town of Brooker Comprehensive Plan

The Town of Brooker Comprehensive Plan was updated in 2012 and reflects aspects of the LMS as detailed below:

Future Land Use Element

The Town shall regulate the location of land development consistent with topography and soil conditions and the availability of facilities and services. (Objective I.2)

The land development regulations of the Town shall prohibit development within unsuitable areas due to flooding, improper drainage, steep slopes, rock formations and adverse earth formations, unless acceptable methods are formulated by the developer and approved by the Town to solve the problems created by the unsuitable land conditions and to protect the areas natural resources. (Policy I.2.1)

The land development regulations of the Town shall contain specific and detailed provisions to manage future growth and development to implement the Comprehensive Plan which shall contain at a minimum the following provisions to: (Policy I.4.1)

- Protect environmentally sensitive lands identified within the Conservation Element
- Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater.

The Town shall participate in the National Flood Insurance Program and regulate development and the installation of utilities in flood hazard areas in conformance with the programs requirements. (Policy I.6.4)

The land development regulations of the Town shall ensure that the natural functions of floodplains and flood prone areas are protected. (Policy I.6.5)

The Town shall adopt regulations to protect natural resources and environmentally sensitive lands (including but not limited to wetlands and floodplains) by 1992. (Objective I.10)

Conservation Element

Conservation uses are defined as activities within land areas designated for the purpose of conserving or protecting natural resources or environmental quality and within this plan

includes areas designated for such purposes as flood control, protection of quality or quantity of groundwater or surface water, floodplain management, or protection of vegetative communities or wildlife habitats.

The Future Land Use Plan Map Series includes the identification of flood prone areas, wetlands, existent and planned waterwells, rivers, bays, lakes, minerals and soils, which are land cover features, but are not land uses. Therefore, although these natural resources are identified within the Future Land Use Plan Map Series, they are not designated on the Future Land Use Plan Map as conservation areas. However, the constraints on future land uses of these natural resources are addressed in the following goal, objectives and policy statements.

The land development regulations of the Town shall require all new development to maintain the natural functions of environmentally sensitive areas, including but not limited to wetlands and 100-year floodplains so that the long term environmental integrity and economic and recreational value of these areas is maintained. (Policy V.2.6)

The land development regulations of the Town shall regulate development within 100-year floodplains in order to maintain the flood-carrying and flood storage capacities of the floodplains and reduce the risk of property damage and loss of life and to ensure that the natural function of flood plains are protected. (Policy V.2.7)

The Town shall replace or renew community facility plants damaged due to storm surge or flood only where such facility can meet minimum requirements for flood proofing. (Policy VIII.4.7)

City of Hampton Comprehensive Plan

The City of Hampton Comprehensive Plan was updated in 2016 and reflects aspects of the LMS as detailed below:

Future Land Use Element

The City upon adoption of this Comprehensive Plan shall restrict development within unsuitable areas caused by flooding, improper drainage, steep slopes, rock formations and adverse earth formations by the following design standards for arrangement of development. (Policy I.2.1)

The City's land development regulations shall contain specific and detailed provisions to manage future growth and development to implement the Comprehensive Plan which shall contain at a minimum the following provisions to:

(a) Regulate the subdivision of land;

(b) Regulate the use of land and water consistent with this Element to maintain the compatibility of adjacent land uses and provide for open space;

(c) Protect environmentally sensitive lands identified within the Conservation Element;

(d) Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management;

(e) Protect potable water wellfields and aquifer recharge areas;

(f) Regulate signage;

(g) Provide safe and convenient on-site traffic flow and vehicle parking needs; and

(h) Provide that development orders and permits shall not be issued which result in a reduction of the level of service standards adopted in this Comprehensive Plan. (Policy I.4.1)

Further, the City shall require all structures to be clustered on the non-flood prone portion of a site, or, where the entire site is in a flood prone area, all new construction or substantial improvement to a residential structure shall have the lowest floor elevated no lower than one foot above the base flood elevation. Where the site is within an area of shallow flooding, the structure shall be elevated at least two feet above the highest adjacent grade. (Policy I.6.4)

The City shall prohibit the location of any structure, other than permitted docks, piers, or walkways within an unmitigated wetland. Such permitted docks, piers, or walkways shall be elevated on pilings. In addition, the clearing of natural vegetation shall be prohibited, except for a minimum amount associated with the installation of the permitted docks, piers, or walkways. (Policy I.10.2)

The City shall coordinate review of all proposed subdivision plats with the Water Management District for subdivisions proposed within the drainage basin of any designated priority water body and will provide the Water Management District an opportunity to review each proposed subdivision to determine if the plat is consistent with approved management plans within that basin. (Objective I.12)

Sanitary Sewer, Solid Waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge Element

The City hereby establishes the following water quantity and quality level of service standards for drainage facilities: For all projects which fall totally within a stream or open lake watershed, detention systems must be installed such that the peak rate of post-development runoff will not exceed the peak rate of pre-development runoff for storm events up through and including either:

1. A design storm with a 10 year, 24 hour rainfall depth with Soil Conservation Service type II distribution falling on average antecedent moisture conditions for projects serving exclusively agricultural, forest, conservation or recreational uses;

2. A design storm with 100 year critical duration rainfall depth for projects serving any land use other than agricultural, silvicultural, conservation, or recreational uses (Policy IV.2.6)

The City, upon adoption of this Comprehensive Plan, shall prohibit the construction of structures or landscape alterations which would interrupt natural drainage flows, including sheet flow and flow to isolated wetland systems. (Policy IV.2.7)

The City's land development regulations shall provide for the limitation of development adjacent to natural drainage features to protect the functions of the feature. (Policy IV.5.6)

Conservation Element

Conservation land is defined as land designated for the purpose of conserving or protecting natural resources or environmental quality. If includes areas used for such purposes as flood control, protection of quality or quantity of groundwater or surface water, floodplain management, or protection of vegetative communities or wildlife habitats.

The future land use map series identifies flood prone areas, wetlands, existing and planned waterwells, rivers, bays, lakes, minerals and soils which are land cover features but are not land use.

The City's land development regulations shall require a 35-foot natural buffer around all wetlands and shall prohibit the location of residential, commercial, and industrial land uses within the buffer resource-based recreational activities within buffer areas. (Policy V.2.4)

The City's land development regulations shall require all new development to maintain the natural functions of natural flood storage, pollution alternatives, in wetlands and 100-year floodprone areas. (Policy V.2.6)

The City shall require all structure to be clustered on the non-floodprone portion of a site, or, where the entire site is in a floodprone area, all new construction or substantial improvement to a residential structure shall have the lowest floor elevated no lower than one foot above the base flood elevation. Where the site is within an area of shallow flooding, the structure shall be elevated at least 2 feet above the highest adjacent grade. (Policy V.2.7)

City of Lawtey Comprehensive Plan

The City of Lawtey Comprehensive Plan reflects aspects of the LMS as detailed below:

Future Land Use Element

The City land development regulations shall restrict development within unsuitable areas due to flooding, improper drainage, steep slopes, rock formations and adverse earth formations, unless acceptable methods are formulated by the developer and approved by the City to solve the problems created by the unsuitable land conditions. (Policy I.2.1)

The City's land development regulations shall contain specific and detailed provisions to manage future growth and development to implement the Comprehensive Plan which shall contain at a minimum the following provisions to: (Policy I.4.1)

- Regulate areas subject to seasonal and periodic flooding and provide for drainage and stormwater management.

The City shall participate in the National Flood Insurance Program and regulate development and the installation of utilities in flood hazard areas in conformance with the program requirements. (Policy I.6.4)

The City shall adopt regulations to protect natural resources and environmentally sensitive lands (including but not limited to wetlands and floodplains). (Objective I.10)

Conservation Element Flood Prone Areas

The City contains certain lands lying within floodplains and other flood prone areas in the City. Flood prone areas are concentrated in the City's fringe area and in the surrounding, existing stream channels of a branch of Alligator Creek (North) and branch of Olustee Creek.

The flood prone areas within the City are subject to occasional flooding due to seasonal rainfall and other storm events. Mapped flood prone areas usually include those areas within the 100-year flood zone, or those areas, which have the probability of being flooded one percent of any given year. Included within the 100-year flood zone are areas around existing stream channels and other isolated depressions. Flood prone areas are shaped in part by topography, storm water volume, vegetation, and other natural or man- made forces, which affect water flow.

The National Flood Insurance Program (NFIP), was formerly administered through the Federal Department of Housing and Urban Development, was established by Congress in 1968 to reduce the annual flood losses through more careful planning and to provide property owners with affordable flood insurance protection. In return for the federally-subsidized insurance, local governments, which are members of the program must carry out floodplain management measures to protect lives and new construction from flooding. If local governments do not join the program, federal agencies may not provide grant money, mortgage backing, direct loans or other funding, (including disaster relief) to support the purchase, construction or improvement of property located in identified flood hazard areas.

NFIP consists of two phases, the emergency and regular phase. In the emergency phase, a local government is identified by FEMA as having flood hazard, which would be subject to

flood during the 100-year flood event. The local government is notified of the hazard and is afforded an opportunity to participate in the NFIP. Flood hazard areas are established on Flood Hazard Boundary Maps and limited amounts of insurance are available to property owners in these areas.

In order to meet minimum floodplain management standards in the emergency phase, a local government must require building permits for all proposed construction in order to review them and assure that the proposed construction will be reasonable free from flooding. Regulations for flood prone areas require that the following general provision are met:

- Properly anchor any structure;
- Use construction materials and methods that will minimize flood damage;
- Provide adequate drainage for new subdivisions; and
- Locate and design new or replacement utility systems to prevent flood loss.

As part of the regular phase of the NFIP, detailed FIRM for a local government is prepared by FEMA. These show flood elevations derived from detailed on-site engineering surveys and outline risk zones used for insurance purposes. One of the primary requirements of this phase of the program is to require all habitable structures to elevate the floor level to the height of the base flood (100-year flood) elevation or be flood proofed with some other acceptable method.