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LOCAL MITIGATION STRATEGY

WALTON COUNTY

2020 Update

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1.0 INTRODUCTION

1.1 Purpose of the Local Mitigation Strategy

Hazard mitigation is defined as any action taken to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves long- and short-term actions implemented before, during and after disasters. Hazard mitigation activities include planning efforts, policy changes, programs, studies, improvement projects, and other steps to reduce the impacts of hazards.

For many years, federal disaster funding focused on relief and recovery after disasters occurred, with limited funding for hazard mitigation planning in advance. The Disaster Mitigation Act (DMA), passed in 2000, shifted the federal emphasis toward planning for disasters before they occur. The DMA requires state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. Regulations developed to fulfill the DMA's requirements are included in Title 44 of the Code of Federal Regulations (44 CFR).

The responsibility for hazard mitigation lies with many, including private property owners, commercial interests, and local, state and federal governments. The DMA encourages cooperation among state and local authorities in pre-disaster planning. The enhanced planning network called for by the DMA helps local governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk-reduction projects.

The DMA also promotes sustainability in hazard mitigation. To be sustainable, hazard mitigation needs to incorporate sound management of natural resources and address hazards and mitigation in the largest possible social and economic context.

1.2 Benefits

Hazard mitigation planning helps to identify strategies and actions that will reduce risk for those who live in, work in, and visit the county. In addition, hazard mitigation planning provides a viable planning framework for all foreseeable natural hazards that may impact the county. Furthermore, participation in the development of the plan by key stakeholders in the county helps to ensure that outcomes will be mutually beneficial. Benefits of hazard mitigation planning includes:

- Reduce the loss of life, property, essential services, critical facilities, and economic hardship
- Reduce short-term and long-term recovery and reconstruction costs
- Increase cooperation and communication within the community through the planning process
- Increase potential for state and federal funding for pre- and post-disaster projects.

Walton County prepared a local mitigation strategy in compliance with the DMA in 2015. Cities within the county participated as planning partners in the plan. The LMS identified resources, information, and strategies for reducing risk from natural hazards. It called for ongoing updates. This *Walton County Local Mitigation Strategy* fulfills the ongoing update requirement.

2.0 LMS PLANNING PROCESS

2.1 Strategy Preparation and Organization

Walton County hired Tetra Tech, Inc. to assist with development and implementation of the LMS update. Tetra Tech staff coordinated with County, City and State stakeholders to facilitate meetings, collect data and update the LMS. The Tetra Tech Project Manager and Planner reported directly to the Walton County Director of Emergency Management who served as the Client Project Manager. In addition, Walton County has an LMS Working Group that regularly meets on a quarterly basis. The mission of the work group is to plan for a decrease in the vulnerability of the citizens, governments, businesses and institutions of Walton County from the future human, economic and environmental costs of natural, technological, and human caused disasters. The LMS Working Group was actively involved in attending meetings, either in person, online, or via phone, providing input on plan drafts, and completion of hazard mitigation work sheets to collect data on jurisdiction capabilities, development, plan integration with other plans and initiatives, and updates regarding previous mitigation projects.. The LMS Working Group consists of representatives from the following organizations:

- City of DeFuniak Springs
- City of Freeport
- City of Paxton
- Florida Department of Health, Walton County
- Florida Division of Emergency Management
- Muscogee Nation of Florida
- Regional Utilities
- South Walton Fire District
- South Walton Utility Company, Inc.
- Walton Area Chamber of Commerce
- Walton County Fire and Rescue
- Walton County Government
- Walton County School District
- Walton County Sheriff's Department
- Walton County Tourist Development Council

Each jurisdiction maintains a liaison in the LMS Working Group who participated in the quarterly meetings as well as the 5-year LMS update process. Meeting minutes, sign-in sheets and associated materials, are contained in Appendix G.

The process used by the group in the LMS update adhered to the National Flood Insurance Program's Community Rating System (CRS) by including staff responsible for land use and zoning, construction permitting, code enforcement, floodplain management and mitigation, flood insurance education and other outreach topics.

Jurisdictions covered under this plan and seeking FEMA approval include Walton County, the City of DeFuniak Springs, the City of Freeport, and the City of Paxton.

Jurisdictional Representatives include:

- Walton County
    - County Attorney
    - Emergency Management Director

    - Emergency Management Planning Coordinator
    - Finance Director
    - Fire Chief or designee
    - Floodplain Manager
    - GIS Data Coordinator
    - Grants Coordinator
    - Planning Director
    - Planning Manager
    - Public Information Manager
    - Public Works Coastal Resource Liaison
    - Public Works Engineer
    - Public Works Foreman
    - Public Works Program Manager
- Walton County Sheriff's Office
    - Sheriff or designee
- City of DeFuniak Springs
    - Deputy City Manager
    - Planning Director
    - Public Works Administrative Assistant
- City of Freeport
    - Planning Director
- City of Paxton
    - Billing Clerk/Deputy Clerk
- Special Taxing Districts
  - South Walton County Fire District
    - Fire Chief or designee

2.2 Public Involvement

Seven meetings were conducted to get feedback from stakeholders regarding the update of the LMS. Four of the meetings were targeted to the LMS Working Group. Three of the meetings were targeted to the general public. In addition, a public survey was developed to collect public opinion regarding hazards, mitigation actions and priorities.

On January 23, 2020 a meeting was conducted with the LMS Working Group at the Walton County Emergency Operations Center to discuss the purpose and benefits of hazard mitigation, identify the process to be used in planning and discuss the hazards of concern to be explored in updating the LMS.

After the January 23, 2020 LMS Working Group meeting, a public meeting was hosted at the Freeport Board Room, to provide the public with an overview of the local mitigation strategy development process and to provide the public an opportunity to comment on hazards of concern and mitigation strategies and priorities. The meeting was video-taped and hosted on the Walton County Public Information website for those unable to attend the meeting in person.

On March 17, 2020, a second LMS Working Group meeting was conducted. The meeting was conducted at the Walton County Emergency Operations Center but was also hosted via an online platform due to social distancing measure recommendations in place as a result of the Corona Virus 2019 (COVID-19) pandemic. The purpose of the meeting

was to finalize the hazards of concern list, explain worksheets for the jurisdictions to complete to collect needed data for the plan update, provide the group an update on hazard and risk data efforts, discuss potential goals and objectives for the LMS, and introduce the public survey and ask the LMS Workgroups assistance in disseminating it to the public.

Following the LMS Working Group meeting on March 17, 2020, a public meeting was conducted, also on March 17th, to review the purpose of the project, identify the finalized hazards of concern for the LMS plan update, discuss the goals for the LMS, identify actions that homeowners can take to mitigate hazards, and discuss the public survey. Because of social distancing measures in place the meeting was conducted via FaceBook Live.

On May 14, 2020 a third LMS Working Group Meeting was conducted to review and finalize the goals and objectives of the LMS update, get an update on current hazard mitigation projects, and to identify additional mitigation projects to pursue if funding is available.

On June 10, 2020, After completion of a draft LMS update, a meeting was conducted with the LMS Working Group to review the draft LMS and get feedback for any revisions. The meeting was conduct via online platform in accordance with COVID-19 social distancing. A public meeting was also hosted on the same dayFr to introduce the draft LMS and collect feedback.

The plan was posted at https://www.co.walton.fl.us/569/Local-Mitigation-Strategy-LMS. Feedback on the plan was solicitated from the public and comments were received and integrated into the final version of the plan.

2.3 Coordination with other Agencies

A number of emails and phone calls were made to collect data and feedback from agencies both inside the LMS Working Group as well as stakeholder agencies outside the Work Group. Documents were collected and reviewed including the 2018 Enhanced State Hazard Mitigation Plan for the State Florida, the Walton County Comprehensive Emergency Management Plan, and elements of the Walton County Comprehensive Plan including the Future Land Use Plan, the Intergovernmental Coordination Element, Infrastructure, Conservation, Capital Improvements, Coastal Management, Housing, and the Recreation, Open Space and Greenways Element.

In addition to the documents collected from participating jurisdictions, six worksheets were developed to aid in the collection of pertinent data. A description of each of the worksheets is listed below:

- The first worksheet was focused on previous incidences and the extent of damages from those events.
- The second worksheet looked at capabilities regarding planning, administration, financial resources, education outreach and regulatory matters.
- The third worksheet focused on the jurisdiction's capabilities regarding the National Flood Insurance Program.
- The fourth worksheet asked for an update on the jurisdiction's mitigation projects.
- The fifth worksheet explored how mitigation planning is integrated with other programs and departments.
- The sixth worksheet, asked about the status of new development in the jurisdiction and what possible known hazards there might be (e.g. flooding, hurricane, etc.) to those developments.

2.4 Planning Process

The Walton County LMS Working Group maintains representatives from the jurisdictions and key stakeholder organizations participating in the LMS update process. The LMS working group is also responsible for reviewing the hazards of concern, the goals and objectives of the plan, the risk and vulnerability information, and the mitigation projects. The LMS Working Group is responsible for revising the elements of the LMS as necessary, periodically reviewing the priorities under the plan and eliminating those projects or initiatives that are no longer deemed as necessary for meeting the goals and objectives under the LMS. Each meeting invited the public to attend and was formally noticed following all Sunshine laws and using proper public noticing protocols.

2.4.1 Hazard Identification and Risk Estimation

Risk assessment is the process of estimating the potential loss of life, personal injury, economic injury, and property damage resulting from identified hazards. The process focuses on the following elements:

- Hazard identification—Use all available information to determine what types of hazards may affect a jurisdiction, how often they can occur, and their potential severity.
- Exposure identification—Estimate the total number of people and properties in the jurisdiction that are likely to experience a hazard event if it occurs.
- Vulnerability identification and loss estimation—Assess the impact of hazard events on the people, property, environment, economy and lands of the region, including estimates of the cost of potential damage or cost that can be avoided by mitigation.

The risk assessment for this hazard mitigation plan evaluates the risk of natural hazards prevalent in the planning area and meets requirements of the Disaster Mitigation Act (44 CFR, Section 201.6(c)(2)). To protect individual privacy and the security of critical facilities, information on properties assessed is presented in aggregate, without details about specific individual personal or public properties.

The LMS Working Group considered the full range of natural hazards that could affect the planning area, beginning with those hazards that were profiled in the prior plan, and then listed hazards that present the greatest concern. The process incorporated a review of state and local hazard planning documents as well as information on the frequency of, magnitude of, and costs associated with hazards that have struck the planning area or could do so. Anecdotal information regarding natural hazards and the perceived vulnerability of the planning area's assets to them was also used.

2.4.2 Vulnerability Assessment

Following the risk assessment, a vulnerability assessment was conducted by the LMS Working Group. The vulnerability assessment predicts the extent of damage that may result from a hazard of a given intensity in an area on the existing and future build environment. Determining the community's vulnerability involved identifying the threats posed to people, property, operations, and the environment. This also included identifying critical facilities that could be affected by hazards.

2.4.3 Developing Hazard Mitigation Initiatives

To develop hazard mitigation initiatives the LMS Working Group discussed the hazards of concern, the potential risks and vulnerabilities associated with those hazards. Each jurisdiction was also provided worksheet that they completed to assess their past disasters, their capabilities, and their future outlook for development to determine what actions might be needed to address any potential hazards. A conference call with the LMS Working Group was conducted on May 14, 2020 to collectively discuss the status of past mitigation projects and identify what projects were completed and what projects should be deleted or continued in accordance with the goals and objectives of the next five-year LMS period. In addition, the LMS Working Group was provided the results of the public survey so they could consider the concerns, comments and suggestions of their constituents in identifying hazard mitigation actions.

2.4.4 Developing the Local Mitigation Action Plan

The process in developing the plan was informed by the LMS Working Group to ensure the process was in line with the goals and objectives as outlined by the LMS Working Group. The hazard risk data was developed in collaboration with local, State and Federal agencies to ensure the information regarding the risks and associated vulnerabilities were assembled using relevant and timely data. Prior strategies were examined for their relevancy and determined if they should continue as priorities for the county and cities or be deferred until a later date.

2.4.5 Approval of the Current Edition of the Strategy

At the end of the planning period, the updated LMS for Walton County was provided to the County and Cities for approval by the elected governing bodies of the jurisdictions and organizations that participated in the planning process. By resolution, each governing body approves, endorses, or acts on its own component of the plan and addresses the implementation of mitigation initiatives its own representatives proposed. Resolutions for adopting the strategy document by each governing body will be housed in Appendix H upon execution of each Jurisdiction.

2.4.6 Implementation of Approved Mitigation Initiatives

Once incorporated into the Local Mitigation Strategy, the agency or organization proposing the initiative becomes responsible for its implementation. This includes developing a budget for the project(s), and/or making an application to state and federal agencies to supply financial support for implementation of the project(s).

3.0 HAZARD IDENTIFICATION AND RISK ASSESSMENT

3.1 County Profile

Walton County

Walton County, Florida is in the panhandle of northwest Florida. It is bordered by Holmes, Washington and Bay Counties in Florida to the east, the Gulf of Mexico to the south, Okaloosa County, Florida to the west, and Covington and Geneva Counties in Alabama to the north. Walton County is the 12th largest county in Florida with a total area of 1,240 square miles, of which 1,037.4 square miles is land and 202 square miles is water.

According to the U.S. Census Bureau, the population estimate as of July 2018 for Walton County is 71,375. That is a 23 percent increase over the population from 5 years ago at the last LMS update making Walton County one of the fastest growing counties in the state. There are 26,432 households in the county.

The racial composition of the county includes 84.2 percent White, 6.4 percent Hispanic, 5.2 percent African American, 2.7 percent Two or More Races, 1.4 percent Asian, 0.8 percent American Indian and Alaskan, 0.2 percent Native Hawaiian and Other Pacific Islander.

Per capita personal income in Walton County in 2018 was $33,731 versus $30,197 for the per capita personal income for the State of Florida. Household income was $53,785 in the County versus $53,267 in the State. Approximately 11.4 percent of persons in Walton County live in poverty compared with 13.6 percent of persons that live in poverty in the State.

City of DeFuniak Springs

The City of DeFuniak Springs is the county seat of Walton County. According to the U.S. Census, the estimated population of DeFuniak Springs was 6,719 in July 2018. This is a 29.9 percent increase from the 2010 census. The City occupies a total area of 11.2 square miles, of which 11.0 square miles is land and 0.3 square miles is water. The City is located in the east central area of the County with Interstate I-10 and the railroad running through it.

The racial composition of the city is 74.3 percent White, 19.1 percent African American, 3.0 percent Two or More Races, 2.9 percent Hispanic or Latino, and 0.9 percent American Indian and Alaskan.

Per Capita personal income in the City of DeFuniak Springs in 2018 was $23,660. Household income during the same period was $35,650. Approximately 16.2 percent of city residents live in poverty.

City of Freeport

The population of the City of Freeport was 2,472 in July 2018. The City occupies a total of 10.8 square miles, of which 10.8 square miles is land and 0.04 square miles is water. The city is located at the junction of Four Mile Creek and Lafayette Creek.

The racial composition of the city is 92.77 percent White, 2.35 percent African American, 2.27 percent Two or More Races, 2.18 percent Native American, 1.09 percent Hispanic or Latino, 0.17 percent Pacific Islander, 0.17 Other Races, and 0.08 percent Asian.

Household income in the City of Freeport in 2018 was $51,172. Approximately 13.0 percent of the population live in poverty.

City of Paxton

The population of the City of Paxton was 822 in 2018. The city occupies a total of 4.0 square miles, of which 3.9 miles is land and 0.1 square miles is water. The city is in the northern most area of Walton County near the border between Florida and Alabama.

The racial composition of the city is 87.6 percent White, 10.0 percent African American, 1.4 percent Two or More Races, and 1.1 percent Hispanic or Latino.

Household income in the City of Paxton is estimated to be $40,389. Approximately 25 percent of the population lives in poverty.

Walton County Employment

There are 2,336 employer firms in the County, According to Enterprise Florida, the largest industry sectors by employer include the following:

- Leisure and Hospitality 26.1%
- Trade, Transportation and Utilities 22.0 %
- Government 12.8%
- Education and Health Services 9.3%
- Professional/Business Services 9.0%
- Construction 8.7%
- Financial Activities 6.4%
- Other Services 3.6%
- Manufacturing 1.4%
- Information 0.5%
- Natural Resource and Mining 0.2%

Table 3-1-1 identifies the major private sector employers in the County.

Table 3-1-1. Top Employers in Walton County

Employer	Business Line	Number of Employees
Sandestin Golf and Beach Resort	Resort	1,800
Sacred Heart on the Emerald Coast	Healthcare	261
ResortQuest	Resort/Property Management	250
Publix	Retail	140
Hilton Sandestin Beach Golf Resort and Spa	Resort	128

3.2 Summary of Changes

The 2020 LMS consolidates, updates and streamlines information from the 2015 LMS. As part of the update to the LMS the following changes were made to the list of hazards of concern.

- Added *Epidemic/ Pandemic Profile*
- Added *Agricultural Diseases and Pests Profile*
- Deleted *Riverine Erosion* from the *Erosion* Profile and consolidated it to be titled *Coastal Erosion* since Walton County had no previous incidents of riverine erosion. See the *Coastal Erosion* profile for more information.
- Added *Transportation Incidents Profile*
- Added *Utility Outages Profile*
- Expanded the *Terrorism* section to include information on bioterrorism, chemical, and explosive terrorism incidents.
- Added *Workplace and School Violence Profile*

In addition to the changes to the list of hazards of concern, the risk and vulnerability information for each hazard has been updated and the status of each proposed project under the prior LMS have been updated. New mitigation action projects have also been added to address the goals and objectives identified by the LMS Working Group.

3.3 Hazard Identification

This section generally describes the hazards that could affect Walton County and discusses their potential impact and why the hazard is analyzed in this LMS. The following hazards are included in this report:

- Natural Hazards:
  - Dam Failure
  - Disease Outbreak
    - Epidemic / Pandemic
    - Animal / Plant
  - Coastal Erosion
  - Drought
  - Flood
    - Tsunami
    - Storm Surge Flooding
    - Areal / Riverine
  - Geological
    - Earthquake
    - Sinkholes
  - Severe Weather
    - Thunderstorms
    - Tropical Cyclones
      - Tropical Storms
      - Hurricanes
    - Tornadoes
    - Extreme Temperatures
      - Cold
      - Heat
  - Wildfire / Urban Fire
  - Winter Storm
- Technological Hazards:
  - HazMat Incident
    - Fixed Facility
    - Transportation
  - Transportation Incident
    - Air
    - Rail
    - Highway
  - Utility Outages
- Human-Caused Hazards:
  - Terrorism
    - Chemical
    - Biological
    - Radiological
    - Nuclear
    - Explosive
    - Cyber
  - Workplace / School Violence

Some of these hazards are considered to be interrelated or cascading (i.e., hurricanes can cause flooding, storm surge and tornadoes), but for preliminary hazard identification purposes these distinct hazards are broken out separately. It should also be noted that some hazards, such as freeze/extreme cold, may impact a large area yet cause little damage, while other hazards, such as a tornado, may impact a small area yet cause extensive damage.

The following hazards will not be discussed in this HIRA due to their overall low frequency or low impact in Walton County, Florida:

- Riverine Erosion
- Volcano
- Major Pipeline Failure
- Civil Disturbance
- Mass Migration
- Special Events

3.3.1 Federal Disaster Declarations

Table 3-3-1.1 below identifies the emergency and disaster declarations for Walton County since 1975. An emergency declaration (EM) supplements State and local or Indian tribal government efforts in providing emergency services, such as the protection of lives, property, public health, and safety, or to lessen or avert the threat of a catastrophe in any part of the United States. The total amount of assistance provided for in a single emergency may not exceed $5 million. A major disaster declaration (DR) provides a wide range of federal assistance programs for individuals and public infrastructure, including funds for both emergency and permanent work.[1]

Table 3-3-1.1. Presidential Declared Disasters for Walton County 1975 to January 2020

Disaster Number	Disaster Type	Incident Type	Incident Date
479	DR	Flooding	1975
484	DR	High winds, heaving rains and flooding	1975
600	DR	Hurricane Frederic	1979
862	DR	Flooding, severe storm	1990
1035	DR	Tropical Storm Alberto	1994
3114	EM	Tropical Storm Alberto	1994
1062	DR	Hurricane Erin	1995
1069	DR	Hurricane Opal	1995
1223	DR	Extreme fire hazard	1998
1249	DR	Hurricane Georges	1998
3131	EM	Hurricane Georges	1998
1195	DR	Tornadoes	1195
3139	EM	Fire hazard	1999
2360	FSA	Chipola River Fire Complex	2001
1545	DR	Hurricane Frances	2004
1551	DR	Hurricane Ivan	2004
1539	DR	Hurricane Charley and Tropical Storm Bonnie	2004
1595	DR	Hurricane Dennis	2005
1602	DR	Hurricane Katrina	2005
3220	EM	Hurricane Katrina Evacuation	2005
2690	FM	Black Creek Fire	2007
3288	EM	Tropical Storm Fay	2008
1831	DR	Severe Storms, Flooding, Tornadoes, and Straight-line Winds	2009
4138	DR	Severe Storms and Flooding	2013
4177	DR	Severe Storms, Tornadoes, Straight-line W inds, and Flooding	2014
3385	EM	Hurricane Irma	2017
4337	DR	Hurricane Irma	2017
3405	EM	Hurricane Michael	2018

[1] The Disaster Declaration Process FEMA website, https://www.fema.gov/disaster-declaration-process

Disaster Number	Disaster Type	Incident Type	Incident Date
4399	DR	Hurricane Michael	2018
3419	EM	Hurricane Dorian	2019
3432	EM	Covid-19	2020
4486	DR	Covid-19 Pandemic	2020

3.3.2 National Centers for Environmental Information: Storm Events Data

Table 3-2-2.1. NCEI Hazard Events for Walton County, FL (as of January 2020)

Hazards Type	Period of Record	Total Events	Property Damage (unadjusted)	Property Damage (2020$)	Crop Damage (unadjusted)	Crop Damage (2016$)	Injuries	Deaths
Coastal Flood	1996 to Present	2	25,000	30,000	0	0	0	0
Drought	1996 to Present	20	0	0	0	0	0	0
Excessive Heat	1996 to Present	0	0	0	0	0	0	0
Extreme Cold	1996 to Present	0	0	0	0	0	0	0
Flood	1996 to Present	19	64,870,000	95,464,754	0	0	0	1
Hurricane	1996 to Present	5	77,800,000	112,503,000	0	0	1	0
Storm Surge Flooding	1996 to Present	9	20,105,000	27,139,168	0	0	0	0
Thunderstorm	1996 to Present	123	1,382,000	1,816,230	0	0	0	0
Tornado	1996 to Present	16	2,914,000	4,359,057	0	0	0	0
Tropical Storm	1996 to Present	15	10,596,000	15,120,492	0	0	0	0
Tsunami	1996 to Present	0	0	0	0	0	0	0
Wildfire	1996 to Present	2	300,000	475,000	0	0	1	0
Winter Storm	1996 to Present	1	133,000	145,380	0	0	0	0
Total		212	178,125,000	269,425,589	0	0	2	1

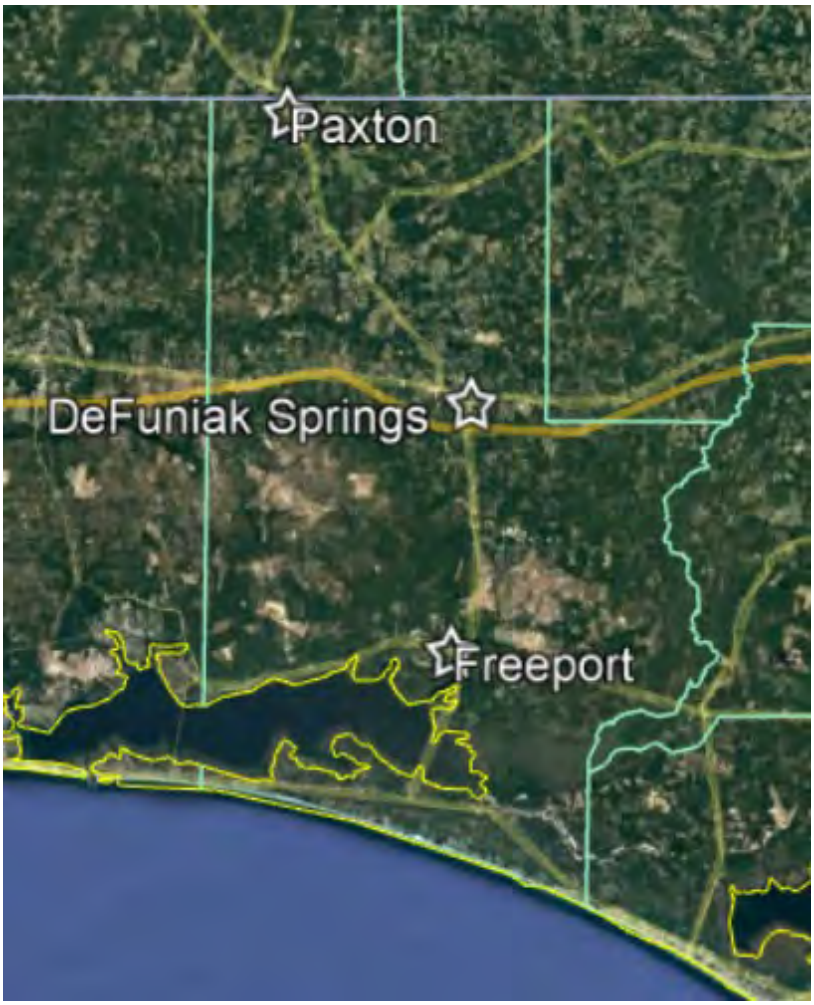
The data collection methods for the NCEI Storm Events Database have varied significantly over time. The records kept prior to 1993 were extracted from a manually typed Storm Data Publication. From 1993 to the present the Storm Data Publication was built from the digital records in the database. Additional details on the various collection sources for storm database files used in NCEI's database can be found on the NCEI website. It should be noted that property and crop damage should be considered a broad estimate. The National Weather Service makes a best guess using all available data from a variety of sources at the time of the publication.

3.4 Vulnerability Assessment Overview

3.4.1 Assets, Infrastructure, and Critical Facilities

The Local Mitigation Strategy includes Walton County and its municipalities: The City of Paxton, City of Freeport, and City of DeFuniak Springs. Figure 3-4-1.1 shows the jurisdictional boundaries that were used to analyze, calculate, and display hazard risk.

Figure 3-4-1.1. Walton County jurisdictional boundaries and location.



Note: Walton County is outlined in green.

3.4.2 Critical Facilities

An inventory of structures and critical facilities was performed. Critical facilities are vital in maintaining community function and include emergency response facilities such as: law enforcement, fire, and emergency medical services

(EMS) stations; hospitals, nursing homes, and care facilities; schools; local government buildings; and important transportation facilities, including airports, parks, water treatment plants, and waste water treatment plants.

The table below summarizes the total number of critical facilities in Walton County, Table 3-4-2.1 organizes the distribution of critical facilities by facility type.

Table 3-4-2.1. Summary of Critical Facilities within the County by Type

Facility Type	Quantity of Facilities
Correctional Facilities	5
Emergency Services	18
Communications	48
Hazmat (EPLAN)	147
EOC	2
Law Enforcement	5
Fire	20
Public Schools	19
Private Schools	5
Medical Facilities	9
Shelters	7
Armory	0
Electrical	19
Gas Stations	28
Government Facilities	257 (all facilities SOLARIS)
Landing Zones (helipads heliports)	2
Wastewater Treatment Facilities	29
Solid Waste Facilities	50

3.4.3 Building Data

Walton County building footprint data was analyzed to estimate the total property value for each footprint. The analysis presumes equal distribution of property value based on building footprint area. For example: 10 buildings with 10,000 square feet in a tract value of $1,000,000 would each be valued at $100,000.

Table 3-3.1 summarizes the total number and value of building footprints in the county.

Table 3-4-3.1. Total Buildings and Property Value

Occupancy Class	Quantity of Structures	Exposure Value (in dollars)
Commercial		
Agricultural	2891	500,714,000
Retail	1547	1,136,579,840
Wholesale	2	1,002,680
Personal	276	136,903,190

Occupancy Class	Quantity of Structures	Exposure Value (in dollars)
Professional	17	27,146,950
Banks	36	45,774,750
Hospital	10	119,096,000
Entertainment	459	318,023,400
Theater	1	6,629,280
Educational		
Grade Schools	74	204,077,080
College	15	14,504,730
Governmental		
General Government	539	386,627,810
Industrial		
Heavy	28	19,589,340
Light	383	220,893,300
Food	13	8,117,930
Metals	0	0
Religious		
Church	406	247,229,570
Residential		
Single	28,267	7,483,475,670
Manufactured	5,209	430,798,370
Duplex	133	168,589,760
Triplex	1,777	345,615,460
Multi-Family	0	0
Temporary	92	254,480,100
Institutional	74	60,290,010
Nursing Facilities	7	49,262,520

3.4.4 Hazard Ranking

A standardized methodology, which allows for greater flexibility and subject matter expertise, was developed to compare different hazards' risk. This method prioritizes hazard risk based on a blend of quantitative factors extracted from NCEI and other data sources. Many of the hazards assessed in this HIRA did not have quantifiable probability or impact data, thus a semi-quantitative ranking system was used to compare all of the hazards of interest instead. These include:

- Likelihood of occurrence (probability);
- Likely range of impact (warning time); and
- Probable level of impact (maximum impact and deaths and injuries).

Each hazard was ranked from 1 (low), 2 (medium), and 3 (high) in four categories, which were then weighted and averaged together to develop a Composite Hazard Index. This index was then used to rank the hazards as high,

medium, or low. Table 3-4.1 provides a summary of the categories used to rank the hazards and their weighted values for the Composite Hazard Index.

Table 3-4-4.1. Hazard Evaluation Priority Categories and Scores

Score	Probability	Maximum Impact (Annual Damages)	Direct Deaths and Injuries	Warning Time
Weighting	1.25	1.25	1.0	0.5
1	*Low* - Infrequent occurrence with at least one NCEI documented event and annual probability less than 0.5	Less than $50,000	None recorded	Extended: Three days or more
2	*Medium*- Frequent occurrence with at least some NCEI documented events and annual probability between 1.0 and 0.5	Between $50,000 and $150,000	Any Injuries recorded but no deaths	Minimal: 1 - 2 days
3	*High* - Common events with annual probability greater than 1.0	Over $150,000	Any Death(s) recorded	No Notice: Less than 24 hours

3.5 Hazard Profiles

3.5.1 Dam Failure

Description

A dam is an artificial barrier that has the ability to store water, wastewater, or liquid-borne materials for many reasons (flood control, human water supply, irrigation, livestock water supply, energy generation, containment of mine tailings, recreation, or pollution control. Many dams fulfill a combination of the stated functions.[2] They are an important resource in the United States.

Man-made dams can be classified according to the type of construction material used, the methods used in construction, the slope or cross-section of the dam, the way the dam resists the forces of the water pressure behind it, the means used for controlling seepage, and, occasionally, according to the purpose of the dam. The materials used for construction of dams include earth, rock, tailings from mining or milling, concrete, masonry, steel, timber, miscellaneous materials (plastic or rubber), and any combination of these materials.[3]

Dam failures typically occur when spillway capacity is inadequate and excess flow overtops the dam, or when internal erosion (piping) through the dam or foundation occurs. Complete failure occurs if internal erosion or overtopping results in a complete structural breach, releasing a high-velocity wall of debris-filled waters that rush downstream damaging and/or destroying anything in its path.[4]

Dam failures can result from one or a combination of the following reasons:

- Overtopping caused by floods that exceed the capacity of the dam
- Deliberate acts of sabotage
- Structural failure of materials used in dam construction
- Movement and/or failure of the foundation supporting the dam
- Settlement and cracking of concrete or embankment dams
- Piping and internal erosion of soil in embankment dams
- Inadequate maintenance and upkeep[5]

The following activities are conducted nationally by FEMA as part of dam safety activities:

- $3.25 million over a five-year period for training assistance to state engineers;
- $9 million over a five-year period in research funds to identify more effective techniques to assess, construct and monitor dams;
- $38.7 million over five years split among the states, based on the relative number of dams in each state, to make improvements in programs moving toward satisfying all the 13 basic statutory authorities and programmatic functions identified in the National Dam Safety Program Administration (NDSPA); and

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[2] Association of State Dam Safety Officials https://www.damsafety.org/dams101

[3] Association of State Dam Safety Officials https://www.damsafety.org/dams101

[4] FEMA Hydrologic Hazards https://www.fema.gov/media-library-data/20130726-1545-20490-4641/mhira_n3.pdf

[5] Association of State Dam Safety Officials https://www.damsafety.org/dams101

- $3.75 million over five years for the National Inventory of Dams.

The National Dam Rehabilitation and Repair Act of 2007 was introduced into the 110th Congress as HR 1098. This program provides $200 million over four years in federal grant funds to be cost-shared at 65 percent federal to 35 percent state/local for non-federal publicly owned dams.

Location

Dams provide a life-sustaining resource to people in all regions of the United States. They can provide water supply for domestic, agricultural, industrial, and community use; flood control; creation; and energy. The exact number of dams in the United States is unknown. According to the U.S. Army Corps of Engineers' (USACE) National Inventory of Dams (NID), there are over 87,000 dams in the country; however, this inventory only covers dams that meet minimum height and impoundment requirements. The USACE and FDEP both report the same 49 dams in Walton County. However, FDEP classifies two dams, Holley Lake Dam and Juniper Lake Dam as *High Hazard* dams, rather than *Significant*, as USACE classifies them (see Table 3-5-1). For the purpose of this LMS Plan Update, the USACE data will be used. Table 3-5-1.1 summarizes the number of dams and their hazard classifications in Walton County.

Table 3-5-1.1. Classification and Number of Dams in Walton County[6]

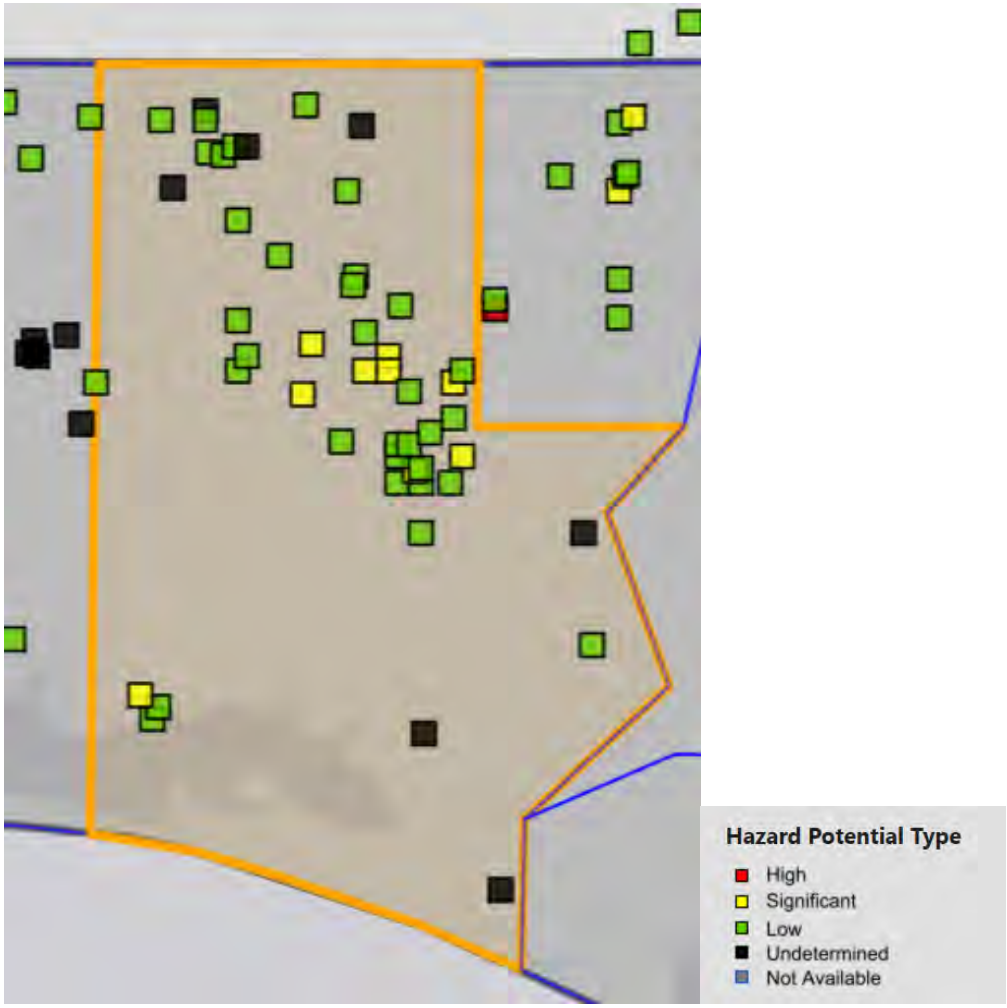
High Hazard	Significant Hazard	Low Hazard	Undetermined	Total
0*	9*	33	7	49

*Note: * indicates that FDEP classifies two dams as High Hazard and seven dams as Significant Hazard.*

USACE provides users an interactive map which shows the dam locations within Walton County (highlighted area) and their hazard potential type. See Figure *3-8-1.1*.

[6] United States Army Corps of Engineers (USACE) National Inventory of Dams
https://nid.sec.usace.army.mil/ords/f?p=105:113:10671005222885::NO:113,2:P113_STATE,P113_COUNTY:FL,131

Figure 3-5-1.1. Walton County Dams Hazard Potential Type by Location[7]



[7] United States Army Corps of Engineers (USACE) National Inventory of Dams
https://nid.sec.usace.army.mil/ords/f?p=105:113:10671005222885::NO:113,2:P113_STATE,P113_COUNTY:FL,131

Extent

The extent or magnitude of a dam failure event can be measured in terms of the classification of the dam. Additionally, there are two factors that influence the potential severity of a full or partial dam failure are: (1) the amount of water impounded; and (2) the density, type, and value of development and infrastructure located downstream[8]. Dams are a critical part of the nation's infrastructure and provide vital benefits such as flood protection, water supply, hydropower, irrigation and recreation. Yet these dams have the potential for failure and tragic consequences. As downstream development of dams increases and dams continue to age and deteriorate, they demand greater attention and investment to ensure their safety.

The USACE's National Inventory of Dams classifies dams according to their hazard potential using the following criteria:

- *High Hazard*: Loss of human life is likely if the dam fails
- *Significant Hazard*: no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities or impact other concerns.
- *Low Hazard*: This classification includes those dams, the failure of which would cause loss of the dam itself but little or no additional damage to other property. This classification applies to rural or agricultural areas where failure may damage farm buildings other than residences, agricultural lands or non-major roads
- Equal to or exceed 25 feet in height and exceed 15 acre-feet in storage
- Equal to or exceeds 50 acre-feet storage and exceeds 6 feet in height.[9]

Dam failures cause serious downstream flooding either because of partial or complete dam collapse. Failures are usually associated with intense rainfall and prolonged flood conditions; however, dam breaks may occur during dry periods as a result of progressive erosion of an embankment. The greatest threat from a dam break is to areas immediately downstream. Dam failures may or may not leave enough time for evacuation of people and property, depending on their abruptness. Seepages in earth dams usually develop gradually, and if the embankment damage is detected early, downhill residents have at least a few hours or days to evacuate. Dam failures due to the overtopping of a dam normally give sufficient lead time for evacuation.

Dam safety in Florida is regulated through several rules, which vary by activity and location. FDEP encourages owners of *High Hazard* dams to have an Emergency Action Plan (EAP) should an unusual event occur.[10] Also, anyone who owns an existing dam that needs to be repaired or plans to build a new dam needs a work permit provided through its corresponding water management district.

USACE provides a primary purpose breakdown of all 49 dams in Walton County. See Table 3-5-1.2 for this breakdown.

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[8] Association of State Dam Safety Officials https://www.damsafety.org/dam-failures

[9] United States Army Corps of Engineers (USACE) National Inventory of Dams https://nid.sec.usace.army.mil/ords/f?p=105:22:17225150550916::NO:::

[10] FDEP Dam Safety Program. https://floridadep.gov/water/engineering-hydrology-geology/content/florida-dam-safety-program

Table 3-5-1.2. Primary Purpose of Dams in Walton County[11]

Dam Purpose	Number of Dams
Debris Control	0
Fire Protection, Stock, or Small Fish Pond	4
Fish and Wildlife Pond	26
Flood Control	0
Grade Stabilization	0
Hydroelectric	0
Irrigation	8
Navigation	0
Other	0
Recreation	4
Tailings	0
Water Supply	0
Undetermined	7
TOTAL	49

USACE provides users an interactive map which shows the dams within Walton County (highlighted area) and their primary purpose. See Figure 3-5-1.2.

[11] United States Army Corps of Engineers (USACE) National Inventory of Dams https://nid.sec.usace.army.mil/ords/f?p=105:113:10671005222885::NO:113,2:P113_STATE,P113_COUNTY:FL,131

Figure 3-5-1.2. Walton County Dams Primary Purpose

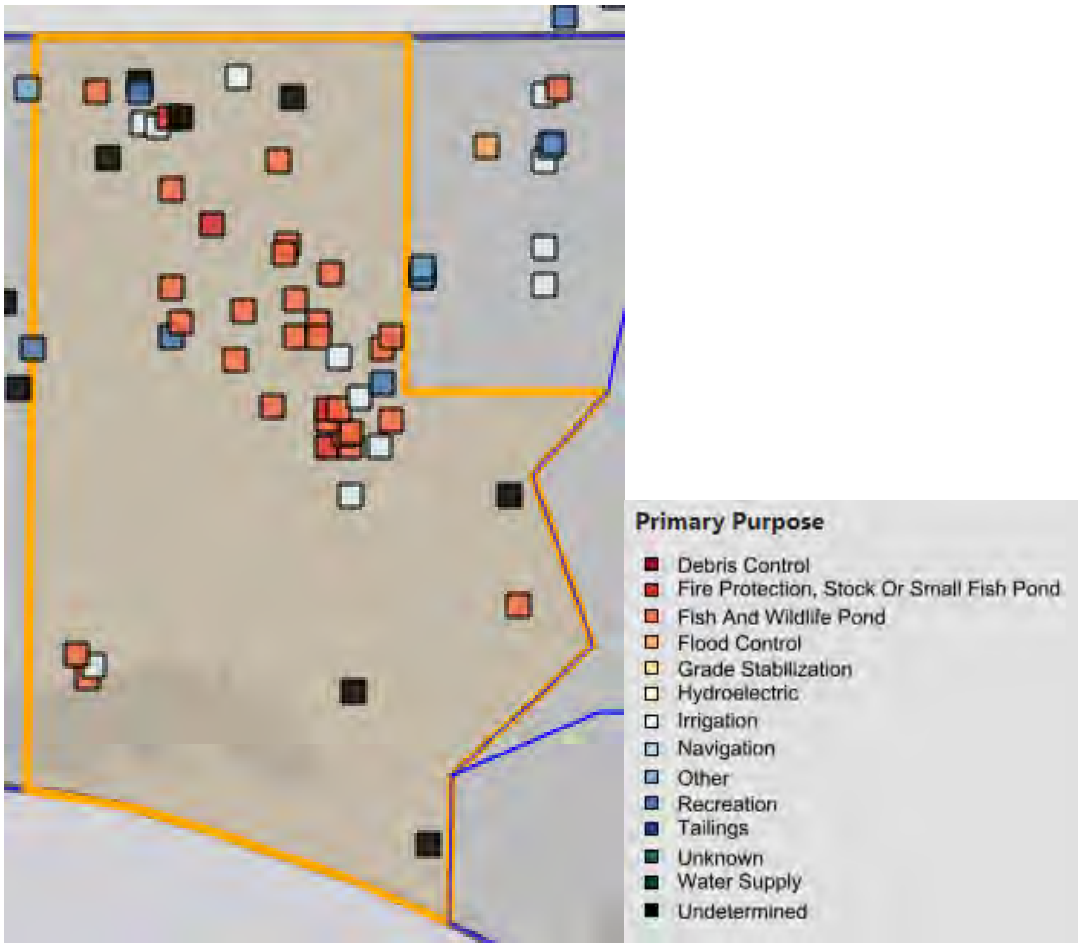

Table 3-5-1.3 summarizes the 49 dams and their hazard classifications in Walton County as per USACE data.

Table 3-5-1.3. Dams in Walton County[12]

Dam Name	Inspection Date	Owner Type	Hazard Potential	NID Storage	Primary Purpose	Dam Type
Manning Dam	5/22/1994	Private	Low	116	Irrigation	Earth
Merrifield Dam	5/23/1994	Private	Low	216	Recreation	Earth
Wise Dam No. 1	5/24/2994	Private	Low	200	Irrigation	Earth
Brown Dam	5/5/1994	Private	Low	139	Fish and Wildlife Pond	Earth

[12] United States Army Corps of Engineers (USACE) National Inventory of Dams
https://nid.sec.usace.army.mil/ords/f?p=105:18:5549241770228::NO:::

Dam Name	Inspection Date	Owner Type	Hazard Potential	NID Storage	Primary Purpose	Dam Type
Pridgen Dam	5/10/1994	Private	Low	124	Fish and Wildlife Pond	Earth
Huckaba Dam	5/11/1994	Private	Low	90	Fish and Wildlife Pond	Earth
Girl Scout Dam	5/12/1994	Private	Low	75	Fish and Wildlife Pond	Earth
Underwood Dam	5/13/1994	Private	Low	130	Fish and Wildlife Pond	Earth
Holley Lake Dam*	8/28/2019	Private	Significant	3,093	Fish and Wildlife Pond	Earth
Juniper Lake Dam*	8/12/2019	Local Government	Significant	3,630	Fish and Wildlife Pond	Earth
Strickland Dam #2	5/14/1994	Private	Low	102	Fish and Wildlife Pond	Earth
Bruner Dam	5/5/1994	Private	Significant	99	Fish and Wildlife Pond	Earth
Pendery Dam	5/5/1994	Private	Significant	160	Fish and Wildlife Pond	Earth
Strickland Dam #1	5/5/1994	Private	Significant	1,200	Fish and Wildlife Pond	Earth
Gulf Coast Counc.	5/5/1994	Private	Significant	291	Fish and Wildlife Pond	Earth
E. King Dam	5/5/1994	Private	Significant	280	Fish and Wildlife Pond	Earth
Ingram Dam #2	5/15/1994	Private	Low	71	Fish and Wildlife Pond	Earth
Ingram Dam #3	5/16/1994	Private	Low	107	Fish and Wildlife Pond	Earth
Spires Dam	5/17/1994	Private	Low	158	Fish and Wildlife Pond	Earth
Sharon Estate Dam	5/18/1994	Private	Low	124	Irrigation	Earth
Shoal River Dam	5/18/1994	Private	Low	171	Recreation	Earth
Head Bruce Creek Dam	5/14/1994	Private	Low	58	Recreation	Earth
Bruce Creek Dam	5/10/1994	Private	Low	89	Irrigation	Earth
Brisco Dam	5/11/1994	Private	Low	76	Irrigation	Earth
Todd & Co Dam	5/12/1994	Private	Low	115	Irrigation	Earth
Sampson Dam #1	5/13/1994	Private	Low	347	Fish and Wildlife Pond	Earth
Chesser Dam	5/14/1994	Private	Low	70	Fish and Wildlife Pond	Earth
Cobin Dam	5/15/1994	Private	Low	60	Irrigation	Earth
Hyberts Dairy Dam	5/16/1994	Private	Low	85	Irrigation	Earth
Rivard Dam	5/17/1994	Private	Low	64	Fish and Wildlife Pond	Earth
Pine Log Creek Dam	5/13/1994	Private	Low	63	Fish and Wildlife Pond	Earth
Turkey Creek Dam	5/14/1994	Private	Low	72	Fish and Wildlife Pond	Earth

Dam Name	Inspection Date	Owner Type	Hazard Potential	NID Storage	Primary Purpose	Dam Type
FL Walton County No Name #1	5/23/1994	Private	Low	50	Fire Protection, Stock or Small Fish Pond	Earth
FL Walton County No Name #2	5/24/1994	Private	Low	60	Fire Protection, Stock or Small Fish Pond	Earth
FL Walton County No Name #3	5/5/1994	Private	Low	59	Fire Protection, Stock or Small Fish Pond	Earth
FL Walton County No Name #4	5/10/1994	Private	Low	99	Fire Protection, Stock or Small Fish Pond	Earth
FL Walton County No Name #5	5/11/1994	Private	Low	50	Fire Protection, Stock or Small Fish Pond	Earth
Burgess Dam	5/5/1994	Private	Significant	163	Fish And Wildlife Pond	Earth
H. Bell	5/15/1994	Private	Low	119	Fish And Wildlife Pond	Earth
Ingram Dam #1	5/5/1994	Private	Significant	110	Fish And Wildlife Pond	Earth
Dam #2	5/16/1994	Private	Low	128	Fish And Wildlife Pond	Earth
Dam #1	5/10/1994	Private	Low	93	Fish And Wildlife Pond	Earth
Quiet Lake Dam	N/A	Private	Undetermined	660	Undetermined	Earth
WDF1	N/A	Private	Undetermined	324	Undetermined	Earth
WDF2	N/A	Private	Undetermined	554	Undetermined	Earth
WDF3	N/A	Private	Undetermined	729	Undetermined	Earth
WDF4	N/A	Private	Undetermined	228	Undetermined	Earth
WF1	N/A	Private	Undetermined	542	Undetermined	Earth
WF2	N/A	Private	Undetermined	500	Undetermined	Earth

*Note: * indicates that FDEP classifies these dams as High Hazard Dams. N/A indicates the information was not available.*

Previous Occurrences

According to the Walton County Emergency Management, there has been one dam failure incident on April 2, 2016 of the WF1 Dam in Freeport due to a three - day long heavy rain event.[13] According to the Walton County Emergency Management Facebook page, the damage on County Highway 3280 was caused by the overtopping and subsequent breach of the earthen dam. There was approximately one foot of rushing water that flowed over the road, causing it to

[13] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=624284

wash out. No injuries or fatalities occurred as a result of this dam breach incident. Damage was contained to the roadway.

Probability of Future Events

Dam failure events are infrequent and usually coincide with events that cause them, such as earthquakes, tropical storms, and excessive rainfall and hurricanes. As noted in the Previous Occurrences and Losses section, dam failures have occurred once in the past. There is a "residual risk" associated with dams. Residual risk is the risk that remains after safeguards have been implemented. For dams, the residual risk is associated with events beyond those that the facility was designed to withstand. However, the probability of any type of dam failure is low in today's dam safety regulatory and oversight environment.

Table 3-5-1.4 shows these statistics, as well as the annual average number of events and the percent chance of the dam failure hazard occurring in Walton County in future years based on the historic record.

Table 3-5-1.4. Probability of Future Occurrence of Dam Failure Events

Hazard Type	Number of Occurrences Between 1950 and 2018	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Dam Failure	1	0.01	70.00	0.01	1.43%

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined dam failure to be a low priority hazard in Walton County. As described in the profile above, dam failure events within the county are uncommon events with an annual probability just over 1.0. Dam failure events have a low to high range of impact, accounting for annual damages that are less than $10,000. The probable hazard magnitude for Dam Failure is low, including no recorded injuries or deaths, and less than a 24-hour warning time before the event. Table 3-5-1.5 outlines the hazard rankings for each of the hazard priority criteria related to Dam Failure. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3.5-1.5. Dam Failure Hazard Priority

Flood Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Dam Failure	Low	Medium	Low	High	Low

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

Dam failure events may occur suddenly, without warning, or during normal operating conditions. Additionally, events can occur as a result of a natural hazard event, including severe weather, earthquakes, tropical storms, hurricanes, and flooding. The direct and indirect losses associated with dam failures include injury and loss of life, damage to structures and infrastructure, agricultural losses, utility failure and stress on community resources. The warning time for a dam failure event is often limited, which contributes to the direct and indirect losses.

The entire population residing within a dam failure inundation zone is considered exposed and vulnerable to an event. The potential for loss of life is affected by the capacity and number of evacuation routes available to populations living within these areas. Those most at risk include the economically disadvantaged and the population over the age of 65; economically disadvantaged populations are likely to evaluate their risk and make the decision to evacuate based upon the net economic impact to their family, while elderly populations are likely to seek or need medical attention. The availability of medical attention may be limited due to isolation during a flood event and other difficulties in evacuating.

Dam failure inundation maps and downstream hazard areas are considered sensitive information and were not available to conduct a quantitative risk assessment. The following discusses the County's vulnerability to the hazard in a qualitative nature.

All buildings and infrastructure located in the dam failure inundation zone are considered exposed and vulnerable. Property located closest to the dam inundation area has the greatest potential to experience the largest, most destructive surge of water. All transportation infrastructure in the dam failure inundation zone is vulnerable to damage and potentially cutting off evacuation routes, limiting emergency access, and creating isolation issues. Utilities such as overhead power lines, cable and phone lines could also be vulnerable. Loss of these utilities could create additional isolation issues for the inundation areas.

Dam failure can cause severe downstream flooding and may transport large volumes of sediment and debris, depending on the magnitude of the event. Widespread damage to buildings and infrastructure affected by an event would result in large costs to repair these locations. In addition to physical damage costs, businesses can be closed while flood waters retreat and utilities are returned to a functioning state.

As discussed above, climate change can have great impacts upon the functionality of dams in the County. Dams are constructed based on assumptions about a river's flow, which is expressed as a hydrograph. Changes in precipitation will alter surface and groundwater flow, which will directly affect riverine flow. Climate change could cause these dams to become obsolete.

3.5.2 Epidemic / Pandemic

Description

An epidemic refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area.[14] A pandemic refers to an epidemic that has spread over several countries or continents, usually affecting a large number of people. The best, and most current, example of the difference between an epidemic and a pandemic is the Corona Virus Disease of 2019 (COVID-19). The disease was an epidemic in Wuhan, Hubei Province in China before quickly spreading to other countries and continents becoming a pandemic.[15]

Highly pathogenic or infectious diseases that result in high incidents of morbidity and mortality are considered high consequence infectious diseases (HCID). Most instances of HCIDs are typically naturally occurring organisms such as bacteria, viruses, or toxins. Severity and impact of an HCID will depend on several factors, including the biological agent, scale of exposure, and mode of transmission. Commonly known examples of HCIDs include coronaviruses, and highly pathogenic avian influenza.

Coronaviruses

- Coronaviruses are common throughout the world. Many coronaviruses cause mild to moderate upper respiratory illness; however, some coronaviruses can cause severe illness.
- Transmission: Most known coronaviruses typically infect only one animal species or, at most, a small number of closely related species. However, some coronaviruses, such as COVID-19, SARS 2003 and Middle East Respiratory Syndrome (MERS), can infect people and animals.
- MERS affects the respiratory system (lungs and breathing tubes). Most MERS patients develop severe acute respiratory illness with symptoms of fever, cough, and shortness of breath. MERS CoV has a high morbidity/mortality rate; 3-4 of every 10 patients reported with MERS CoV have died.
- MERS CoV Transmission: MERS CoV has spread from ill people to others through close contact, such as caring for or living with an infected person. MERS can affect anyone. MERS patients have ranged in age from younger than 1 to 99 years old.

Highly Pathogenic Avian Influenza (HPAI)[16]

More than 100 species of wild bird and domestic poultry populations are known to have had avian influenza A viruses. While the majority of the viruses isolated have been Low Pathogenic Avian Influenza (LPAI) A viruses, HPAI A viruses have been detected in poultry populations. Notably, more than 700 human infections with Asian HPAI H5N1 viruses reported within Asia, Africa, the Pacific, Europe, and the Near East since 2003, with the majority of cases from Indonesia, Vietnam and Egypt. While human infections with this virus are rare, approximately 60% of the affected individuals have died.

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[14] Principles of Epidemiology in Public Health Practice, 3rd Edition, October 2006, Introduction to Epidemiology

[15] The continuing 2019-nCoV epidemic threat of novel coronaviruses to global health — The latest 2019 novel coronavirus outbreak in Wuhan, China, International Journal of Infectious Diseases, February 1, 2020

[16] https://www.cdc.gov/flu/avianflu/h5n1-virus.htm

In 2011, the United Nations Food and Agriculture Organization identified the countries of Bangladesh, China, Egypt, India, Indonesia, and Vietnam to be endemic for Asian HPAI H5N1 virus in domestic poultry populations.

HPAI (and LPAI) are transmitted similarly to the commonly known ways of transmission of seasonal influenza. These methods include:

- Infected Birds and Contaminated Surfaces: Having unprotected contact with infected birds or contaminated surfaces. In some cases, however, no direct contact has been reported.
- Person to Person: Droplet transmission (large and small particulates) and/or secretion dispersion through the air from an infected individual during breathing, sneezing, coughing, or talking.
- Stability: While avian influenza is considered an airborne infection, it also has the ability to survive on and contaminate surfaces for up to two weeks on hard surfaces and up to several months in water. This is an important factor to consider when implementing infection control and containment measures.
- Poultry Handling: No human infections have been reported from proper handling of poultry meat or from eating properly cooked poultry or poultry products.
- Due to the possibility of additional outbreaks, surveillance for HPAI (and LPAI) in U.S. birds is ongoing.[17]

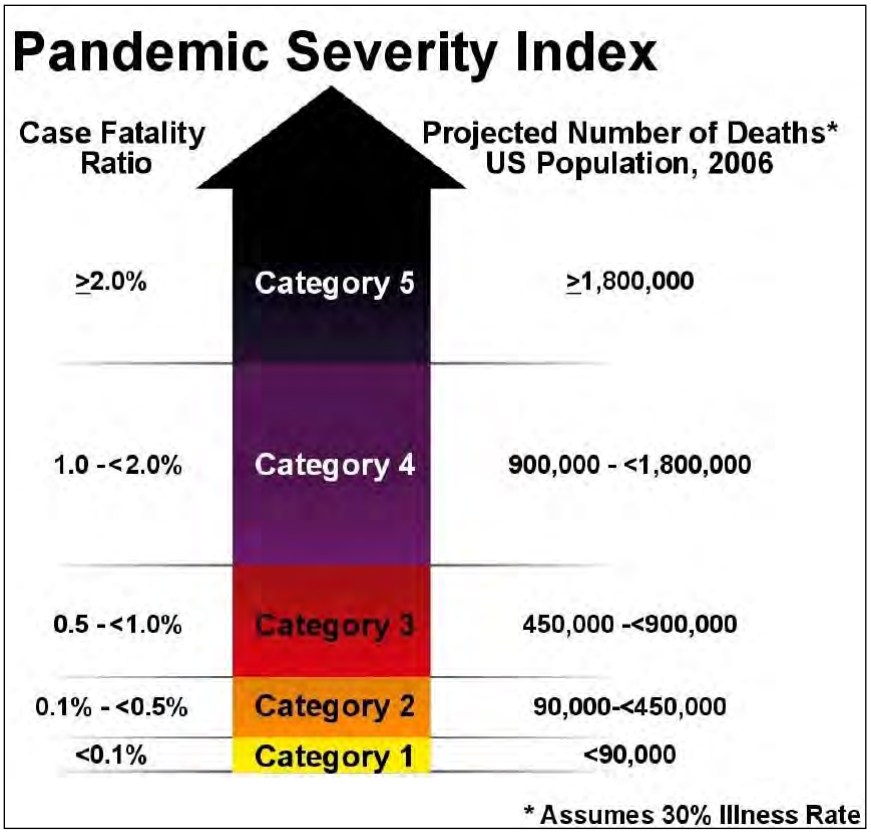
Location and Extent

Any portion of the county could be affected by an epidemic or pandemic, however, the more densely populated areas such as cities or areas where large numbers of individuals congregate for work or leisure, will have greater potential for person-to-person spread of disease. The possible extent of infection of a population will be dependent on several factors including the type of disease, how long people are infectious, how easily it is spread, and how susceptible the population is to the disease.

The CDC and Prevention Community Strategy for Pandemic Influenza Mitigation guidance introduced a Pandemic Severity Index (PSI), which uses the case fatality ratio as the critical driver for categorizing the severity of a pandemic. The index is designed to estimate the severity of a pandemic on a population to allow better forecasting of the impact of a pandemic, and to enable recommendations on the use of mitigation interventions that are matched to the severity of influenza pandemic. Pandemics are assigned to one of five discrete categories of increasing severity (Category 1 to Category 5) (CDC 2016). Figure illustrates the five categories of the PSI.

[17] https://www.cdc.gov/flu/avianflu/h5/index.htm

Figure 3-5-2.1. Pandemic Severity Index[18]



Previous Occurrences

Coronaviruses

At the time of this LMS update in April of 2020, Walton County is in the throes of the COVID-19 pandemic. As of May 29, 2020, there were 109 positive cases of COVID -19 in the county with 9 deaths.[19] Statewide there have been 53,285 positive cases with 2,364 deaths. Dade County had the largest number of cases in the State with 17,168 positive cases and 633 deaths.[20] Nationwide there have been 1.76 million positive cases and 103,000 deaths.[21] Worldwide there have been 5.7 million positive cases and 357,688 deaths in 216 countries.[22] Other notable coronavirus events include MERS which has primarily affected countries in and near the Arabian Peninsula as well as other countries due to human migration and travel (e.g., the Republic of Korea in 2015). SARS was first reported in Asia in 2003 then spread to two

[18] CDC. Pandemic Severity Index. https://www.cdc.gov/media/pdf/MitigationSlides.pdf
[19] Walton County, Florida website, https://www.co.walton.fl.us/1278/COVID-19
[20] Florida's COVID-19 Data and Surveillance Dashboard, https://fdoh.maps.arcgis.com/apps/opsdashboard/index.html#/8d0de33f260d444c852a615dc7837c86
[21] CDC COVID-19 website, https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html
[22] World Health Organization website, https://www.who.int/emergencies/diseases/novel-coronavirus-2019

dozen countries in North America, South America and Europe before it was contained through social distancing and isolation measures.

Highly Pathogenic Avian Influenza

Please note that not all events that have occurred in the County are included due to the extent of documentation and the fact that not all sources may have been identified or researched. Loss and impact information could vary depending on the source. Therefore, the accuracy of previous occurrences discussed is based only on the available information identified during research for this LMS Update. According to Walton County DOH there has been no record of HPAI in Walton County.

December 2014 HPAI H5 Infections in U.S. Domestic Poultry: H5 strains were identified in U.S. domestic backyard and commercial flocks, captive wild birds, and wild birds by the U.S. Department of Agriculture (USDA). First detected in December 2014, HPAI H5 cases continued to be identified into mid-June 2015. To that end, H5 avian influenza virus was identified in 21 U.S. states (15 states with outbreaks in domestic poultry or captive birds and 6 states with H5 detections in wild birds only). One of the more notable HPAI pandemics occurred from 1918 to 1919 resulting of the deaths of approximately 50 million people worldwide. Infections were facilitated through the extensive travel and close person to person contact as a result of World War I.

Probability of Future Events

Future occurrences of epidemics and pandemics are likely. According to the Florida Department of Health in Walton County Strategic Plan, "Increasing population and global travel offers more possibility of environmental issues and communicable disease spread."[23] Planning for pandemic scenarios has been a priority for public health preparedness efforts.

Table 3-5-2.1 shows the annual average number of events and the percent chance of the epidemic / pandemic hazard occurring in Walton County in future years based on the historic record.

Table 3-5-2.1. Probability of Future Occurrence of Epidemic / Pandemic Events in Walton County

Hazard Type	Number of Occurrences Between 1950 and 2018	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Epidemic	1	0.01	70.00	0.01	1.43%
Pandemic	3	0.04	23.33	0.04	4.29%
TOTAL	4	0.06	17.50	0.06	100%

[23] Florida Department of Health in Walton County | Strategic Plan 2019-2021, Appendix 6, Strengths, Weaknesses, Opportunities and Threats, http://walton.floridahealth.gov/about-us/strategic-plan/_documents/Walton-StrategicPlan-2019-2021.pdf

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined Epidemic / Pandemic Hazard to be a medium priority hazard in Walton County. As described in the profile above, epidemic / pandemic events within the county are uncommon events with an annual probability of 1 to 4 percent. Epidemic / pandemic events have a high range of impact. The probable hazard magnitude for the Epidemic / Pandemic Hazard is medium, including high probability of injuries or deaths, and less than a 24-hour warning time before the event. Table 3-5-2.2 outlines the hazard rankings for each of the hazard priority criteria related to Epidemic / Pandemic. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-2.2. Epidemic/Pandemic Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Epidemic / Pandemic	Medium	High	High	Medium	Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

As evidenced from the COVID-19 pandemic, such as event can result in the potential illness and death of millions of individuals. The economic effects due to quarantine actions and fear of the public can result is lost wages, lost jobs, and can overtax healthcare facilities while resulting in loss of revenue, and potentially, business failure for industries such as airlines, hotels, tourism, restaurants, and certain retail and service establishments.

Environmental risks would depend largely on the type of infectious agent and the scope of infection. If flocks or livestock are found to be infected, they may have to be destroyed necessitating the disposal of a large number of animals and resulting in severe impacts to agriculture operations. The disposal of contaminated waste from the treatment infected person might have to be considered as well as the potential storage issues of a large number of deceased individuals either through temporary refrigeration, burial or incineration.

Operations to governmental operations and businesses could be severely impacted from the loss of revenue and potential loss of staffing. Continuity of operations planning to designate processes for succession of leadership, delegations of authority, and operational resilience will need to be a strong consideration in preparedness for epidemics and pandemics. The potential for stress on healthcare staffing and supply chains will also need to be considered in future planning efforts.

3.5.3 Disease Outbreak – Animal & Plant Diseases

Description

We rely on the agriculture industry to provide us with a safe and reliable food supply. However, just as there are diseases that can affect the health of humans, there are diseases and pests that can harm the plants and animals in our food supply. The US Department of Agriculture's Animal and Plant Health Inspection Service is tasked with strengthening, preventing, detecting, and mitigating invasive pests and diseases. This is done through conducting inspections to detect any harmful pest or diseases, enhancing detection capabilities, safeguarding nursey production, providing outreach and education, and rapidly responding to potential hazards.[24]

At the state level, the Florida Department of Agriculture and Consumer Services has programs to promote Florida agriculture, protect the environment, safeguard consumers, and ensure the safety and wholesomeness of food. At the local level the University of Florida Institute of Food and Agricultural Sciences operates the Cooperative Extension Service for the County. It is the responsibility of the Cooperative Extension to educating the public regarding agriculture, lawn and garden, and natural resources in the communities that they serve.

According to the Walton County Cooperative Extension website, there are over 600 farms in Walton County encompassing 140,000 acres.[25] These farms produce cotton, peanuts, pecans, hay, cattle and small livestock. Cattle production alone in Walton County brings in more than $11 million in revenue. These farms and ranches in Walton County could be adversely affected by plant and animal diseases and pests. In addition, the forested areas in the County could also be affected as well resulting in the devastation of plants, trees and the animals that live there. For the purposes of the LMS, the diseases and pests listed below will be examined:

- Foot and Mouth Disease
- Avian Influenza
- Eastern Lubber Grasshopper
- Emerald Ash Borer

Foot and Mouth Disease

Foot and mouth disease, or also referred to as hoof and mouth disease, is a highly communicable disease that affects cloven-hooved animals such as cattle, pigs, sheep, goats, antelope, deer and bison. The disease is characterized by fever and vesicles in the mouth, muzzle, and feet and is spread through direct contact or aerosolized virus via respiratory secretions, milk, semen, and ingestion of feed from infected animals (meat, offal, milk). The disease is typically not deadly, except in young animals, but can leave the animal lame and weak and unable to produce meat

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[24] United States Department of Agriculture, Animal and Plant Inspection Service Website, https://www.aphis.usda.gov/aphis/ourfocus/planthealth/ppa-ppdmdpp/ppdmdpp/plant-pest-disease-managemet-disaster-prevention-program

[25] IFAS Extension Walton County Website, http://sfyl.ifas.ufl.edu/walton/agriculture/

and milk the way they did before. The disease can be passed from animal to animal by coming in contact with contaminated farming equipment, vehicles, clothing, feed and by domestic predators. Controlling the disease is achieved through vaccination, trade restrictions with countries where the disease is endemic, quarantines, and culling of both infected and healthy animals from an affected area. Only rarely has the disease been passed from animals to humans.[26]

Avian Influenza

Discussed earlier in this section regarding epidemics and pandemics, avian influenza is a variety of influenza that has adapted to birds but has been shown to adapt to person to person transmission. Currently, the Centers for Disease Control and Prevention has found the human risk to be low from current strains of the virus. Poultry coming in from other countries is tested for avian influenza prior to entry. Countries with ongoing outbreaks are restricted from shipping poultry into the U.S. In Florida, the Florida Department of Agriculture and Consumer Services regularly monitors flocks of domestic poultry for avian influenza. In the event the virus is found, the state will lead actions to immediately contain the virus and eradicate the disease to prevent further spread to other areas.[27]

Eastern Lubber Grasshopper

The Easter Lubber Grasshopper is a large, flightless grasshopper that can cause serious damage to row crops, citrus groves and ornamental trees. The insect is native to Florida and the Southeastern Coastal Plain of the U.S.[28] These grasshoppers can completely strip foliage from plants. Management of the grasshoppers is achieved through either picking them off the plants by hand if there are not very many, to using insecticides.[29]

Emerald Ash Borer

The Emerald Ash Borer is a beetle that was first noticed in the United States in Michigan in 2002. It has spread to the southeastern U.S. and has killed millions of ash trees. The beetle is believed to pose a threat to ash trees in Florida. The adult beetle feed on the foliage of the trees and do-little damage, but the larvae feed on the inner bark of the trees causing severe damage and ultimately the death of the trees. It is very difficult to rid forests of the beetle once they are established. The best method of controlling the insect is through limiting the movement of firewood and other processed wood into and within the state.[30] Insecticides can be effective in eliminating the emerald ash borer if applied at the right time.

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[26] APHIS Veterinary Services, Foot and Mouth Disease Factsheet, https://www.aphis.usda.gov/publications/animal_health/2013/fs_fmd_general.pdf

[27] Florida Department of Agriculture and Consumer Services, Avian Influenza Website, https://www.fdacs.gov/Consumer-Resources/Animals/Animal-Diseases/Avian-Influenza

[28] Florida Department of Agriculture and Consumer Services, Eastern Lubber Grasshopper Website, https://www.fdacs.gov/Divisions-Offices/Plant-Industry/Pests-Diseases/Eastern-Lubber-Grasshopper

[29] University of Florida, IFAS Extension, Eastern Lubber Grasshopper, http://edis.ifas.ufl.edu/in132

[30] Florida Department of Agriculture and Consumer Services, Emerald Ash Borer Website https://www.fdacs.gov/content/download/68335/file/Pest%20Alert%20-%20Agrilus%20planipennis,%20Ash%20Borer.pdf

Location and Extent

The location and extent of invasive species depend on the preferred habitat of the species, as well as the species' ease of movement and establishment. While an animal and disease outbreak could occur anywhere in Walton County, according to Walton County Agriculture, most farms in Walton County are located in the northern portion of the county where soils are more conducive to growing crops. Levels of threat from invasive species range from nuisance to widespread. The threat typically intensifies when the ecosystem or host species is already stressed, such as during periods of drought.

While native to the area, a significant increase in the populations of the eastern lubber grasshopper could result in an infestation and damage to the farms in those areas. Cattle and other livestock, on the other hand, are raised throughout the county. A single case of Foot and Mouth Disease in an animal, or Avian Influenza at a poultry farm, will trigger immediate measures by state and federal officials to isolate and eliminate the threat. Failure to act quickly could result in an outbreak of disease among local herds and flocks, or an epizootic if the disease spreads well beyond the local area. An epizootic, is similar to an epidemic in humans but takes place in non-human animal populations.

Forested areas are located throughout the county. Should the emerald ash borer establish a hold in the county, the ash trees, and nurseries that supply ash trees, across the county could be at risk of damage.

The extent of an animal or disease outbreak could result in the loss of a portion of or the entire crop or livestock farm, monetarily costing the farmer and consumer.

Previous Occurrences

Please note that not all events that have occurred in the County are included due to the extent of documentation and the fact that not all sources may have been identified or researched. Loss and impact information could vary depending on the source. Therefore, the accuracy of previous occurrences discussed is based only on the available information identified during research for this LMS Update.

Foot and Mouth Disease

According to Walton County DOH there has been no record of Foot and Mouth Disease in Walton County.

The United States has had nine outbreaks of Foot and Mouth disease since its discovery in 1870. In 1914 an outbreak originated in Michigan but spread throughout the U.S. The disease was eradicated at a cost of $4.5 million and the slaughter of over 170,000 cattle, sheep and swine. An outbreak in California in 1924 led to the slaughter of 109,000 farm animals and 22,000 deer. In 2007 an outbreak occurred in the United Kingdom but was eradicated within a couple of months through the culling of herds and banning the movement of cattle and pigs in the area. Most recently, three outbreaks occurred in Japan and Korea from 2010 to 2011. In South Korea, a mass cull of pigs was conducted to stop the outbreak. Approximately 3 million pigs and 107,000 cattle were culled to halt the outbreak.[31]

Avian Influenza

According to Walton County DOH there has been no record of HPAI in Walton County.

[31] Wikipedia Foot and Mouth Disease, https://en.wikipedia.org/wiki/Foot-and-mouth_disease

Avian influenza is discussed in some detail in the epidemic/pandemic section of this plan as it relates to previous outbreaks and human to human transmission of the disease. In 2015 to 2016, a HPAI strain of the disease affected domestic and wild birds in 16 Midwest states. Cost to eradicate the threat cost $49 million. Since that time, the Florida Department of Agriculture and Consumer Services has strengthened pre-import testing requirements for the disease for poultry being shipped from affected states.[32]

Eastern Lubber Grasshopper

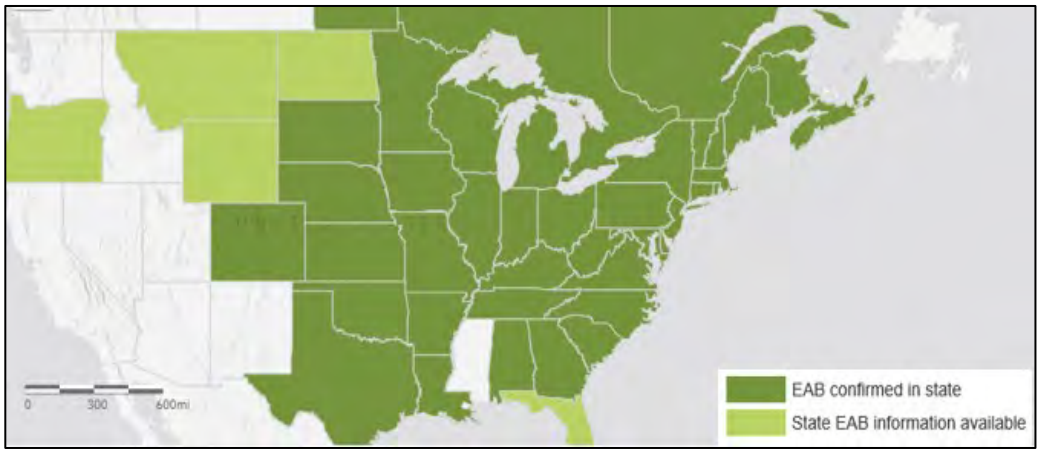
According to Walton County DOH there has been no record of Eastern Lubber Grasshoppers in Walton County.

The Eastern Lubber Grasshopper is native to the state. Ongoing efforts consist of monitoring and controlling their populations and thereby limiting the damage they can cause to crops. Methods of control consist of manually removing them or using insecticides.

Emerald Ash Borer

Since its discovery in 2002, the Emerald Ash Borer has progressed to 35 states across the eastern half of the U.S. The borer has damaged millions of ash trees in these states and resulted in the removal of and preventive treatment of trees at the cost of millions of dollars. As of the date of the development of this plan, the Emerald Ash Borer has not been detected in the State of Florida, but it has been detected in the two states (Georgia and Alabama) that border Florida. See Figure 3-5-3.1 for the location of the emerald ash border.

Figure 3-5-3.1. Emerald Ash Borer Progression[33]



Probability of Future Events

Even though there are no historical outbreaks of foot and mouth disease, avian influenza, eastern lubber grasshopper and the emerald ash borer in Walton County, it does not preclude the County from an outbreak in the future. For this reason, future occurrences of foot and mouth disease, avian influenza, eastern lubber grasshopper and the emerald

[32] Florida Farm Bureau, Avian Influenza update, February 2016, https://www.floridafarmbureau.org/avian-influenza-update/

[33] Emerald Ash Borer Information Network Website, http://www.emeraldashborer.info/

ash borer in Walton County are considered somewhat likely. While possible, the strict surveillance and control systems in place would make an occurrence of these plant and animal diseases in Walton County an infrequent occurrence.

It is estimated that Walton County will experience direct and indirect impacts of animal and plant disease outbreaks in the future, causing potential disruption or damage to agricultural activities. Table 3-5-4.2 calculates the probability of future events based on the number of historical events.

Table 3-5-4.2. Probability of Future Animal and Plant Disease Outbreaks Events in Walton County

Hazard Type	Number of Occurrences between 1954 and 2019	Rate of Occurrence	Recurrence Interval (in years)	Probability of Event Occurring in Any Given Year	% Chance of Occurring in Any Given Year
Foot and Mouth Disease	0	0	0	0	0
Eastern Lubber Grasshopper	0	0	0	0	0
Emerald Ash Borer	0	0	0	0	0
Avian Influenza	0	0	0	0	0

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined *Disease Outbreak- Animal & Plan Diseases* to be a medium priority hazard in Walton County. Table 3-5-3.1 outlines the hazard rankings for each of the hazard priority criteria related to *Disease Outbreak- Animal & Plan Diseases*. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-3.1. Disease Outbreak- Animal & Plan Diseases Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Foot and Mouth Disease	Low	Low	Low	Medium	Medium
Eastern Lubber Grasshopper	High	Medium	Low	Medium	Medium
Emerald Ash Borer	Medium	High	Low	Medium	Medium

Avian Influenza*	Medium	High	High	Medium	Medium

*Note: * see the Disease Outbreak Profile for the full Vulnerability Assessment for this hazard.*

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

The vulnerability of humans from a foot and mouth disease outbreak would be low as the disease does not easily spread to humans and infection is extremely rare. The disease is not fatal to animals but can leave them in a weakened and lame condition. Culling herds in affected areas is commonly used to eradicate disease in conjunction with the vaccination and quarantine of well animals.

Chief among environmental considerations will be the disposition of large numbers of culled livestock through burial or incineration. In addition, cleaning of farm equipment, clothing and anything else that may have come in contact with affected animals.

The quarantining and or culling of herds would have a grave impact on ranching operations. In addition, markets for meat supplied to other states and countries may be restricted until the outbreak is over and the animals in the region declared free of disease.

Table 3-5-3.2. Annualized Damages from Food and Mouth

Annualized Events	Annualized Property Damage	Annualized Crop Damages
None recorded	0	0

Eastern Lubber Grasshopper

As the Eastern Lubber Grasshopper is native to the state and county, the probability of an occurrence is high.

The vulnerability to humans of an infestation of eastern lubber grasshopper is low as the insect is not a physical threat to humans. However, the threat to crops and ornamental trees is a threat if the grasshoppers go unchecked. Vigilance is needed by farmers to monitor their crops for the grasshopper and to take prompt actions to limit damage.

Environmental considerations will be the use of insecticides. Farmers should make sure the insecticides are used safely and according to labeling.

Operations can be impacted through the potential loss of crops and the potential costs associated with monitoring for the insect and the purchase and applications of insecticide.

Table 3-5-3.3. Annualized Damages from Eastern Lubber Grasshopper

Annualized Events	Annualized Property Damage	Annualized Crop Damages
Ongoing	None	There is no estimate of crop damage from the eastern lubber grasshopper.

Emerald Ash Borer

While the Emerald Ash Borer has not been detected in the State currently, given the progression of the insect south to states bordering Florida, is likely that Walton County will encounter this insect.

The vulnerability of humans to an infestation of the emerald ash borer is low as they do not pose a direct threat to humans. An indirect threat could be posed from falling dead trees and limbs falling from affected trees.

Chief among environmental considerations potential deaths of many ash trees that has been seen where the insect has already been. Loss of trees may also impact the stability of soil in affected areas. Insecticides used by some jurisdictions to save ash trees to prevent them from being attacked by the emerald ash borer must be used in accordance with safety guidelines and instructions to limit the impact on the environment.

Jurisdictions in areas where the Emerald Ash Borer have affected ash trees have spent millions of dollars to cut down affected trees or to use insecticide to prevent infestation. Operations of nurseries who grow ash trees could be adversely affected by the Emerald Ash Borer. In addition, homeowners may have trees that are affected that may have to be cut down and replaced or take actions to protect their trees.

Table 3-5-3.4. Annualized Damages from Emerald Ash Borer

Annualized Events	Annualized Property Damage	Annualized Crop Damages
Probability between 1.0 and 0.5	Over $150,000	0

For Avian Influenza vulnerability data see *Section 3.5.2 Epidemic/ Pandemic*.

3.5.4 Drought

Description

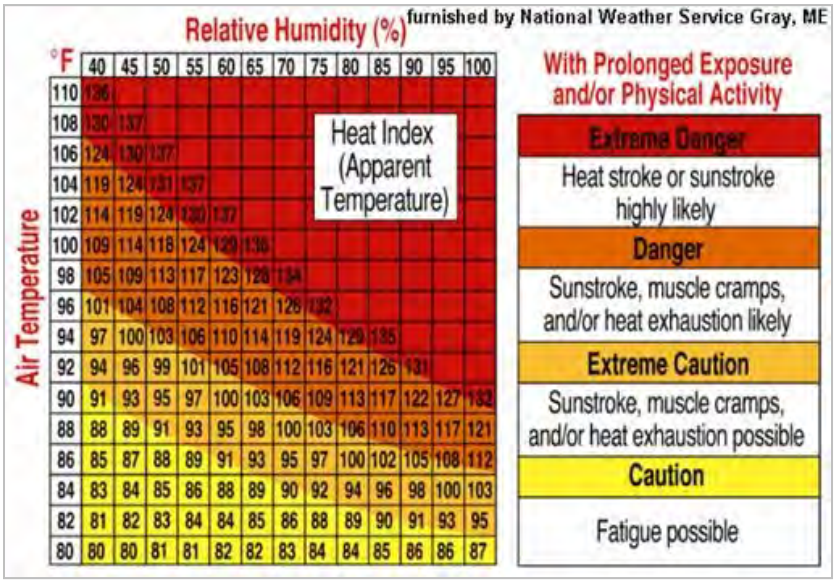
Drought is a period characterized by long durations of below normal precipitation. Drought conditions occur in virtually all climatic zones, yet characteristics of drought vary significantly from one region to another, relative to normal precipitation within respective regions. Drought can affect agriculture, water supply, aquatic ecology, wildlife, and plant life. Drought is a temporary irregularity in typical weather patterns and differs from aridity, which reflects low rainfall within a specific region and is a permanent feature of the climate of that area.

Location and Extent

A drought could occur anywhere within Walton County. Climate divisions are regions within a state that are climatically homogenous. The National Oceanic and Atmospheric Administration (NOAA) has divided the U.S. into 359 climate divisions. The boundaries of these divisions typically coincide with the county boundaries, except in the western U.S., where they are based largely on drainage basins (U.S. Energy Information Administration, Date Unknown). According to NOAA, Florida is made up of seven climate divisions: Northwest, North, North Central, South Central, Everglades and SW Coast, Lower East Coast and Keys. Walton County is located in the Northwest Climate Division.[34]

The "heat index" or "apparent temperature" is often used to measure how hot the air "feels" based on temperature and humidity. The index can be used as an indicator of potential health effects. See below Figure 3-5-4.1 for the NWS Heat Index Chart.

Figure 3-5-4.1. NWS Heat Index Chart[35]

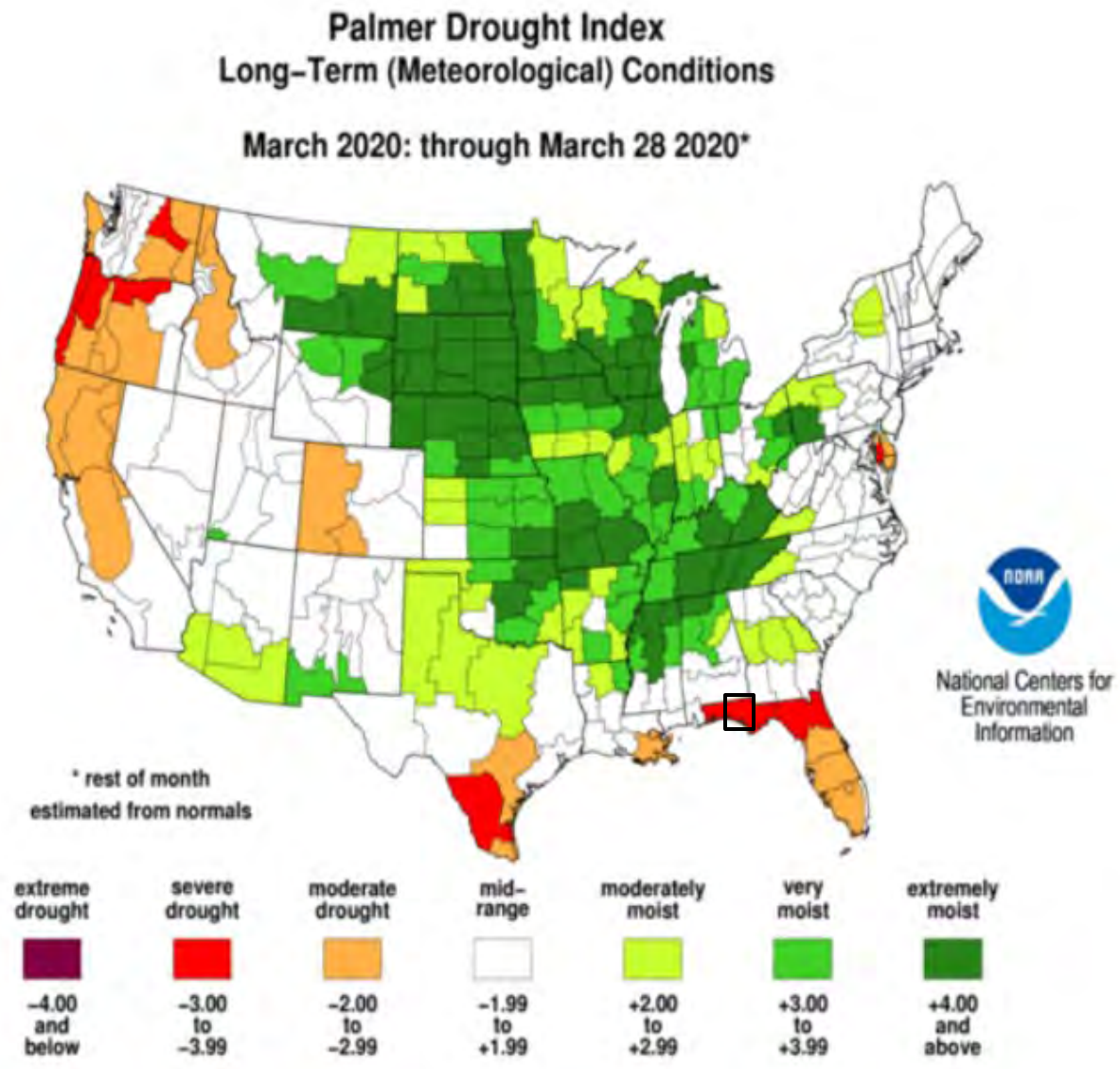


[34] NOAA U.S. Climatological Divisions. https://www.ncdc.noaa.gov/monitoring-references/maps/us-climate-divisions.php

[35] NWS. Heat Index. https://www.weather.gov/safety/heat-index

The Palmer Drought Severity Index (PDSI) is commonly used by drought monitoring agencies for drought reporting. The PDSI is primarily based on soil conditions. Soil with decreased moisture content is the first indicator of an overall moisture deficit. Error! Reference source not found. 3-2 lists the PDSI Drought Index Long-Term Meteorological Conditions. At the one end of the spectrum, 0 is used as normal and drought is indicated by negative numbers. For example, -2 is moderate drought, -3 is severe drought, and -4 is extreme drought. Walton County was in a severe drought in March 2020. The approximate location of Walton County is shown by the black box.

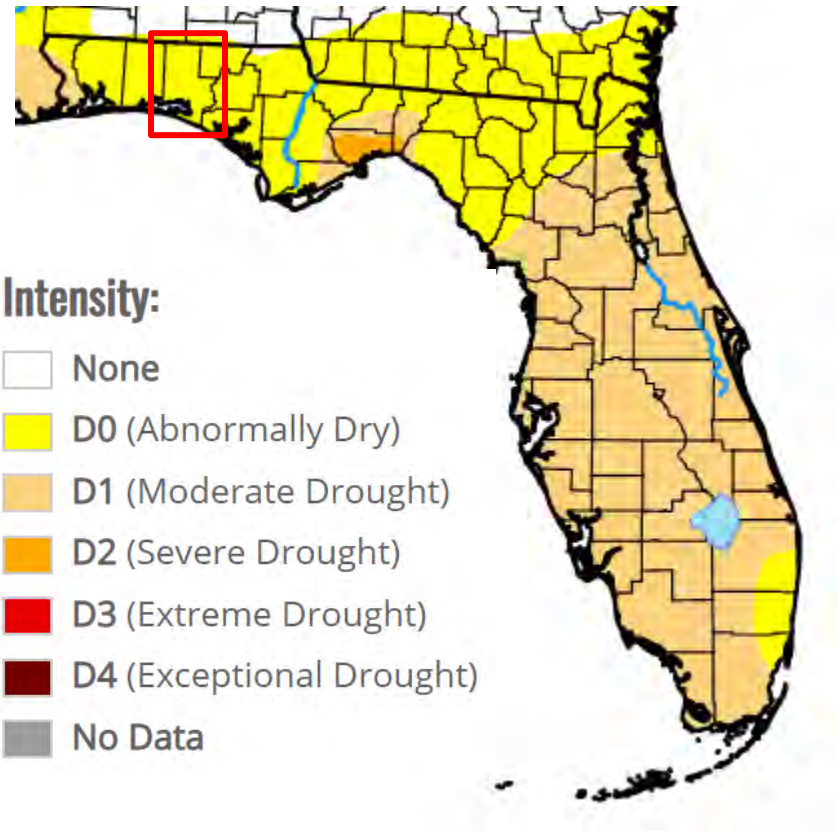
Figure 3-5-4.2. Palmer Drought Index Long-Term Meteorological Conditions in March 2020[36]



[36] Drought Classification. https://droughtmonitor.unl.edu/About/AbouttheData/DroughtClassification.aspx

The United States Drought Monitor provides the possible impacts of drought per state, describing what impacts may be associated with each level of drought. This impact scale coincides with the Drought Monitory Map Intensity Key in Figure 3-3 Drought Monitory Map of Florida on April 2, 2020. See Figure 3-5-4.3 for the possible impacts for the state of Florida. On April 2, 2020, Walton County was experiencing abnormally dry conditions. Walton County is depicted by the red box.

Figure 3-5-4.3. Drought Monitor Map of Florida on April 2, 2020[37]



Note: Walton County is located within the red box.

[37] United States Drought Monitor. https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?Southeast

Figure 3-5-4.4. Drought Impacts per Drought Category for Florida

Category	Impact
D0	Small brush fires increase
	Increased landscape irrigation is needed; voluntary water conservation is requested
D1	Burn bans are possible
	Trees and bushes begin browning
	Water supply decreases
D2	Pasture is drying, hay yields are low
	Large increase of wildfire abundance; fire danger is elevated; burn bans are implemented
	Lawns and landscapes go dormant
	Bears and snakes change food and water habitats
	Air and water quality are poor; water salinity is high; river and lake levels are low
D3	Fire danger is extreme; fire restrictions increase
	Saltwater species replace freshwater species; sea intrusion
	Nesting bird populations grow with increased nesting area; mosquitoes increase
	Fish kills occur; toxic algae blooms appear
	Ground water declines; Lake Okeechobee is extremely low
D4	Ground water declines rapidly
	Large municipalities use alternative water sources, borrow water

The entirety of Walton County is vulnerable to the impacts of drought. Droughts can last a few months to several years. Longer droughts can increase wildfire risk and impact municipal water availability. The severity of a drought may be gauged by the size of the area affected, the duration, and the degree of moisture deficiency. Droughts may result in reduction of electric power generation and water quality deterioration. Drought conditions can also cause soil to compact, decreasing its ability to absorb water, making an area more susceptible to flash flooding and erosion. A drought may also increase the speed at which dead and fallen trees dry out and become more potent fuel sources for wildfires. Drought may also weaken trees in areas already affected by infestations, causing more extensive damage to trees and increasing wildfire risk, at least temporarily.

Risks from exposure to extreme heat include sunburn, heat cramps, heat exhaustion, heat stroke, and death. Extreme heat is also hazardous to livestock, agriculture, and structures such as roads and bridges, and may diminish water and energy supplies, which may increase the risk to human health. The extreme heat hazard is discussed in more detail within Section 7.0 Severe Weather.

Previous Occurrences

Between 1954 and 2019, neither the State of Florida nor Walton County experienced any FEMA declared drought-related disasters (DR) or emergencies (EM).[38]

Agriculture-related drought disasters are quite common. One-half to two-thirds of the counties in the U.S. have been designated as disaster areas in each of the past several years. The USDA Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans to producers suffering losses in those counties and in counties that are contiguous to a designated county. Between 2012 and 2019, Walton County experienced 20 drought events and has been included in ten USDA declarations.

For this 2020 Plan Update, USDA drought disaster events that have impacted Walton County between 2012 and 2019 are identified in Table 3-5-4.1.

Table 3-5-4.1. USDA Disaster Declarations for Walton County 2012-2019[39]

Declaration	Event Date	Declaration Date	Event Description
S4512	October 8, 2019	October 31, 2019	Drought
S4517	October 1, 2019	October 24, 2019	Drought
S4546	October 1, 2019	October 24, 2019	Drought
S4547	June 25, 2019	August 29, 2019	Drought
S4556	June 18, 2019	August 29, 2019	Drought
S4146	December 1, 2016	February 23, 2017	Drought
S4142	November 15, 2016	February 23, 2017	Drought
S4117	November 22, 2016	November 30, 2016	Drought
S3265	January 1, 2012	July 12, 2012	Drought
S3271	January 1, 2012	July 12, 2012	Drought

For events that occurred prior to 2012, see the 2015 Walton County LMS. Please note that not all events that have occurred in the County are included due to the extent of documentation and the fact that not all sources may have been identified or researched. Loss and impact information could vary depending on the source. Therefore, the accuracy of figures discussed is based only on the available information identified during research for this LMS Update.

[38] FEMA Disaster Declarations. www.fema.gov/disasters

[39] USDA Disaster Declarations. https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index

Probability of Future Events

Based upon risk factors for and past occurrences, it is likely that droughts will occur across Florida and Walton County in the future. In addition, as temperatures increase (see climate change impacts), the probability for future droughts will likely increase as well. Therefore, it is likely that droughts will occur in Florida of varied severity in the future.

It is estimated that Walton County will continue to experience direct and indirect impacts of drought and its impacts on occasion, with the secondary effects causing potential disruption or damage to agricultural activities and creating shortages in water supply within communities. Table 3-5-4.2 calculates the probability of future events based on the number of historical events.

Table 3-5-4.2. Probability of Future Drought Events in Walton County

Hazard Type	Number of Occurrences between 1954 and 2019	Rate of Occurrence	Recurrence Interval (in years)	Probability of Event Occurring in Any Given Year	% Chance of Occurring in Any Given Year
Drought	10	0.14	7.00	0.14	14.29%

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined drought to be a medium priority hazard in Walton County. As described in the profile above, drought events within the county are common events with an annual probability greater than 1.0. The probable hazard magnitude for Drought is medium, due to no recorded injuries or deaths, and less than a 24-hour warning time before the event. Table 3-5-4.3 outlines the hazard rankings for each of the hazard priority criteria related to Drought. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-4.3. Drought Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Drought	Medium	Low	Low	High	Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

The entire County is vulnerable to drought. However, areas at particular risk are areas used for agricultural purposes (farms and cropland), open/forested land vulnerable to the wildfire hazard, densely-populated areas where communities rely on surface water supplies (above ground reservoirs) for industrial, commercial, and domestic purposes, and certain areas where elderly, impoverished or otherwise vulnerable populations are located. Vulnerable populations could be particularly susceptible to the drought hazard and cascading impacts due to age, health conditions, and limited ability to mobilize to shelter, cooling and medical resources.

Droughts conditions can cause a shortage of water for human consumption and reduce local fire-fighting capabilities. According to the 2018 Florida Enhanced State Hazard Mitigation Plan, counties most often affected by a drought are densely populated areas that rely on above-ground reservoirs for their water supply. Areas more resistant to drought conditions are less densely populated and rely on groundwater or surface water sources; this includes Walton County.

No structures are anticipated to be directly affected by a drought event. However, droughts contribute to conditions conducive to wildfires and reduce fire-fighting capabilities. Risk to life and property is greatest in those areas where forested areas adjoin urbanized areas (high density residential, commercial and industrial) also known as the wildfire urban interface (WUI). Therefore, all assets in and adjacent to, the WUI zone, including population, structures, critical facilities, lifelines, and businesses are considered vulnerable to wildfire. Refer Section 8.0 for the Wildfire risk assessment.

Water supply facilities may be affected by short supplies of water during a drought event. As mentioned, drought events generally do not impact buildings; however, droughts have the potential to impact agriculture-related facilities and critical facilities that are associated with potable water supplies.

When a drought occurs, the agricultural industry is most at risk in terms of economic impact and damage. During droughts, crops do not mature leading to a lessened crop yield, wildlife and livestock are undernourished, land values decrease, and ultimately there is financial loss to the farmer.[40]

Based on the 2017 Census of Agriculture, there were 598 farms in Walton County, with 89,214 acres of total land in farms. The average farm size was 149 acres. Walton County farms had a total market value of products sold of $5,986 in crop sales and $24,683 in livestock sales), averaging $51,185 per farm. Table 3-5-4.4 shows the acreage of agricultural land exposed to the drought hazard.

Table 3-5-4.4. Agricultural Land in Walton County in 2017[41]

Number of Farms	Land in Farms (acres)	Total Cropland (acres)	Harvested Cropland (acres)	Irrigated Land (acres)
598	89,214	363	(W)	1,180

(W) Withheld to avoid disclosing data of individual farms.

The 2017 Census of Agriculture for Walton County indicated that the top crop items, by acres, in the County are corn for grain (494 acres), and soybeans for beans (284 acres).[42]

A prolonged drought can have a serious economic impact on a community. Increased demand for water and electricity may result in shortages and a higher cost for these resources. Industries that rely on water for business may be impacted the hardest (e.g., landscaping businesses). Even though most businesses will still be operational, they may

[40] National Drought Mitigation Center. http://drought.unl.edu/DroughtBasics/PredictingDrought.aspx

[41] USDA 2017 Census of Agriculture. https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Florida/st12_2_0001_0001.pdf

[42] USDA 2017 Census of Agriculture. https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Florida/st12_2_0001_0001.pdf

be impacted aesthetically. These aesthetic impacts are most significant to the recreation and tourism industry. In addition, droughts in another area could impact the food supply/price of food for residents in the County.

Future growth could impact the amount of potable water available due to a drain on the available water resources. Other areas that could be impacted include agriculture and recreational facilities such as golf courses, farms, and nurseries.

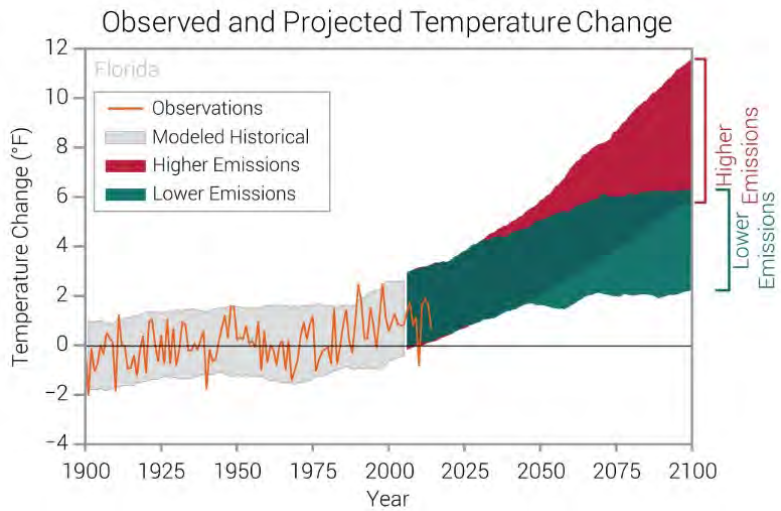
Using historical records, it can be estimated that Walton County will experience at least 0.14 events every year. Damages from these events can be expected in the magnitude of $0 for property and $0 for crop damages annually.

Climate change impacts have the potential to affect the Walton County region. For the drought hazard, potential impacts include more frequent short-term droughts caused by higher summer temperatures and decreased summer rainfall. This could impact drinking water supply, agriculture, and increase the number of forest and brush fires in the County.

According to NOAA's National Centers for Environmental Information (NCEI) State Climate Summary for Florida, historically unprecedented warming is projected by the end of the 21st century. These rising temperatures will likely increase the intensity of naturally occurring droughts due to increases in rate of loss of soil moisture.[43]

The climate of Florida is already changing and will continue to change over the course of this century. Under a higher emissions pathway, historically unprecedented warming is projected by the end of the 21st century. Heat waves are projected to be more intense while cold waves are projected to be less intense. Florida has consistently been above the 1900-2014 mean during the 21st century with the highest 5-year average number occurring during 2010-2014. Figure 3-5 depicts the observed and projected temperature change for Florida from 1900 to 2100.

Figure 3-10. Observed and Projected Temperature Change in Florida[44]



[43] NOAA NCEI State Climate Summary. https://statesummaries.ncics.org/chapter/fl/

[44] NOAA NCEI State Climate Summary. https://statesummaries.ncics.org/chapter/fl/

3.5.5 Coastal Erosion

Description

Erosion is the process of the wearing away of beaches and bluffs along the coastline by large storms, flooding, strong wave action, sea level rise, fluvial currents, and human activities. There are two types of erosion in Florida; coastal and inland. For purposes of this Plan update, inland erosion risk was not assessed because no historical damage values could be identified for losses due to inland erosion within the planning area.

Many natural factors affect erosion of the shoreline, including shore and nearshore morphology, shoreline orientation, and the response of these factors to storm frequency and sea level rise. Coastal shorelines change constantly in response to wind, waves, tides, sea-level fluctuation, seasonal and climatic variations, human alteration, and other factors that influence the movement of sand and material within a shoreline system.

Unsafe tidal conditions, as a result of high winds, heavy surf, erosion, and fog are ordinary coastal hazard phenomena. Some or all of these processes can occur during a coastal storm, resulting in an often-detrimental impact on the surrounding coastline. Factors including: (1) storms such as hurricanes and tropical storms, (2) decreased sediment supplies, and (3) sea-level rise contribute to these coastal hazards.[45]

Coastal erosion can result in significant economic loss through the destruction of buildings, roads, infrastructure, natural resources, and wildlife habitats. Damage often results from an episodic event with the combination of severe storm waves and dune or bluff erosion.

Impacts depend on topography, soils, building types and construction materials. Coastal erosion can affect natural systems, coastal food supplies, tourism industry, and small-town viability. When sea water infiltrates freshwater wetlands, they can die, removing key habitats for animals and a protective buffer for nearby communities

According to the 2020 Preliminary Flood Insurance Study (FIS) for Walton County, the entire coastline of Walton County along the Gulf of Mexico and the Choctawhatchee Bay is vulnerable to coastal erosion.[46]

Location and Extent

While coastal erosion can occur anywhere on the coast in Walton County, below are specific areas within Walton County that are experiencing coastal erosion.

According to the Florida Department of Environmental Protection's *Critically Eroded Beaches in Florida 2019* report (last updated for Walton County in 2014), There are five critically eroded areas (18.8 miles) designated in Walton County (see Figure 4-1). Within these areas, 3.1 miles were added following Congressional authorization of the Walton County Hurricane and Storm Damage Reduction Project.

The western 5.2 miles (R1 – R23.6) is designated critically eroded. A 5.0-mile segment (R1 – R22.8) had erosion that threatened development, recreational areas and the coastal road. This area has a beach restoration project that was

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[45] FL Department of Environmental Protection (FLDEP). Beaches. https://floridadep.gov/rcp/beaches

[46] FEMA Preliminary Flood Insurance Study Report dated March 24, 2020. https://msc.fema.gov/portal/advanceSearch#searchresultsanchor

completed in 2007. An additional 800 feet was added to the east for continuity of management of the coastal system following federal project authorization.

A 4.5-mile critically eroded segment at Dune Allen and Blue Mountain Beach (R41 – R64) threatens development, Fort Panic Road and County Road 30A. The segment between R54.5 – R58 is designated critical for the design integrity of the County's proposed beach restoration project. The east end of this segment, between R63 – R64, is designated critical for the construction of a dune taper for the design integrity of the beach restoration project.

At the center of the County's shoreline, a 1.0-mile segment (R67 – R72) is designated critically eroded. Erosion of a 0.2-mile segment of Gulf Trace (R67.3 – R68.3) and a 0.1-mile segment of Grayton Beach (R70.95 – R71.4) threatens development. An additional 1,900-foot gap between the threatened areas, which contains undeveloped park lands, has been added for continuity of management of the coastal system following federal project authorization. Additionally, two segments (300 feet to the west and 500 feet to the east), where no development exists seaward of the Coastal Construction Control Line (CCCL), has been added for continuity of management of the coastal system following federal project authorization.

A 3.9-mile segment (R78 – R98) is designated critically eroded. Critical erosion along 3.1 miles of Seagrove Beach (R82 – R98) threatens development. Along the western 4,000 feet, the developments of WaterColor, with its development landward the CCCL, and Seaside, with most of its development landward the CCCL, have been added to the Seagrove Beach segment for continuity of management of the coastal system following federal project authorization.

The eastern 4.2 miles of Walton County (R105.5 – R127.4) is designated critically eroded. Along Seacrest Beach is a 1.8-mile segment (R105.5 – R114.7) where development is threatened by erosion of the bluff. To the east at Inlet Beach, a 1.0-mile segment (R122 – R127) was previously designated critically eroded. The portion between R122 – R124 was designated critical. The portion between R124 – R127 was designated critical for the design integrity of the beach restoration project.

Between R114.7 – R122 is a 1.4-mile gap between threatened areas where nearly all of the development is completely landward of the CCCL. This area, along with a 400-foot segment at the east end where there is currently no development seaward of the CCCL, were added for continuity of management of the coastal system following federal project authorization.[47] Table 3-5-5.1 and Figure 3-5-5.1 below provide the locations of the critically eroded beaches in Walton County according to FLDEP's *Critically Eroded Beaches in Florida 2019* report.

Table 3-5-5.1. Locations of Critically Eroded Beach in Walton County as of June 2019[48]

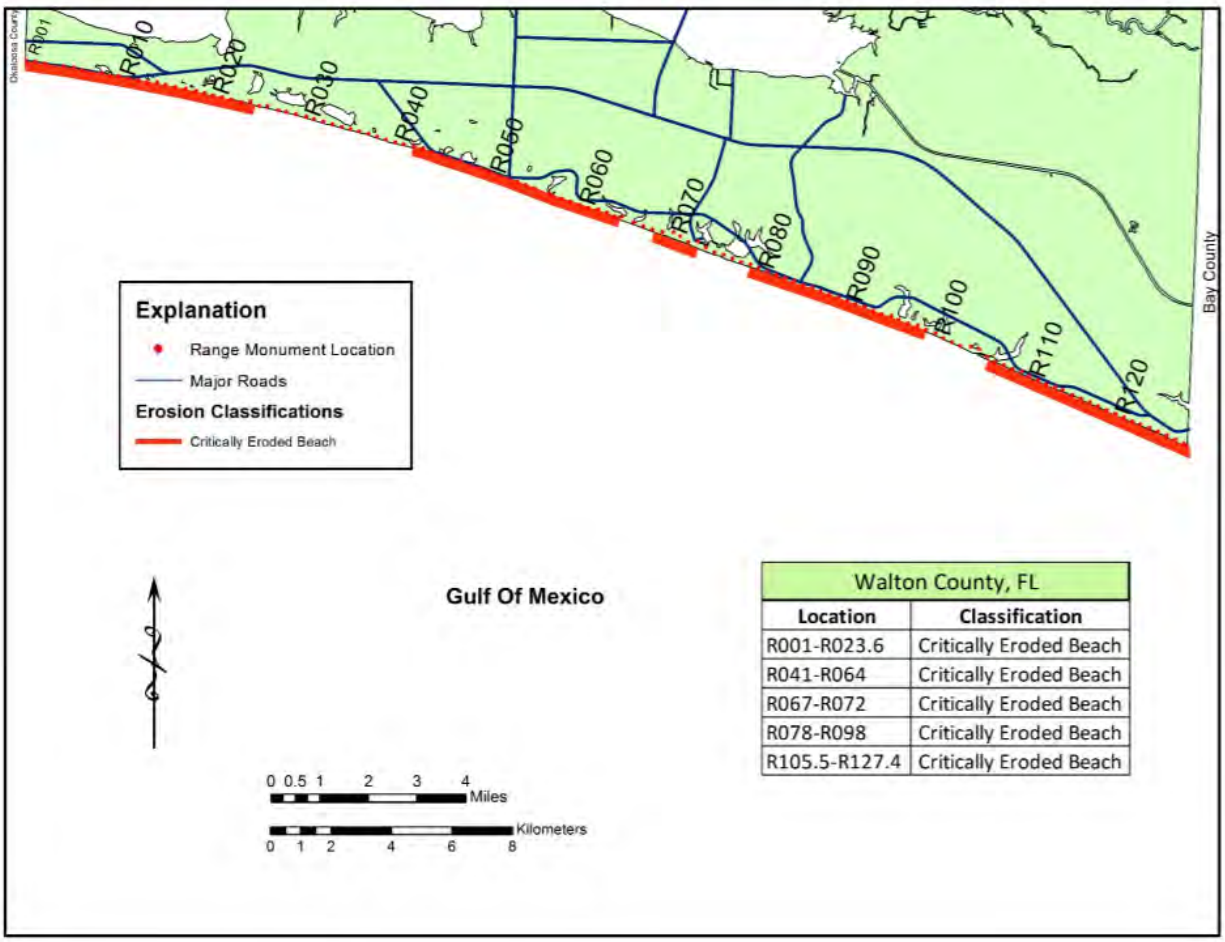
Eroding Shoreline Location by R-monument or Inlet Name	Erosion Condition	Critically Eroded Beach (miles)	Non-Critically Eroded Beach (miles)	Critically Eroded Inlet (miles)	Non-Critically Eroded Inlet (miles)
R1 – R23.6	Critical	5.2	0	0	0

[47] FL Department of Environmental Protection (FLDEP). Critically Eroded Beaches in Florida. https://floridadep.gov/sites/default/files/FDEP-Critically-Eroded-Beaches-2019.pdf

[48] FL Department of Environmental Protection (FLDEP). Critically Eroded Beaches in Florida. https://floridadep.gov/sites/default/files/FDEP-Critically-Eroded-Beaches-2019.pdf

Eroding Shoreline Location by R-monument or Inlet Name	Erosion Condition	Critically Eroded Beach (miles)	Non-Critically Eroded Beach (miles)	Critically Eroded Inlet (miles)	Non-Critically Eroded Inlet (miles)
R41 – R64	Critical	4.5	0	0	0
R67 - $72	Critical	1.0	0	0	0
R78 – R98	Critical	3.9	0	0	0
R105.5 – R127.4	Critical	4.2	0	0	0
TOTAL	Critical	18.8	0	0	0

Figure 3-5-5.1. Critically Eroded Beaches in Walton County[49]



All of these critically eroded beaches are at risk of further coastal erosion. Significant storm events could cause tens of millions of dollars in damages to these areas of Walton County.

[49] FL Department of Environmental Protection (FLDEP). Critically Eroded Beaches in Florida. https://floridadep.gov/sites/default/files/FDEP-Critically-Eroded-Beaches-2019.pdf

Previous Occurrences

As of this Plan update, Walton County has not had a presidentially declared disaster for the coastal erosion hazard. According to the NOAA NCEI Storm Events Database, there are six coastal erosion events summarized below in Table 3-5-5.2 that occurred between January of 1954 and January 2020 in Walton County.

Table 3-5-5.2. Coastal Erosion Events in Walton County 1954 to January 2020[50]

Event Type	Date(s) of Event	Details
Hurricane Michael	October 10, 2018	Hurricane Michael, a high category 4 storm, caused catastrophic damage from wind and storm surge. In addition, wave action caused higher total water values resulting in waves destroying multiple buildings.
Hurricane Dennis	July 9, 2005 – July 10, 2005	Maximum coastal storm surge heights ranged from 4 to 8 feet in Walton County. Moderate to severe beach erosion was observed along the beaches as well. Across coastal Walton County, all public dunes and walkovers were damaged.
Tropical Storm Cindy	July 5, 2005	The Walton County EMA reported minor beach erosion due to moderate wave action.
Hurricane Ivan	September 15, 2004	Beach erosion varied from 20 to 40 feet in Walton County due to Hurricane Ivan.
Tropical Storm Hanna	September 14, 2002	Tropical Storm Hanna brought minor flooding and beach erosion along the Florida Panhandle coast, including Walton County, where storm surge heights ranged from two to four feet.
Tropical Storm Barry	August 4, 2001 – August 6, 2001	Tropical Storm Barry made landfall between Panama City and Destin. Maximum storm tides ranged from a foot in coastal Franklin County, to three feet in coastal Walton County where minor beach erosion was reported.
Tropical Storm Helene	September 21, 2000	Tropical Storm Helene made landfall near Fort Walton Beach. Coastal storm tides of two feet or less above astronomical tide levels were common, with only minor beach erosion reported.

Probability of Future Events

Coastal erosion is an ongoing natural process. Therefore, the probability of occurrence is high, with nearly one event expected annually. Wind and flooding events caused by coastal storms increase the magnitude of erosion.

Long-term coastal erosion is a continuous and dynamic process, impacting the coastal communities in Walton County. It is anticipated that coastal erosion will continue due to the predicted increase in sea level rise and storm frequency and intensity. In Florida, coastal erosion will continue to be an on-going problem along many areas of coastline. It is difficult to assign a probability to the near constant small, on-going erosion that may occur over a continuous period of

[50] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

time. However, a probability can be assigned to larger storm events such as hurricanes and tropical storms, which can result in significant, rapid coastal erosion. The probability of coastal erosion will be about the same in the future, with year-to-year variations.

For Walton County, impacts will vary from place to place along the surge-impacted areas of the county. As temperatures increase, the probability for future events will likely increase as well. It is estimated that Walton County will continue to experience direct and indirect impacts of coastal erosion on occasion.

According to the NOAA National Centers for Environmental Information (NCEI) database, Walton County experienced six coastal erosion events between 1954 and January 2020. Table 3-5-5.3 below shows these statistics, as well as the annual average number of events and the percent chance of the coastal erosion hazard occurring in Walton County in future years based on the historic record.

Table 3-5-5.3. Probability of Future Occurrence of Coastal Erosion Events[51]

Hazard Type	Number of Occurrences Between 1954 and January 2020	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Coastal Erosion	6	0.09	11.67	0.09	8.57%

Vulnerability and Risk Assessment

Hazard Ranking

As described in the profile above, coastal erosion events within the county are common events with an annual probability greater than 1.0. Coastal erosion events have a low range of impact, accounting for less than $50,000 in annual damages. The probable hazard magnitude for coastal erosion is medium, including no deaths or injuries recorded, and more than three days warning time before the event. Table 3-5-5.4 below outlines the hazard rankings for each of the hazard priority criteria related to coastal erosion. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-5.4. Coastal Erosion Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Coastal Erosion	High	Low	Low	Low	Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

[51] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

The primary concerns regarding coastal erosion relate to the economic impacts that result when property and infrastructure close to the eroding coasts lose their natural protection from the water and waves or are affected by destabilization of the land upon which they were constructed. Environmental impacts from erosion include the loss of animal habitats and esthetic losses. Fishing industries that depend on coastal habitats can suffer losses from changes caused by coastal erosion. A loss of tourism can result in similar economic impacts.

Walton County's beaches are its number one economic and environmental asset. Continued erosion will have a variety of impacts on the county including a decrease in the tax base, public access, recreational opportunities, economic value, land value and damage to public infrastructure. Private property could be damaged by increased flooding and private land could be completely lost to the ocean.

Impacts on the public and the environment will likely be due to lost private and public property, lost public and private beach front, lost sand dunes or mangroves, leading to storm surge flooding. There is no anticipated impact to first responders.

Impact to operations includes businesses, critical infrastructure and any government buildings located near the shoreline. Operations may be impacted if roadways are damaged due to erosion.

3.5.6 Flood

Description

A flood is the inundation of normally dry land resulting from the rising and overflowing of a body of water. They can develop slowly over a period of days or develop quickly, with disastrous effects that can be local (impacting a neighborhood or community) or regional (affecting entire river basins, coastlines, multiple counties, or states).[52] Floods are frequent and costly natural hazards in Florida in terms of human hardship and economic loss, particularly to communities that lie within flood-prone areas or floodplains of a major water source.

Flooding in Walton County is primarily attributed to riverine (inland) and coastal (tidal/surge) flooding from the Choctawhatchee River, Alaqua Creek and the Gulf of Mexico.[53] For purposes of this LMS Update, the Flood hazard profile will include tsunami flooding, storm surge flooding, areal and riverine flooding.

Tsunami Flooding

A tsunami is a series of high-energy waves that radiate outward like pond ripples from an area where a generating event occurs, arriving at shorelines over an extended period. Tsunamis can be induced by earthquakes, landslides and submarine volcanic explosions. Tsunamis are typically classified as local or distant, depending on the location of their source in comparison to where waves occur:

- The waves nearest to the generating source represent a local tsunami. Such events have minimal warning time, leaving few options except to run to high ground. The damage from the tsunami itself may be accompanied by additional damage from the triggering earthquake due to ground shaking, surface faulting, liquefaction or landslides.
- The waves far from the generating source represent a distant tsunami. Distant tsunamis may travel for hours before striking a coastline, giving a community a chance to implement evacuation plans.[54]

The risk from this hazard is low-to-negligible, mainly because of the lack of historical occurrence in the planning area. However, this hazard profile is provided in order to address the possibility of a future event in the planning area. This positions the planning partnership for benefit eligibility should an event of this type occur during the performance period of this plan.[55]

Storm Surge Flooding

Storm surge and large waves produced by coastal storms pose the greatest threat to life and property along the coast. Storm surge is defined as the abnormal rise of water generated by a storm's winds, over and above the predicted

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[52] FEMA Floodplain Management Principles and Current Practices. https://training.fema.gov/hiedu/aemrc/courses/coursetreat/fm.aspx

[53] FEMA Flood Map Service Center. Walton County 2020 Preliminary Flood Insurance Study (FIS). file:///C:/Users/melissa.schloss/Documents/Downloads/12131CV000B%20(1).pdf

[54] NWS. Tsunami Safety. https://www.weather.gov/safety/tsunami

[55] National Tsunami Hazard Mitigation Program. https://nws.weather.gov/nthmp/statesandterritories.html

astronomical tides. It can reach heights well over 20 feet and span hundreds of miles of coastline.[56] Storm surge is produced by water being pushed toward the shore by the force of winds moving cyclonically around the storm. The impact on surge of the low pressure associated with intense storms is minimal in comparison to the water that is being forced toward the shore by the wind.[57] Storm surge is modeled based on characteristics of actual storms responsible for significant coastal flooding.[58]

Areal and Riverine (Inland) Flooding

A floodplain is defined as the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that becomes inundated with water during a flood. In Walton County, floodplains line the rivers and streams of the County and the coastal areas.[59]

Areal flooding typically occurs when prolonged rain falls over several days, when intense rain falls over a short period of time or a debris jam causes a river or stream to overflow onto the surrounding area. Areal flooding can also occur as a result from the failure of a water control structure, such as a dam or levee.

Riverine flooding occurs when river levels rise and overflow their banks or the edges of their main channel and inundate areas that are normally dry. Riverine flooding can be caused by heavy rainfall, dam failures or a storm.[60]

Walton County is a diverse county with areas ranging from urban to rural and coastal to inland. While all Walton County residents are vulnerable to the hazards identified in this Risk Assessment to some degree, geographic location and other factors contribute to the extent of their vulnerability and disaster impacts.

Location and Extent

Tsunami Flooding

The entire coastline of Walton County is vulnerable to tsunami flooding, should the event occur. NOAA created a Coastal Flood Exposure Mapper which provides communities their exposure potential to high tide flooding, tsunami flooding, storm surge and sea level rise. This web-based tool supports communities by assessing their risks to multiple coastal flooding hazards. The mapping tool shows the people, places and natural resources exposed to these flooding events. Currently, this mapping tool has not mapped tsunami hazard areas for Walton County.[61]

In 2015 the Texas A&M University at Galveston Tsunami Research Group developed a 3D numerical model for what could happen after a submarine landslide-type of tsunami occurred in the Gulf of Mexico. The 3D model is combined with a 2D model to depict how a tsunami could affect coastal areas of the Gulf of Mexico (see Figure 3-5-6.1). The study provided modeling for South Padre Island, TX; Galveston, TX; Mobile, AL; Panama City, FL and Tampa, FL. The

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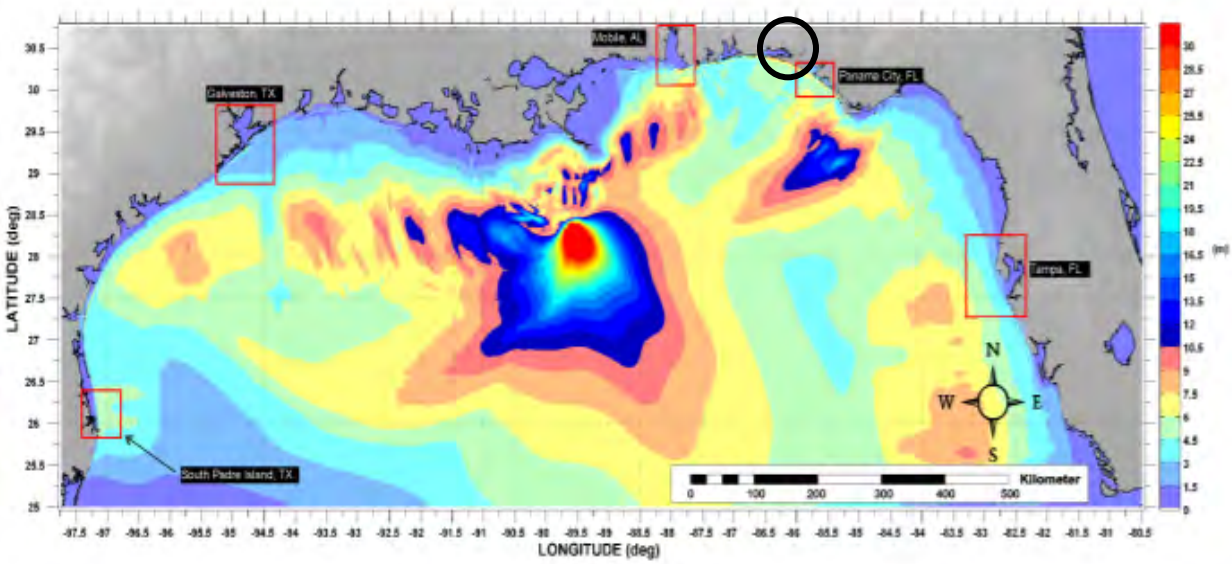
[56] National Hurricane Center (NHC). Hurricane Preparedness. https://www.nhc.noaa.gov/prepare/hazards.php
[57] NHC. Storm Surge Overview. https://www.nhc.noaa.gov/surge/
[58] FEMA Flood Map Service Center. Walton County 2020 Preliminary Flood Insurance Study (FIS). https://msc.fema.gov/portal/advanceSearch
[59] FEMA Flood Map Service Center. Walton County 2020 Preliminary Flood Insurance Study (FIS). https://msc.fema.gov/portal/advanceSearch
[60] NWS. Flood Related Hazards. https://www.weather.gov/safety/flood-hazards
[61] NOAA Coastal Flood Exposure Mapper. https://coast.noaa.gov/floodexposure/#-9596339,3573252,10z/eyJiIjoic3RyZWV0IiwiaCI6InRzdW5hbWl8MXwifQ==

Panama City study area map indicates maximum tsunami inundation depth to be anywhere from 6.3 to 0.3 meters, or 20.6 to 0.9 feet. There is currently no extent or location mapping of the tsunami hazard specifically for Walton County coastline.

Figure 3-5-6.1 provides the modeled tsunami flooding inundation for the entire Gulf of Mexico. The approximate location of Walton County is located within the black circle. According to this 2015 study, the approximate tsunami inundation for the Walton County coastline is 6 to 7.5 meters, or 19.6 to 24.6 feet.[62]

Figure 3-5-6.1. Texas A&M Galveston Tsunami Model Simulation for the Gulf of Mexico[63]



Note: The approximate location of Walton County is located within the black circle.

Storm Surge Flooding

The entire coastline of Walton County is vulnerable to storm surge flooding. The extent of storm surge flooding due to coastal storms (hurricanes, tropical storms) is determined by three factors:

- the nature of the storm with respect to intensity, duration, and path;
- astronomical tide conditions at the time the storm surge wave reaches the shore; and
- the physical geometry and bathymetry of a particular area, which affects the time and passage of the surge wave.

Similar to riverine flooding, the NWS will issue watches and warnings for minor, moderate, and major coastal flooding.

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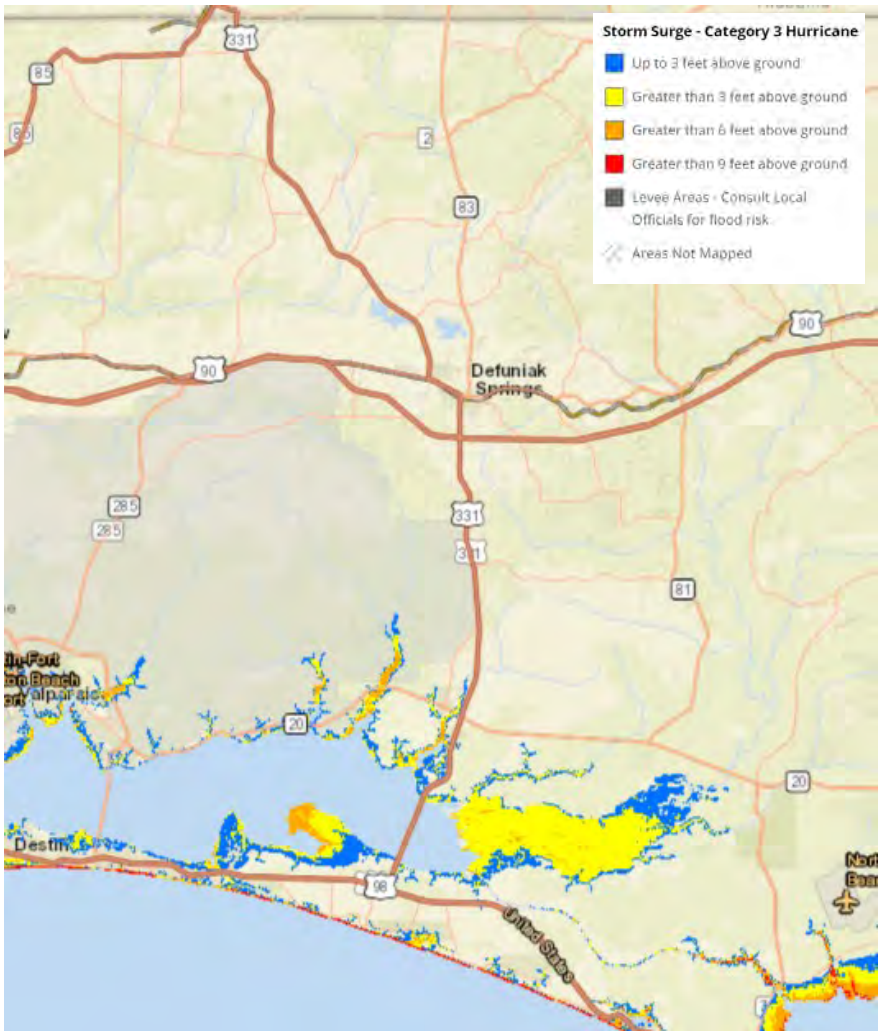
[62] Texas A&M University at Galveston. Tsunami Hazard and Inundation Modeling and Assessment for the U.S. Gulf Coast. 2015. http://www.waveworkshop.org/14thWaves/Presentations/Z1_AlyssaManis-WaveWorkshopPresentation-Nov2015.pdf

[63] Texas A&M University at Galveston. Tsunami Hazard and Inundation Modeling and Assessment for the U.S. Gulf Coast. 2015. http://www.waveworkshop.org/14thWaves/Presentations/Z1_AlyssaManis-WaveWorkshopPresentation-Nov2015.pdf

FEMA Flood Insurance Rate Maps (FIRMs) delineate the areas in Walton County that are in the Special Flood Hazard Area where there is a 1% annual change of flooding. The SFHA Zones subject to inundation by the 1% annual chance flood include Zones A, AE, AH, AO, AR, A99, V and VE. Zones V and VE areas subject to coastal velocity wave action from storm waves. FIRMs also delineate the area that has a 0.2-percent-annual-chance of as Zone X. Areas likely to have shallow, seasonal ponding are labeled Zone AH.[64]

Figure 3-5-6.2 summarizes the Walton County coastal flood exposure output provided by the NOAA Coastal Flood Exposure Mapper. This web-based tool supports communities by assessing their risks to multiple coastal flooding hazards. The mapping tool shows the people, places and natural resources exposed to coastal flooding events. The below map provides possible storm surge inundation of three to six feet or more during a Category 3 hurricane scenario.

Figure 3-5-6.2. Walton County Coastal Flood Exposure during a Cat 3 Hurricane[65]



[64] FEMA Flood Map Service Center. Walton County 2020 Preliminary Flood Insurance Study (FIS). https://msc.fema.gov/portal/advanceSearch

[65] NOAA Coastal Flood Exposure Mapper. https://coast.noaa.gov/floodexposure/#-9589307,3591368,10z/eyJiIjoic3RyZWV0In0=

Areal and Riverine Flooding

The frequency and severity of riverine flooding are measured using a discharge probability, which is the probability that a certain river discharge (flow) level will be equaled or exceeded in a given year. Flood studies use historical records to determine the probability of occurrence for the different discharge levels.

Floodplains often are referred to as 100-year floodplains. A 100-year floodplain is not a flood that will occur once every 100 years; the designation indicates a flood that has a 1-percent chance of being equaled or exceeded each year. Thus, the 100-year flood could occur more than once in a relatively short period of time. Due to this misleading term, FEMA has defined it properly as the 1-percent annual chance flood. Similarly, the 500-year floodplain will not occur every 500 years but is an event with a 0.2-percent chance of being equaled or exceeded each year. The "1-percent annual chance flood" is now the standard term used by most federal and state agencies and by the National Flood Insurance Program (NFIP).[66] The 1-percent annual chance floodplain establishes the area that has flood insurance and floodplain management requirements and is referenced as the regulatory floodplain.

In the case of riverine flood hazard, once a river reaches flood stage, the flood extent or severity categories used by the NWS include minor flooding, moderate flooding, and major flooding. Each category has a definition based on property damage and public threat:

- *Minor Flooding* - minimal or no property damage but possibly some public threat or inconvenience.
- *Moderate Flooding* - some inundation of structures and roads near streams, some evacuation of people or transfer of property to higher elevations is necessary.
- *Major Flooding* - extensive inundation of structures and roads, significant evacuation of people or transfer of property to higher elevations.[67]

The severity of a flood depends not only on the amount of water that accumulates in a period, but also on the land's ability to manage this water. The size of rivers and streams in an area and infiltration rates are significant factors. When it rains, soil acts as a sponge. When the land is saturated or frozen, infiltration rates decrease and any more water that accumulates must flow as runoff.[68]

NWS uses river gages to determine the severity of flood at different points along a body of water. There are four gages in Walton County. Their locations are along the Shoal River, Alaqua Creek, Bruce Creek and Choctawhatchee River. The County relies on the gages to determine the height of the rivers during heavy rain events and to determine whether or not residents need to evacuate. Table shows the gages with their determined flood stage and their record flood event. Figure 3-5-6.3 shows the flood hydrographs for the gages.

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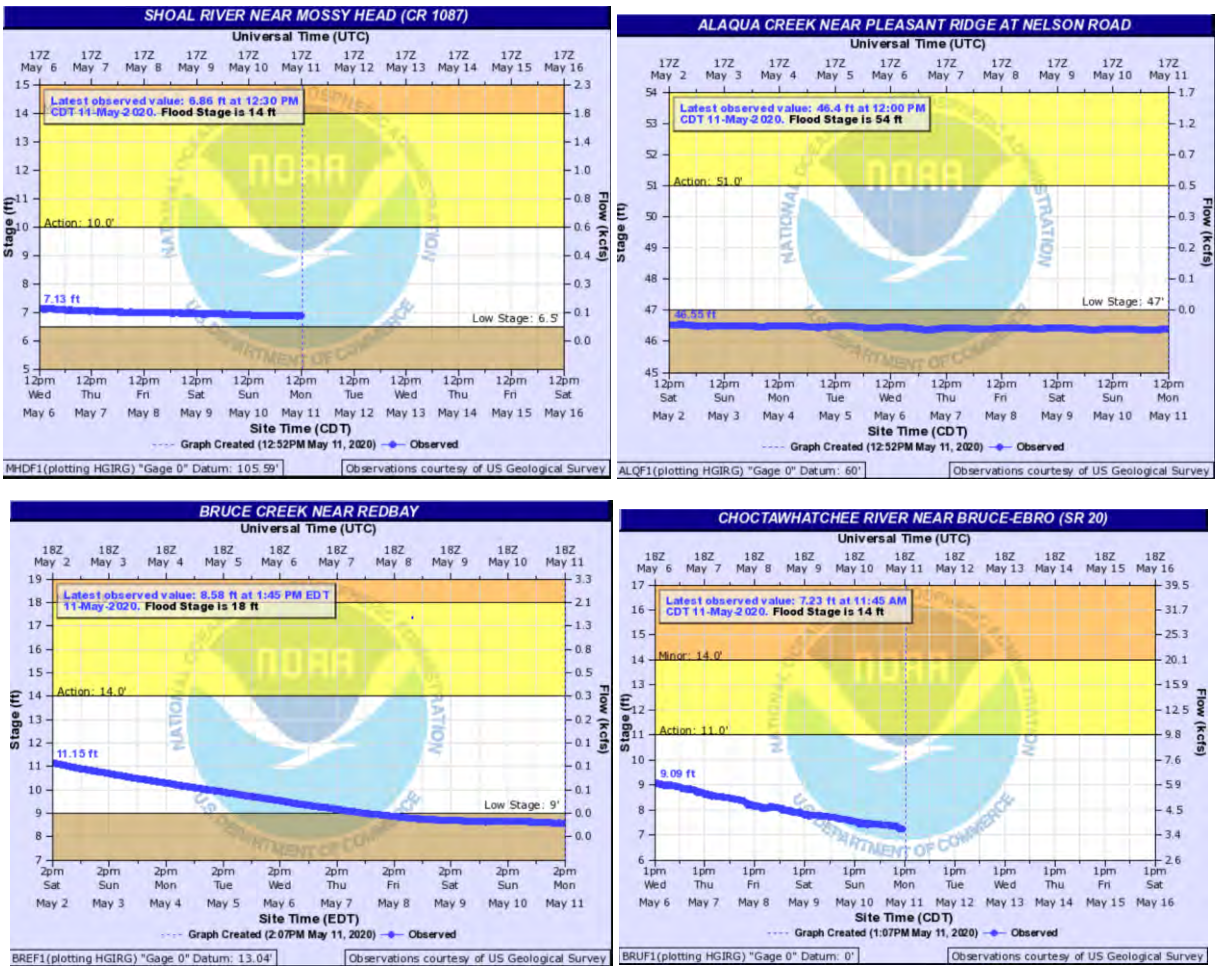
[66] FEMA Flood Insurance Study (FIS) Tutorial. https://www.fema.gov/media-library-data/20130726-1550-20490-1795/ot_fis.pdf
[67] NWS. Floods and Flash Floods. https://www.weather.gov/ffc/floods
[68] How Stuff Works. How Floods Work. http://science.howstuffworks.com/flood.htm

Table 3-5-6.1. River Gage Statistics for Walton County[69]

Gage Site Number	Site Name	Action Stage (feet)	Minor Flood Stage (feet)	Moderate Flood Stage (feet)	Major Flood Stage (feet)	Record Flood
MHDF1	Shoal River near Mossy Head (CR 1087)	10.0’	14.0’	16.0’	24.0’	24.73 ft on 06/09/1989
ALQF1	Alaqua Creek Near Pleasant Ridge at Nelson Road	51.0’	54.0’	58.0’	61.0’	59.57 ft on 09/29/2015
BREF1	Bruce Creek Near Redbay	14.0’	18.0’	25.0’	N/A	22.45 ft on 09/15/2004
BRUF1	Choctawhatchee River Near Bruce-Ebro (SR 20)	11.0’	14.0’	17.0’	20.0’	29.19 ft on 03/15/1929

Note: N/A indicates the information was not provided on the NWS website.

Figure 3-5-6.3. Flood Hydrographs for the River Gages in Walton County



[69] NWS. Advanced Hydrologic Prediction Service. https://water.weather.gov/ahps2/index.php?wfo=tae

Previous Occurrences

Between 1954 and 2019, FEMA declared that the State of Florida experienced 865 flood-related disasters (DR) or emergencies (EM) classified as one or a combination of the following disaster types: hurricane, tropical storm, severe storms, flooding, inland and coastal flooding, coastal storm, high tides, heavy rain, and severe storms. Generally, these disasters cover a wide region of the state; therefore, they might have impacted many counties. Walton County was included in 25 of these flood-related declarations. Table 3-5-6.2 lists these events.

Table 3-5-6.2. Flood-Related (DR) and Emergency (EM) Declarations in Walton County 1954 to 2019[70]

Declaration	Event Date	Declaration Date	Event Description
EM-3419	August 20, 2019 – September 9, 2019	August 30, 2019	Hurricane Dorian
EM-3405	October 7, 2018 – October 19, 2018	October 9, 2018	Hurricane Michael
DR-4399	October 7, 2018 – October 19, 2018	October 11, 2018	Hurricane Michael
EM-3385	September 4, 2017 – October 18, 2017	September 5, 2017	Hurricane Irma
DR-4337	September 4, 2017 – October 18, 2017	September 10, 2017	Hurricane Irma
DR-4177	April 28, 2014 – May 6, 2014	May 6, 2014	Severe Storms, Tornadoes, Straight-Line Winds, and Flooding
DR-4138	July 2, 2013 – July 7, 2013	August 2, 2013	Severe Storms and Flooding
DR-1831	March 26, 2009 – May 5, 2009	April 21, 2009	Severe Storms, Flooding, Tornadoes, And Straight-Line Winds
EM-3288	August 18, 2008 – September 12, 2008	August 21, 2008	Tropical Storm Fay
DR-1602	August 24, 2005 – September 6, 2005	August 28, 2005	Hurricane Katrina
DR-1595	July 7, 2005 – July 20, 2005	July 10, 2005	Hurricane Dennis
DR-1551	September 13, 2004 – November 17, 2004	September 16, 2004	Hurricane Ivan
DR-1545	September 3, 2004 – October 8, 2004	September 4, 2004	Hurricane Frances
DR-1539	August 11, 2004 – August 30, 2004	August 13, 2004	Tropical Storm Bonnie
DR-1249	September 25, 1998 - October 7, 1998	September 28, 1998	Hurricane Georges
EM-3131	September 25, 1998 - October 2, 1998	September 28, 1998	Hurricane Georges
DR-1195	December 25, 1997 – April 24, 1998	January 6, 1998	Severe Storms, High Winds, Tornadoes, And Flooding
DR-1069	October 4, 1995 – October 11, 1995	October 4, 1995	Hurricane Opal
DR-1062	August 2, 1995 – August 3, 1995	August 10, 1995	Hurricane Erin
DR-1035	July 2, 1994 – July 29, 1994	July 10, 1994	Severe Storms and Flooding (Tropical Storm Alberto)
EM-3114	July 2, 1994 – July 29, 1994	July 8, 1994	Tropical Storm Alberto
DR-862	March 16, 1990 – April 9, 1990	April 3, 1990	Severe Storms and Flooding
DR-600	September 13, 1979	September 13, 1979	Hurricane Frederic
DR-484	September 26, 1975	September 26, 1975	High Winds, Heavy Rains & Flooding

[70] FEMA. Disaster Declarations Summaries. https://www.fema.gov/openfema-dataset-disaster-declarations-summaries-v1

Declaration	Event Date	Declaration Date	Event Description
DR-479	August 22, 1975	August 22, 1975	Flooding

The Secretary of Agriculture from the U.S. Department of Agriculture (USDA) is authorized to designate counties as disaster areas to make emergency loans to producers suffering losses in those counties and in counties that are contiguous to a designated county. Between 2012 and April 2020, Walton County was included in seven USDA declarations involving flooding. See below Table 3-5-6.3 for a summary of these USDA declarations for Walton County.

Table 3-5-6.3. Flood-related USDA Disaster Declarations 2012-April 2020 for Walton County[71]

Declaration	Event Date	Declaration Date	Event Description
S4461	October 10, 2018	March 20, 2019	Hurricane Michael
S4437	October 10, 2018 – October 11, 2018	November 15, 2018	Excessive Wind, Rain, Flooding Due to Hurricane Michael
S4273	September 9, 2017 – September 12, 2017	January 2, 2018	Hurricane Irma
S3939	September 1, 2015 – November 20, 2015	December 9, 2015	Excessive Rain, Wind, Flooding
S3586	January 1, 2013 – Continuing	September 18, 2013	Excessive Rain, Flooding
S3571	June 4, 2013 – August 1, 2013	August 21, 2013	Excessive Rain, Flooding
S3502	February 4, 2013 – March 4, 2013	April 3, 2013	Frost, Excessive Rain, Flooding, Flash Flooding, High Winds

The USDA crop loss data provide another indicator of the severity of previous events. Additionally, crop losses can have a significant impact on the economy by reducing produce sales and purchases. Such impacts may have long-term consequences, particularly if crop yields are low the following years as well. Between 2015 and 2019, Walton County did not report any crop losses due to flooding.

The National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI) Storm Events database records and defines flood events as follows:

- *Coastal Flood* is reported in the NOAA-NCEI database for flooding of coastal areas due to the vertical rise above normal water level caused by strong, persistent onshore wind, high astronomical tide, and/or low atmospheric pressure, resulting in damage, erosion, flooding, fatalities, or injuries. Coastal areas are defined as those portions of coastal land zones (coastal county/parish) adjacent to the waters, bays, and estuaries of the oceans.
- *Flash Flood* is reported in the NOAA-NCEI database for a life-threatening, rapid rise of water into a normally dry area beginning within minutes to multiple hours of the causative event (e.g., intense rainfall, dam failure, ice jam).

[71] USDA Disaster Designation Information. https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index

- *Flood* is reported in the NOAA-NCEI database for any high flow, overflow, or inundation by water which causes damage. In general, this would mean the inundation of a normally dry area caused by an increased water level in an established watercourse or ponding of water that poses a threat to life or property.

Flood events that have impacted Walton County between 2015 and 2019 are identified in Table . For events prior to 2015, refer to Walton County's 2015 Local Mitigation Strategy. The Appendices provide more detailed information regarding impacts and losses specifically to each jurisdiction.

Table 3-5-6.4. Flood Events Impacting Walton County 2015 to 2019[72]

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses/Impacts
May 28, 2018	Flash Flood	N/A	N/A	Subtropical Storm Alberto brought widespread damage and flooding including: a tree fell and knocked down power lines across the road at 186 Fine Hill Dr in DeFuniak Springs. Trees were blown down at Spence Dr and Highway 81, at Oak Grove Road and County Road 181E, and at South Jackson Street. Flooding was reported in Santa Rosa Beach near the intersection of County Highway 395 and East Point Washington Road and along Flounder Street and Dolphin Way. Inlet Beach Park beach access road flooded on Lakeshore Drive.
February 11, 2018	Flood	N/A	N/A	The storms brought rainfall amounts of 8 to 10 inches with localized areas receiving more than 10 inches across coastal Walton County. The highest observed rainfall total was in Walton County, where a 48-hour rainfall total of 11.45 inches was recorded.
October 22, 2017 – October 23, 2017	Flash Flood	N/A	N/A	Rainfall amounts in Walton county reached 4-8 inches in spots in around 6 hours-time with a few road intersections flooded. The highest measured rainfall amount was 8.15 inches in the far western portion of the county.
June 22, 2017	Flood	N/A	N/A	Rain bands from Tropical Storm Cindy affected portions of the Florida panhandle with heavy rainfall and localized flooding. A beach access road was washed out and several roads were closed due to the flooding.
January 1, 2017 – January 2, 2017	Flood	N/A	N/A	Two-day rainfall totals in excess of 8 inches across the County. The storm floods caused 1 fatality in Walton County.
April 2, 2016	Flood	N/A	N/A	Persistent, moderate to heavy rainfall brought flooding to the area. A small earthen dam experienced a complete failure causing a dam breach and washed out County Hwy 3280.

[72] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Losses/Impacts
November 8, 2015	Flood	N/A	N/A	A low-pressure system brought excessive rainfall to the Walton County area causing many flooded road closures.
November 2, 2015	Flash Flood	N/A	N/A	A large cold front produced over 6 inches of rain in many areas across Walton County and washed out several roads causing $10,000 worth of property damage.
November 1, 2015	Flood	N/A	N/A	A large cold front produced over 6 inches of rain in many areas across Walton County.
September 28, 2015	Flash Flood	N/A	N/A	Very heavy rainfall brought 1-4 feet of flash flooding across Walton County causing $25,000 worth of property damage.

Table 3-5-6.5 documents historical flooding events from 1954 to December 2019 in Walton County including fatalities, injuries, property and crop damage estimates based on data collected from the NOAA NCEI database.

Table 3-5-6.5. Flood Events in Walton County 1954 to 2019[73]

Hazard Type	Number of Occurrences Between 1950 and 2019	Total Fatalities	Total Injuries	Total Property Damage ($)	Total Crop Damage ($)
Coastal Flood	2	0	0	$0	$0
Flood*	50	1	1	$154.146 M	$0
Storm Surge	9	0	0	$83.048 M	$0
Tsunami Flood	0	0	0	$0	$0
TOTAL	61	1	1	$237.194 M	$0

*Note: * indicates flooding events from hurricanes, tropical storms, tropical depressions, riverine and flash flooding events.*

Probability of Future Events

Walton County is expected to continue experiencing direct and indirect impacts of flooding in the future. As the climate continues to change, population and development increases this continues to be a concern for Walton County.

Error! Reference source not found.6 summarizes data regarding the probability of occurrences of flood events in Walton County based on the historic record. The information used to calculate the probability of occurrences is based solely on NOAA-NCEI storm events database results.

[73] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

Table 3-5-6.6. Probability of Future Occurrence of Flooding Events[74]

Flood Hazard Type	Number of Occurrences Between 1950 and 2019	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Coastal Flood	2	0.03	35.00	0.03	2.86%
Flood*	50	0.72	1.40	0.71	71.43%
Storm Surge	9	0.13	7.78	0.13	12.86%
Tsunami Flood	0	0.03	35.00	0.03	2.86%
TOTAL	61	0.88	1.15	0.87	100%

*Note: * indicates flooding events from hurricanes, tropical storms, tropical depressions, riverine and flash flooding events.*

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined flooding to be a high priority hazard in Walton County. As described in the profile above, flooding events within the county are common events with an annual probability greater than 1.0. Flooding events have a high range of impact, accounting for annual damages that exceed $150,000. The probable hazard magnitude for Flooding is high, including several recorded injuries and deaths, and less than a 24-hour warning time before the event. Table 3-5-6.7 outlines the hazard rankings for each of the hazard priority criteria related to Flooding. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-6.7. Flood Hazard Priority

Flood Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Tsunami	Low	High	High	High	Low
Storm Surge	High	Medium	Medium	High	Medium
Areal / Riverine	High	Medium	Medium	High	Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

[74] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

Roads that are blocked or damaged can isolate residents and can prevent access throughout the planning area to many service providers needing to get to vulnerable populations or to make repairs. Bridges washed out or blocked by floods or debris also can cause isolation. This can be an issue for the first responders as well as the commuter community that relies on these transportation routes.

Potential damage is the modeled loss that could occur to the exposed inventory measured by the structural value. Below Table 3-5-6.8 summarizes the individual structure values per occupancy class.

Table 3-5-6.8. Building Stock Exposure and Value by Occupancy Class[75]

Occupancy Class	Quantity of Structures in the 100-Year Floodplain	Quantity of Structures in the 500-Year Floodplain	Exposure Value of Structures in the 100-Year Floodplain	Exposure Value of Structures in the 500-Year Floodplain
	Commercial			
Agricultural	2,703	2,921	$469,111	$515,375
Retail	1,281	1,301	$919,797	$927,186
Wholesale	1	1	$853	$853
Personal	194	201	$106,374	$109,112
Professional	15	16	$25,802	$28,405
Banks	21	21	$29,421	$29,421
Hospital	9	10	$113,417	$128,173
Entertainment	396	396	$284,386	$284,386
Theater	0	0	$0	$0
	Educational			
Grade Schools	35	35	$110,698	$110,698
College	12	12	$12,108	$12,108
	Governmental			
General Government	421	433	$306,403	$312,106
	Industrial			
Heavy	21	32	$13,165	$16,445
Light	326	338	$204,000	$207,534
Food	13	13	$8,118	$8,118
Metals	0	0	$0	$0
	Religious			
Church	264	276	$152,427	$159,711

[75] GIS Hazus-MH Data provided by FDEM.

	Residential			
Single	19,701	20,375	$5,356,731	$5,499,000
Manufactured	3,916	4,191	$328,647	$352,071
Duplex	113	159	$152,472	$198,138
Triplex	1,253	1,345	$246,057	$263,799
Multi-Family	1,202	1,202	$0	$0
Temporary	72	75	$205,386	$212,995
Institutional	62	77	$51,641	$58,325
Nursing Facilities	7	7	$49,263	$49,263

Historical flood damages to property from storm surge, areal and riverine floods include foundation and wall damage to structures, contents damage, loss of utilities, infrastructure damage to roads, and beach erosion. Damages can also include wall damage due to "wicking", mildew damage, damages to contents, foundation damage, damage to water distribution systems, and potable water contamination. Public costs include debris clearance; equipment, material and labor expenses related to emergency response; and building or facility damage (county parks, utilities, communications).

As Walton County grows, flood event impacts on the environment will become exacerbated as land develops, more structures are built, and impervious surfaces expand. Furthermore, flood extents will continue to evolve alongside natural occurrences such as sea level rise, climate change, and/or severity of coastal storms. These flood events will inevitably impact Walton County's natural and local environment.

It is important to determine the critical facilities and infrastructure that may be at risk to flooding, and who may be impacted should damage occur. Critical services during and after a flood event may not be available if critical facilities are directly damaged or transportation routes to access these critical facilities are impacted.

According to best available Geographic Information Systems (GIS) Hazus-MH (Multi-Hazard) (a nationally applicable standardized methodology developed by FEMA) software analysis of Walton County, there following Table 3-5-6.9 depicts the number of critical facility types within the tropical storm and hurricane categories 1 through 5 storm surge zones.

Table 3-5-6.9. Critical Facilities Located Within Storm Surge Zones in Walton County[76]

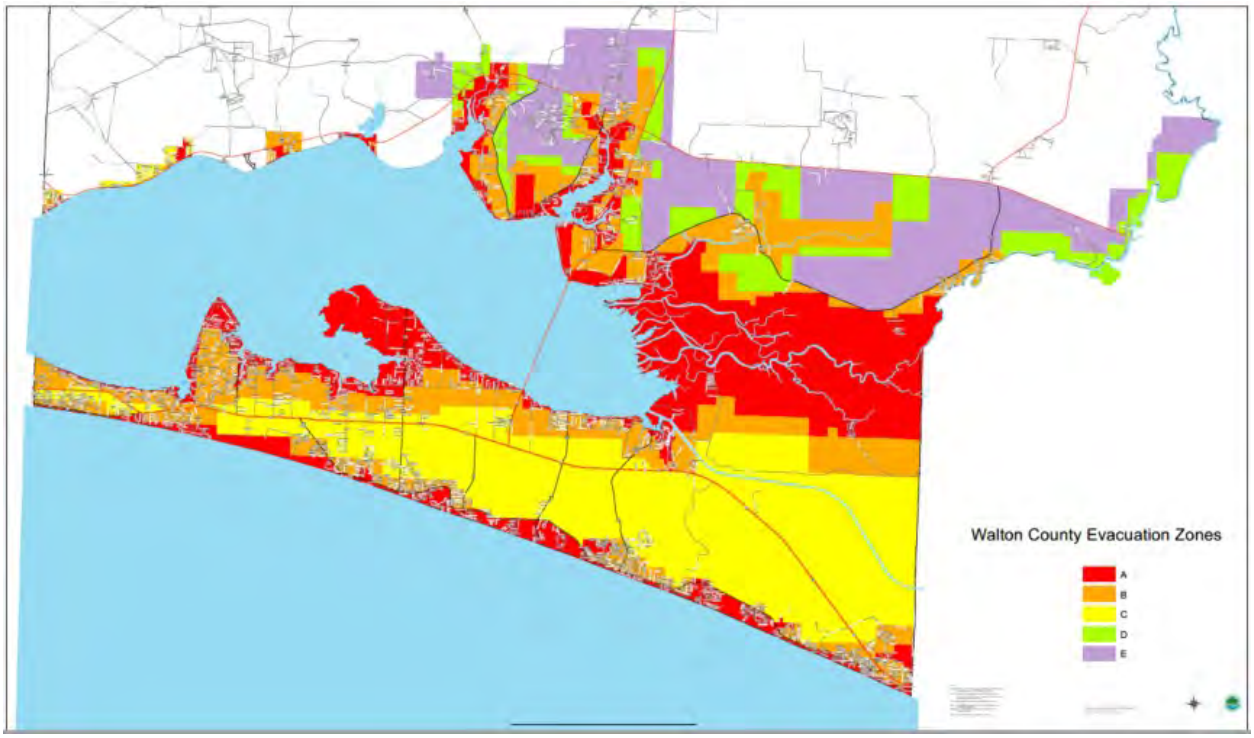
Critical Facility Type	Tropical Storm	Hurricane Cat 1	Hurricane Cat 2	Hurricane Cat 3	Hurricane Cat 4	Hurricane Cat 5
Police Stations	0	0	0	0	0	0
Fire Stations	0	0	0	0	1	1
Hospitals	0	0	0	0	0	0
EOC	0	0	0	0	0	0

[76] GIS Hazus-MH Data provided by FDEM.

Schools	0	0	0	0	0	0

Below Table 3-5-6.10 shows the flood evacuation zones for Walton County.

Table 3-5-6.10. Flood Evacuation Zones in Walton County[77]



Repetitive Loss Data

Walton County is a diverse county with areas ranging from urban to rural and coastal to inland. While all Walton County residents are vulnerable to the hazards identified in this Risk Assessment to some degree, geographic location and other factors contribute to the extent of their vulnerability and disaster impacts.

Some areas of Walton County experience repetitive flooding from heavy rainfall, causing flood damage to roadways, homes and businesses. The Federal Emergency Management Agency (FEMA) defines Repetitive Loss as: Any National Flood Insurance Program (NFIP) structure that has had at least two paid flood losses of more than $1,000 each in any 10-year period since 1978. A Severe Repetitive Loss building is any building that:

- Is covered under a Standard Flood Insurance Policy made available under this title;
- Has incurred flood damage for which:

[77] Walton County Office of Emergency Management. https://www.co.walton.fl.us/1063/Emergency-Management

- Four or more separate claim payments have been made under a Standard Flood Insurance Policy issued pursuant to this title, with the amount of each such claim exceeding $5,000, and with the cumulative amount of such claims payments exceeding $20,000; or
- At least two separate claims payments have been made under a Standard Flood Insurance Policy, with the cumulative amount of such claim payments exceed the fair market value of the insured building on the day before each loss.[78]

Walton County only has the Repetitive Loss data as provided by FEMA in 2014, as shown in below Table 3-5-6.10. Per the 2015 LMS, there were no Repetitive Loss properties within the City of DeFuniak Springs, City of Freeport or the City of Paxton. According to the February/March 2020 edition of the NFIP/CRS Update, the Insurance Service Officers (ISO) will no longer provide communities their Repetitive Loss or other NFIP insurance data to communities on behalf of FEMA due to the amended Privacy Act of 1974. Walton County requested updated Repetitive Loss data from FEMA during their last CRS cycle visit as well as on May 22, 2020 but has yet to receive that data. Upon receipt of that requested data, the below Table 3-5-6.10 will be updated and provided to FDEM.

Table 3-5-6.10 provides the Repetitive Loss property quantities for each of Walton County's jurisdictions as indicated by FEMA in 2014. The exact property locations are considered confidential and thus not included in this Risk Assessment.

Table 3-5-6.10. Repetitive Loss Building Types in Walton County by Jurisdiction[79]

	Number of Repetitive Loss Properties by Property Type		
Jurisdiction	Residential	Commercial	Institutional
Walton County, Unincorporated	263*	7	0
City of DeFuniak Springs	N/A	N/A	N/A
City of Freeport	N/A	N/A	N/A
City of Paxton	N/A	N/A	N/A

**Note: Residential numbers include Single-Family, 2-4 Family, Condominiums and "other residential" as designated within the Repetitive Loss List provided to Walton County by FEMA in 2014.*

Note: N/A= Not Available at the time of this LMS submission. Walton County requested updated Repetitive Loss data from FEMA during their last CRS cycle visit as well as on May 22, 2020 but has yet to receive that data. Upon receipt of that requested data, the Table 3-5-6.10 will be updated and provided to FDEM.

[78] FEMA Definitions. https://www.fema.gov/national-flood-insurance-program/definitions#S

[79] Data provided by Walton County Floodplain Management.

3.5.7 Geological Hazards

Description

For purposes of this 2020 LMS Update, earthquakes and sinkholes will be profiled for the *Geological Hazards Profile*.

Earthquake

An earthquake is the sudden movement of the Earth's surface caused by the release of stress accumulated within or along the edge of the Earth's tectonic plates, a volcanic eruption, or by a manmade explosion. Most earthquakes occur at the boundaries where the Earth's tectonic plates meet (faults); less than 10% of earthquakes occur within plate interiors. Florida is in an area where the rarer plate interior-related earthquakes can occur. As plates continue to move and plate boundaries change geologically over time, weakened boundary regions become part of the interiors of the plates. These zones of weakness within the continents can cause earthquakes in response to stresses that originate at the edges of the plate or in the deeper crust.[80]

The location of an earthquake is commonly described by its focal depth and the geographic position of its epicenter. The focal depth of an earthquake is the depth from the Earth's surface to the region where an earthquake's energy originates, also called the focus or hypocenter. The epicenter of an earthquake is the point on the Earth's surface directly above the hypocenter.[81] Earthquakes usually occur without warning and their effects can impact areas of great distance from the epicenter.[82]

According to the U.S. Geological Survey (USGS) Earthquake Hazards Program, an earthquake hazard is any disruption associated with an earthquake that may affect residents' normal activities. This includes surface faulting, ground shaking, landslides, liquefaction, tectonic deformation, tsunamis, and seiches; each of these terms is defined below; however, not all occur within the Walton County planning area:

- *Surface faulting*: Displacement that reaches the earth's surface during a slip along a fault. Commonly occurs with shallow earthquakes—those with an epicenter less than 20 kilometers.
- *Ground motion (shaking):* The movement of the earth's surface from earthquakes or explosions. Ground motion or shaking is produced by waves that are generated by a sudden slip on a fault or sudden pressure at the explosive source and travel through the Earth and along its surface.
- *Landslide*: A movement of surface material down a slope.
- *Liquefaction*: A process by which water-saturated sediment temporarily loses strength and acts as a fluid, like the wet sand near the water at the beach. Earthquake shaking can cause this effect.
- *Tectonic Deformation*: A change in the original shape of a material caused by stress and strain.
- *Tsunami*: A sea wave of local or distant origin that results from large-scale seafloor displacements associated with large earthquakes, major sub-marine slides, or exploding volcanic islands.
- *Seiche*: The sloshing of a closed body of water, such as a lake or bay, from earthquake shaking.[83]

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[80] Shedlock and Pakiser, USGS http://pubs.usgs.gov/gip/earthq1

[81] Shedlock and Pakiser, USGS http://pubs.usgs.gov/gip/earthq1

[82] FEMA http://www.fema.gov/media-library-data/20130726-1504-20490-4864/fema_159_units.pdf

[83] USGS http://earthquake.usgs.gov/learn/glossary/?term=seiche

Earthquakes can cause large and sometimes disastrous landslides and mudslides. Any steep slope is vulnerable to slope failure, often as a result of loss of cohesion in clay-rich soils. Unless properly secured, hazardous materials can be released, causing significant damage to the environment and people. Earthen dams and levees are highly susceptible to seismic events and the impacts of their eventual failures can be considered secondary risks for earthquakes.

Earthquakes can also cause dam failures. The most common mode of earthquake-induced dam failure is slumping or settlement of earth-fill dams where the fill has not been property compacted. If the slumping occurs when the dam is full, then overtopping of the dam, with rapid erosion leading to dam failure is possible. Dam failure is also possible if strong ground motions heavily damage concrete dams. Earthquake-induced landslides into reservoirs have also caused dam failures.

Another secondary effect of earthquakes that is often observed in low-lying areas near water bodies is ground liquefaction. Liquefaction is the conversion of water-saturated soil into a fluid-like mass. This can occur when loosely packed, waterlogged sediments lose their strength in response to strong shaking. Liquefaction effects may occur along the shorelines of the ocean, rivers, and lakes and they can also happen in low-lying areas away from water bodies in locations where the ground water is near the earth's surface.

Tsunamis can form as a result of earthquakes, volcanic eruptions, or landslides that occur under the ocean. When these events occur, huge amounts of energy are released as a result of quick, upward bottom movement. A wave is formed when huge volumes of ocean water are pushed upward. A large earthquake can lift large portions of the seafloor, which will cause the formation of huge waves.[84] Tsunamis are further discussed in Section 5.0 Flood Hazard Profile.

Sinkhole

Land subsidence (or sinkhole) can be defined as the sudden sinking or gradual downward settling of the earth's surface with little or no horizontal motion, owing to the subsurface movement of earth materials. In Florida, there are two common causes of subsidence: collapse or solution by natural or anthropogenic influences. Table 3-5-7.1 explains sinkhole formation speed based on the type as provided by the Florida Department of Environmental Protection, Florida Geological Survey.[85]

Table 3-5-7.1. Sinkhole Formation in Florida[86]

Formation Speed	Sinkhole Type	Simplified Name
Rapid	Cover-Collapse	Collapse Sinkhole

[84] Ocean Service NOAA. https://oceanservice.noaa.gov/facts/tsunami.html

[85] Florida Department of Environmental Protection, Florida Geological Survey, The Favorability of Florida's Geology to Sinkhole Formation, 2017. https://www.floridadisaster.org/dem/mitigation/statemitigationstrategy/state-hazard-mitigation-plan/

[86] Florida Department of Environmental Protection, Florida Geological Survey, The Favorability of Florida's Geology to Sinkhole Formation, 2017. https://www.floridadisaster.org/dem/mitigation/statemitigationstrategy/state-hazard-mitigation-plan/

	Rock-Collapse	
Slow	Cover-Subsidence	Solution Sinkhole
	Solution	

Sinkholes, the type of subsidence most frequently seen in Walton County, are a natural and common geologic feature in areas with underlying carbonate rock, limestone and dolostone with a variability in thick mixture of sands, clays, shells and other near-surface carbonate rock units, called overburden. The Floridan aquifer system natural erosional process has acted upon these carbonate rocks as water flows through them and creates fissures and cavities within the rock. This erosional process has created a karst topography, which is characterized by sinkholes, swallets, caves (wet and dry), submerged conduits, springs and disappearing and reappearing streams.

Both natural and man-made sinkholes can occur without warning. Slumping or falling fence posts, trees, or foundations; sudden formation of small ponds; wilting vegetation; discolored well water; and/or structural cracks in walls and floors, are all specific signs that a sinkhole is forming. They can form into steep-walled holes to bowl or cone shaped depressions. When sinkholes occur in developed areas they can cause severe property damage, injury and loss of life, disruption of utilities, and damage to roadways. In urban and suburban areas, sinkholes can destroy highways and buildings.

Location and Extent

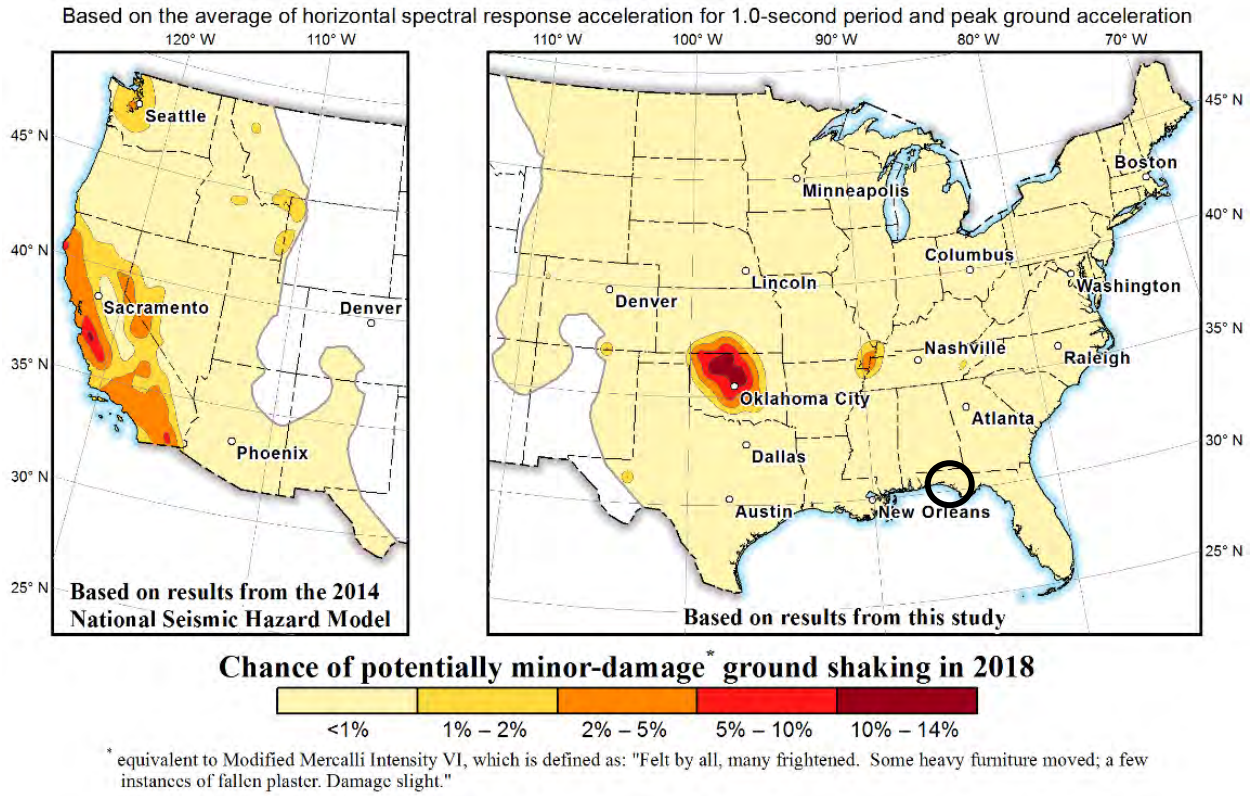
All of Walton County is exposed to earthquake and sinkhole events.

Earthquake

Records show that even if an earthquake's epicenter is a distance away, the underlying geology of the southeast United States may potentially cause some ground shaking to be felt.

The United States Geological Survey (USGS) produces one-year probabilistic seismic hazard forecasts for the United States from induced and natural earthquakes. Figure 3-5-7.1 shows chance of damage from an earthquake for the 2018 year; less than 1-percent annual chance for minor damage ground shaking. The black map circle indicates the approximate location of Walton County.

Figure 3-5-7.1. USGS Probability of Minor-Damage Ground Shaking in 2018



Note: the approximate location of Walton County is within the black circle.

Figure 3-5-7.2 shows the Modified Mercalli Intensity (MMI) Scale developed in 1931 by American seismologists. The scale shows increasing intensity levels that range from unnoticeable, faint shaking to catastrophic destruction. This scale is qualitative, based on observed effects of earthquakes, rather than based on a mathematics. The lower Roman numerals on the MMI scale deal with the way the earthquake is felt by people. The higher numbers are based on observed structural damage.[87]

[87] USGS MMI Scale https://earthquake.usgs.gov/learn/glossary/?term=Richter%20scale

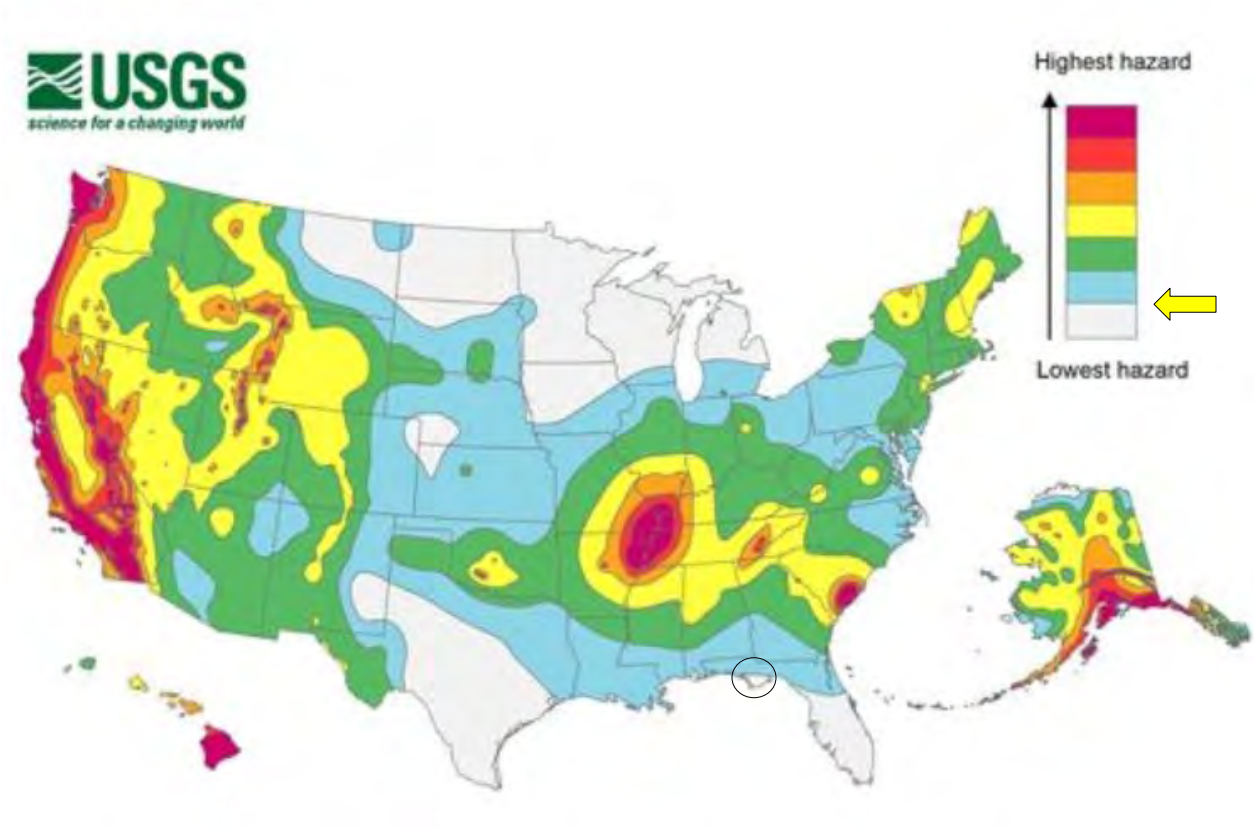
Figure 3-5-7.2. Modified Mercalli Intensity (MMI) Scale

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest,especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Another scale that is widely recognized to measure earthquake magnitude is the Richter Scale. The Richter Scale was created in 1935 and it determines the magnitude of an earthquake by using the logarithm of the amplitude of waves recorded by seismographs. Due to the logarithmic basis of the scale, each whole number rating represents an increase in magnitude of a tenfold increase measured in amplitude. Each whole number in the scale represents to the release of approximately 31 times more energy than the amount associated with the preceding whole number value.

The USGS released their latest Frequency of Damaging Earthquake Shaking in the United States map in 2018 (See Figure 3-5-7.3). The approximate location of Walton County is shown by the black circle. Walton County is classified with a low/lowest earthquake hazard ranking.

Figure 3-5-7.3. USGS Frequency of Damaging Earthquake Shaking in the United States



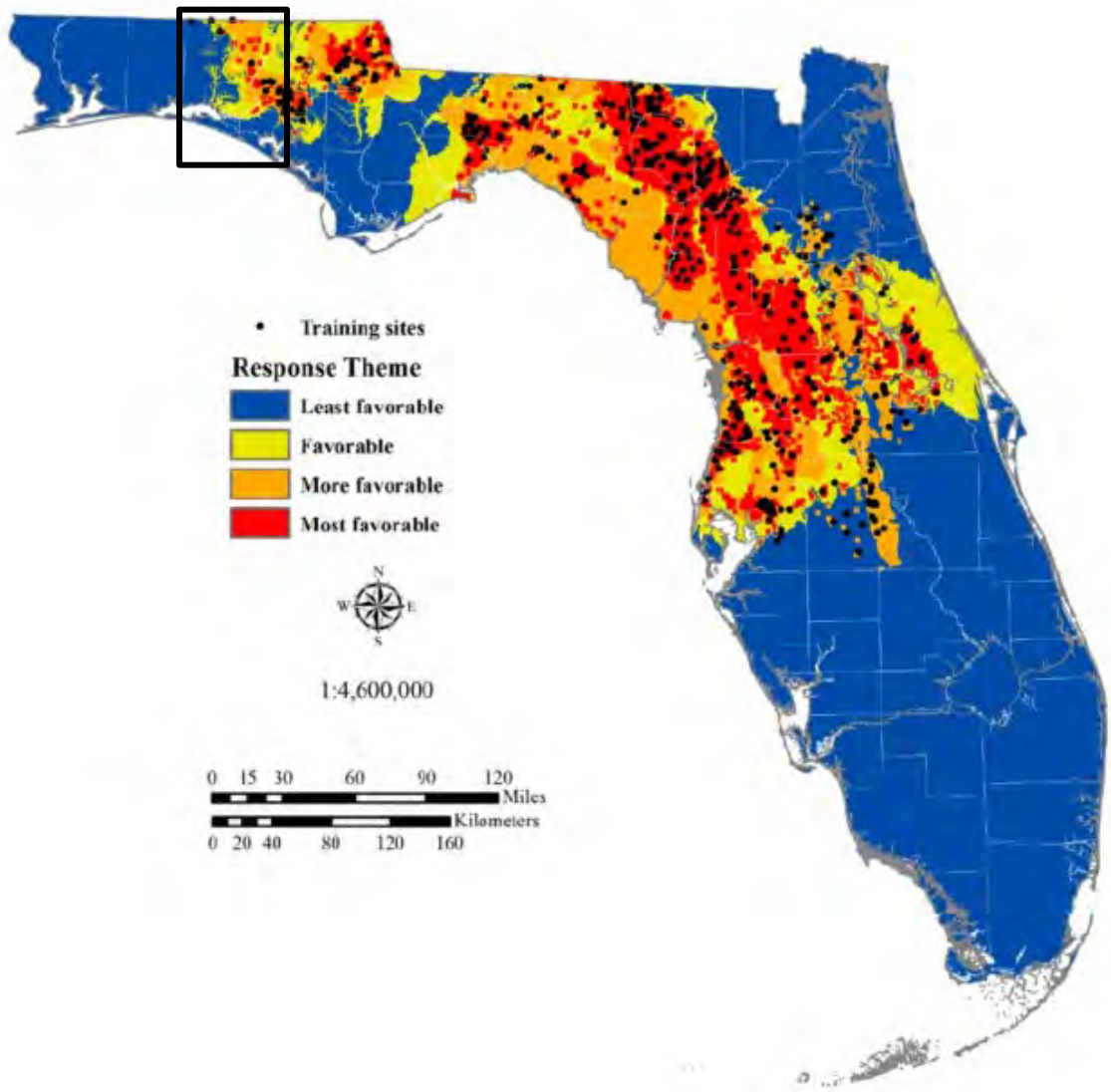
Note: The approximate location of Walton County is shown by the black circle. Walton County is classified with a low/ lowest earthquake hazard ranking.

Sinkhole

In 2017 the Florida Department of Environmental Protection, Florida Geological Survey (FGS) published their findings while having traversed Florida investigating over 3,600 points of interest (potential sinkholes) and mapped 705 sinkholes. Three statistically strong spatial data layers were then used to model the favorability of the State's geology for sinkhole formation. The team calculated weights for overburden thickness and observed sinkhole features across Florida. Figure 3-5-7.4 is the sinkhole formation favorability map created as a result of this study. The highest favorability locations for sinkhole formation is depicted in red. The black box indicates the location of Walton County and is shown to be within varying sinkhole favorability.[88]

[88] Florida Department of Environmental Protection, Florida Geological Survey, The Favorability of Florida's Geology to Sinkhole Formation, 2017. https://www.floridadisaster.org/dem/mitigation/statemitigationstrategy/state-hazard-mitigation-plan/

Figure 3-5-7.4. Sinkhole Formation Favorability Map of Florida[89]



Note: The approximate location of Walton County is located within the black box. Walton County is included in all four response theme categories of sinkhole favorability.

Previous Occurrences

Please note that not all events that have occurred in the County are included due to the extent of documentation and the fact that not all sources may have been identified or researched. Loss and impact information could vary depending

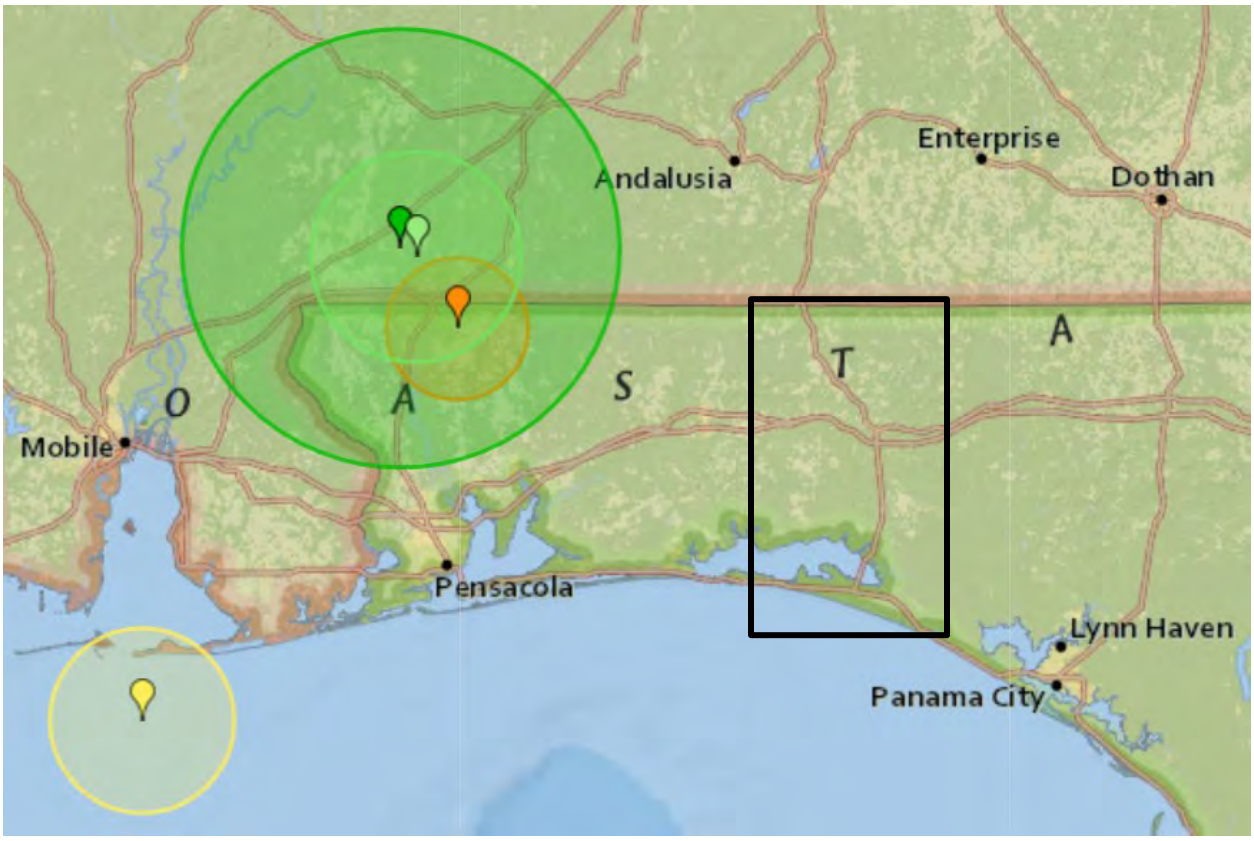
[89] Florida Department of Environmental Protection, Florida Geological Survey, The Favorability of Florida's Geology to Sinkhole Formation, 2017. https://www.floridadisaster.org/dem/mitigation/statemitigationstrategy/state-hazard-mitigation-plan/

on the source. Therefore, the accuracy of historical events discussed is based only on the available information identified during research for this LMS Update.

Earthquake

Below Figure 3-5-7.5 summarizes the earthquake historical output provided by the USGS Earthquake Hazard Program: ShakeMap tool: https://earthquake.usgs.gov/data/shakemap/ . This web-based tool provides a central resource of historical hazard data for Walton County. The approximate location of Walton County is shown by the black box. Although an earthquake could potentially occur anywhere within the county, no earthquakes have occurred within the boundaries of Walton County; the closest earthquake event occurred approximately 100 miles west in Century, FL within Escambia County, depicted by the orange pin, and left no damage. [90]

Figure 3-5-7.5. Historical Occurrences of Earthquakes Within 200 miles of Walton County[91]



Note: The approximate location of Walton County is shown by the black box. The closest earthquake event to Walton County occurred approximately 100 miles west in Century, FL within Escambia County.

[90] WKRG Local News Channel 5. Update: Magnitude 2.7 Earthquake Hits Near Century, FL. https://www.wkrg.com/northwest-florida/update-magnitude-2-7-earthquake-hits-near-century-fl/

[91] Florida Department of Environmental Protection, Florida Geological Survey, The Favorability of Florida's Geology to Sinkhole Formation, 2017. https://www.floridadisaster.org/dem/mitigation/statemitigationstrategy/state-hazard-mitigation-plan/

Figure 3-5-7.6 is an output from the USGS ShakeMap interactive mapper, in which historical earthquake events are mapped by county. This map shows that Walton County has not experienced an earthquake event within county boundaries.

Figure 3-5-7.6. Historical Occurrences of Earthquakes in Walton County[92]

[92] USGS. ShakeMap. https://earthquake.usgs.gov/data/shakemap/

According to the Earthquake Track by National Geographic eight earthquake events have occurred within 200 miles of Walton County since 1997 (this is as far back as the data provides).[93] Table 3-5-7.2 indicates these previous earthquake occurrences.

Table 3-5-7.2. Historical Earthquake Occurrences within 200 miles of Walton County from 1997 to 2019[94][95]

Date	Location	Magnitude	Depth
April 12, 2019	Flomaton, AL	1.8	5km
April 11, 2019	Flomaton, AL	2.6	5km
April 11, 2019	Brewton, AL	2.8	8.5km
April 11, 2019	Flomaton, AL	2.5	7km
March 7, 2019	Century, FL	2.7	5km
February 18, 2011	Dauphin Island, AL	3.5	5km
October 26, 1997	Flomation, AL	3.7	10km
October 24, 1997	Flomation, AL	4.8	10km

Sinkhole

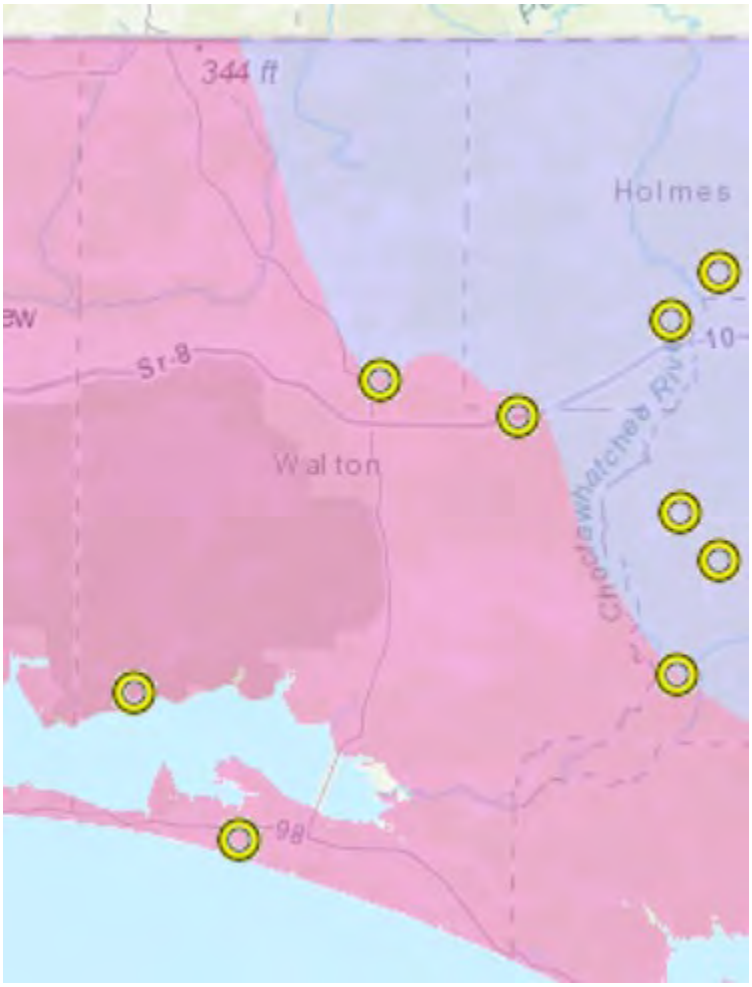
The Department of Environmental Protection (DEP) provides an interactive web-based mapper for users in which historical sinkholes are mapped by county. The interactive map shows that Walton County has experienced four sinkholes from 1985 to 2013 (most recent data available). See Table 3-5-7.3 depicting results of DEP's sinkhole mapper. Figure 3-5-7.7 shows the map output from DEP's sinkhole mapper.

Table 3-5-7.3. Historical Occurrences of Sinkholes in Walton County from 1985 - 2013

Event Date	Sinkhole Dimensions	Event Narrative
August 14, 2013	18ft deep	Sinkhole is the size of a basketball and 18ft deep and contains water.
August 11, 2007	5ft long x 5ft wide	Sinkhole opened on Minor Road. Traffic continued around affected area.
July 12, 2007	10ft deep x 10ft long	Sinkhole reported on SR 83 at E. Burdick Ave. SR 83 closed. No structures impacted. Road reopened July 24, 2007.
September 20, 1985	7ft deep x 22ft long x 20ft wide	Sinkhole reported on I-10 westbound.

[93] Earthquake Track. https://earthquaketrack.com/us-fl-fort-walton-beach/recent
[94] Earthquake Track. https://earthquaketrack.com/us-fl-fort-walton-beach/recent
[95] WKRG Local News Channel 5. https://www.wkrg.com/northwest-florida/9th-earthquake-strikes-near-florida-alabama-state-line/

Figure 3-5-7.7. Map of Historical Sinkholes in Walton County from 1985 to 2013[96]



In March 2017, WTVY Local Channel 4 reported that according to the Walton County Sheriff's Office a 50-foot long, 75-foot wide, and 15-foot deep sinkhole near the intersection of Highway 283 and 30A opened up and shut down the roadway.[97] The County Public Works Department later determined that beavers caused an area under the roadway to fill with water causing under washing of the roadway.[98]

[96] FDEP. Subsidence Incident Reports. https://floridadep.gov/fgs/sinkholes/content/subsidence-incident-reports
[97] WTVY, Sinkhole Closes Part of a Roadway in Walton County. https://www.wtvy.com/content/news/Sinkhole-closes-part-of-a-roadway-in-Walton-County-416932933.html
[98] NWF Daily News, Beavers the Culprit in 30A Road Collapse. https://www.nwfdailynews.com/news/20170323/beavers-culprit-in-30a-road-collapse

In February 2020, My Panhandle News reported a "large hole" opened in the roadway of County Highway 280A between East Indian Creek Ranch Road and Jim Lindsay Road. The article did not explicitly indicate whether the hole was due to a sinkhole.[99]

Probability of Future Events

Since Florida does not have any geological fault lines, earthquakes are very rare. Many reports of earthquakes felt in Florida are originated from tremors or personal accounts of "tremblors." There was some shaking reported in 2016, originally thought to be a rare earthquake in the Gulf of Mexico, but later discovered to be explosion tests by the U.S. Navy.[100] Since Walton County is not located on a fault line and the fact that the county has not experienced an earthquake within 200 miles in the past, the probability of Walton County experiencing future earthquakes is low.

Sinkhole occurrence is a continuing phenomenon and is common in Walton County, and the probability of sinkholes forming in Walton County is low-medium. As these areas become increasingly developed the strain on underground aquifers will increase. This will pose an even greater threat for sinkholes in those areas resulting from groundwater depletion.

Climate change may increase the future occurrence of sinkholes in Walton County. One of the triggers for subsidence and sinkholes is an abundance of moisture which has the potential to permeate the bedrock causing an event. Climatologists expect an increase in annual precipitation amounts. This increase will coincide with an increased risk in subsidence and sinkholes in vulnerable areas.

For this 2020 LMS update, the most up-to-date data was collected to calculate the probability of future occurrence of earthquake and sinkhole events, of all magnitudes, for Walton County. See Table 3-5-7.4 for the probability calculation of future occurrences of earthquakes and sinkholes in Walton County.

Table 3-5-7.4. Probability of Earthquake and Sinkhole Events Occurring in Walton County

Hazard Type	Number of Occurrences Between 1950 and 2017	Rate of Occurrence	Recurrence Interval (in years)	Probability of event Occurring in Any Given Year	% Chance of Occurring in Any Given Year
Earthquake	0	0	0	0	0
Sinkhole	4	0.06	17.50	0.06	5.71%

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined the geological hazard to be a low priority hazard in Walton County. As described in the profile above, geological events within the county are common events. Table 3-5-

[99] My Panhandle News, Large Hole in Roadway Leads to Detours in DeFuniak Springs. https://www.mypanhandle.com/news/walton-county/large-hole-in-roadway-leads-to-detours-in-defuniak-springs/

[100] 2018 State of Florida Enhanced Hazard Mitigation Plan

7.5 outlines the hazard rankings for each of the hazard priority criteria related to earthquake and sinkhole hazards. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-7.5. Earthquake and Sinkhole Hazard Priority in Walton County

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Earthquake	Low	Low	Low	High	Low
Sinkhole	Medium	Low-Medium	Low-Medium	Low	Low-Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

The entire county is vulnerable to both earthquake and sinkhole events. However, the degree of impact is dependent on many factors including the age and type of construction people are living in, the soil types residential structures are located on, and the intensity of the earthquake or sinkhole occurrence. Whether directly or indirectly impacted, Walton County's residents and responders could be face with impacts to facilities, road closures that could isolate populations, and loss of function of critical facilities and utilities.

Both earthquake and sinkhole events occur suddenly, with little to no warning, compared to other hazard events, which can make it challenging to manage especially for a densely populated campus. Overall, risk to public safety and loss of life from an earthquake or sinkhole in the County is minimal. However, there is a higher risk to public safety for those inside buildings due to structural damage or people walking below building ornamentations and facades that may be shaken loose and fall.

Impact to property has several determining factors. A building's construction determines how well it can withstand the force of an earthquake or the sudden hole creation of a sinkhole. The USGS indicates that unreinforced masonry buildings are most at risk during an earthquake because the walls are prone to collapse outward, whereas steel and wood buildings absorb more of the earthquake's energy. Additional attributes that affect a building's capability to withstand an earthquake's force include its age, number of stories, and quality of construction.

Earthquake and sinkhole events can significantly affect road bridges, many of which provide the only access to certain neighborhoods. Because softer soils generally follow floodplain boundaries, bridges that cross watercourses should be considered vulnerable. Another key factor in degree of vulnerability is age of facilities and infrastructure, which correlates with standards in place at time of construction.

Earthquakes and sinkholes can damage the natural environment such as parks or recreation plazas. Earthquakes may even create land subsidence/ sinkholes or ground failure in these areas, making them unsafe for Walton County residents and first responders.

Operations could be impacted if a government building is partially or fully collapsed due to an earthquake or sinkhole, or if a roadway is deemed unnavigable by an earthquake or sinkhole opening the roadway. This could marginalize a population such as residential communities, shopping areas or government facility complexes.

3.5.8 Severe Weather

Description

For the purpose of this LMS update and as deemed appropriated by Walton County, the severe weather hazard includes thunderstorms, tropical cyclones (tropical storms, hurricanes), tornadoes, extreme temperatures (heat and cold) which are defined in the sections below.

Thunderstorms

A thunderstorm is a local storm produced by a cumulonimbus cloud and accompanied by lightning and thunder. A thunderstorm forms from a combination of moisture; rapidly rising warm air; and a force capable of lifting air, such as a warm front, cold front, a sea breeze, or a mountain. Thunderstorms form from the equator to as far north as Alaska. Although thunderstorms generally affect a small area when they occur, they have the potential to become dangerous due to their ability to generate tornadoes, hailstorms, strong winds, flash flooding, and lightning.

Thunderstorms can lead to heavy rain induced flooding, landslides, strong winds, and lightning. Roads may become impassable from flooding, downed trees or power lines, or a landslide. Downed power lines can lead to loss of utility services, such as water, phone, and electricity. Typical thunderstorms are 15 miles in diameter and last an average of 30 minutes. During the summer, thunderstorms are responsible for most of the rainfall.[101]

Tropical Cyclones

A tropical cyclone is characterized by a low-pressure center and numerous thunderstorms that produce strong winds and heavy rain. Tropical depressions, tropical storms, and hurricanes are all considered tropical cyclones. Tropical cyclones strengthen when water evaporated from the ocean is released as the saturated air rises, resulting in condensation of water vapor contained in the moist air. These storms rotate counterclockwise in the northern hemisphere around the center and are accompanied by heavy rain and strong winds. Almost all tropical storms and hurricanes in the Atlantic basin (which includes the Gulf of Mexico and Caribbean Sea) form between June 1 and November 30 (hurricane season). August and September are peak months for hurricane development.[102]

Tropical cyclones are fueled by a different heat mechanism than other cyclonic windstorms such as Nor'Easters and polar lows. The characteristic that separates tropical cyclones from other cyclonic systems is that at any height in the

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[101] National Severe Storms Laboratory (NSSL). Severe Weather 101. https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/

[102] National Hurricane Center (NHC). Tropical Cyclone Climatology. https://www.nhc.noaa.gov/climo/

atmosphere, the center of a tropical cyclone will be warmer than its surroundings; a phenomenon called "warm core" storm systems.[103]

Tornadoes

A tornado appears as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach 250 miles per hour (mph). Damage paths can be greater than 1 mile wide and 50 miles long. Tornadoes typically develop from either a severe thunderstorm or hurricane as cool air rapidly overrides a layer of warm air. Tornadoes typically move at speeds between 30 and 125 mph and can generate combined wind speeds (forward motion and speed of the whirling winds) exceeding 300 mph. The lifespan of a tornado rarely is longer than 30 minutes. Tornadoes can occur at any time of the year, with peak seasons at different times for different states.[104]

Extreme Temperatures

Extreme heat is defined as temperatures which hover 10 degrees or more above the average high temperature for a region and that last for several weeks.[105] A heat wave is defined as a period of abnormally and uncomfortably hot and unusually humid weather. Typically, a heat wave lasts two or more days. There is no universal definition of a heat wave because the term is relative to the usual weather in a particular area. The term heat wave is applied both to routine weather variations and to extraordinary spells of heat which may occur only once a century.[106]

Urbanized areas and urbanization create an exacerbated type of risk during an extreme heat event, compared to rural and suburban areas. As defined by the U.S. Census, urban areas are classified as all territory, population, and housing units located within urbanized areas and urban clusters. The term urbanized area denotes an urban area of 50,000 or more people. Urban areas under 50,000 people are called urban clusters. The U.S. Census delineates urbanized area and urban cluster boundaries to encompass densely settled territory, which generally consists of:

- A cluster of one or more block groups or census blocks each of which has a population density of at least 1,000 people per square mile at the time.
- Surrounding block groups and census blocks each of which has a population density of at least 500 people per square mile at the time.
- Less densely settled blocks that form enclaves or indentations or are used to connect discontinuous areas with qualifying densities.[107]

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[103] NOAA. Hurricanes. https://www.noaa.gov/education/resource-collections/weather-atmosphere-education-resources/hurricanes

[104] Storm Prediction Center (SPC). Tornado FAQ. https://www.spc.noaa.gov/faq/tornado/

[105] Centers for Disease Control (CDC). Extreme Heat. https://www.cdc.gov/disasters/extremeheat/heat_guide.html

[106] NOAA. SciJinks. Heat Wave. https://scijinks.gov/heat/

[107] 2010 Census Urban and Rural Classification. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html

As these urban areas develop and change, so does the landscape. Buildings, roads, and other infrastructure replace open land and vegetation. Surfaces that were once permeable and moist are now impermeable and dry. These changes cause urban areas to become warmer than the surrounding areas. This forms an 'island' of higher temperatures.

The term 'heat island' describes built up areas that are hotter than nearby rural areas. The annual mean air temperature of a city with more than one million people can be between 1.8 ºF and 5.4ºF warmer than its surrounding areas. In the evening, the difference in air temperatures can be as high as 22ºF. Heat islands occur on the surface and in the atmosphere. On a hot, sunny day, the sun can heat dry, exposed urban surfaces to temperatures 50ºF to 90ºF hotter than the air. Heat islands can affect communities by increasing peak energy demand during the summer, air conditioning costs, air pollution and greenhouse gas emissions, heat-related illness and death, and water quality degradation.[108]

Extreme cold events are when temperatures drop well below normal in an area. In regions relatively unaccustomed to winter weather, near freezing temperatures are considered "extreme cold." Extreme cold temperatures are generally characterized in temperate zones by the ambient air temperature dropping to approximately 0ºF or below. Extremely cold temperatures often accompany a winter storm, which can cause power failures and icy roads. Although staying indoors as much as possible can help reduce the risk of car crashes and falls on the ice, individuals may also face indoor hazards. Many homes will be too cold—either due to a power failure or because the heating system is not adequate for the weather. The use of space heaters and fireplaces to keep warm increases the risk of household fires and carbon monoxide poisoning.[109]

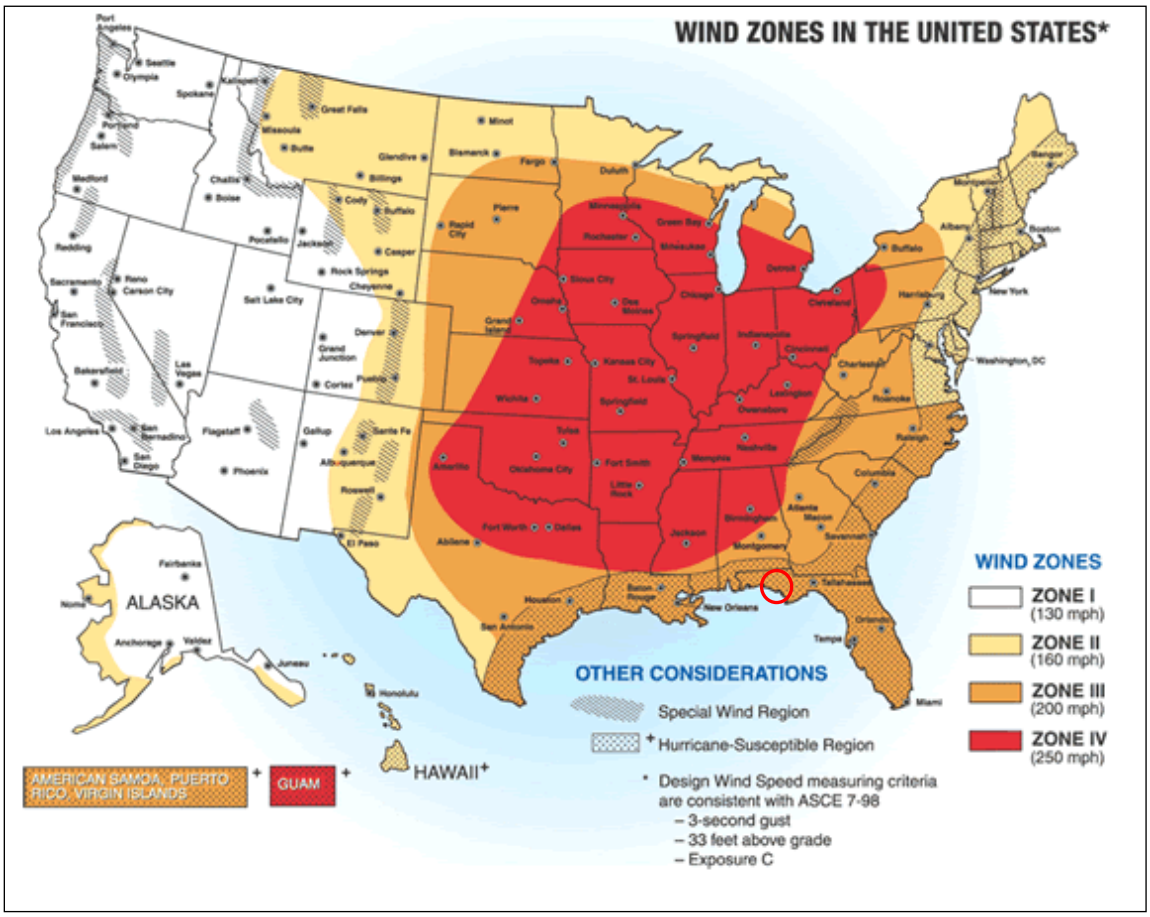
Location and Extent

The entirety Walton County is at risk of the damaging effects of thunderstorms, tropical cyclones, tornadoes and extreme temperatures. According to the FEMA Winds Zones of the United States map, Walton County is located in Wind Zone III, where wind speeds can reach up to 200 mph. The County is also located in the "Hurricane Susceptible Region," which extends along the entire east coast from Maine to Florida, the Gulf Coast. Figure 3-5-8.1 illustrates wind zones across the United States, which indicate the impacts of the strength and frequency of wind activity per region. This is based on 40 years of tornado data and 100 years of hurricane data, collected by FEMA.

[108] US Environmental Protection Agency (EPA). Heat Island Effect. https://www.epa.gov/heat-islands

[109] NSSL. Winter Weather. https://www.nssl.noaa.gov/research/winter/

Figure 3-5-8.1. Wind Zones in the United States[110]



Note: The red circle indicates the approximate location of Walton County. Walton County is in the "Hurricane Susceptible Region."

Thunderstorms

NWS considers a thunderstorm severe if it produces damaging wind gusts of 58 mph or higher, hail 1 inch (quarter size) in diameter or larger, or tornadoes.[111] Severe thunderstorm watches and warnings are issued by the local NWS office and NOAA's Storm Prediction Center (SPC). NWS and SPC will update the watches and warnings and will notify the public when they are no longer in effect. Watches and warnings for thunderstorms in Florida are defined as follows:[112]

- *Severe Thunderstorm Warnings* are issued when there is evidence based on radar or a reliable spotter report that a thunderstorm is producing (or is forecast to produce) wind gusts of 58 mph or greater, structural wind damage, and hail 1 inch in diameter or greater. A warning will include the location of the storm, the municipalities that are expected to be impacted, and the primary threat associated with the severe thunderstorm warning. After it has

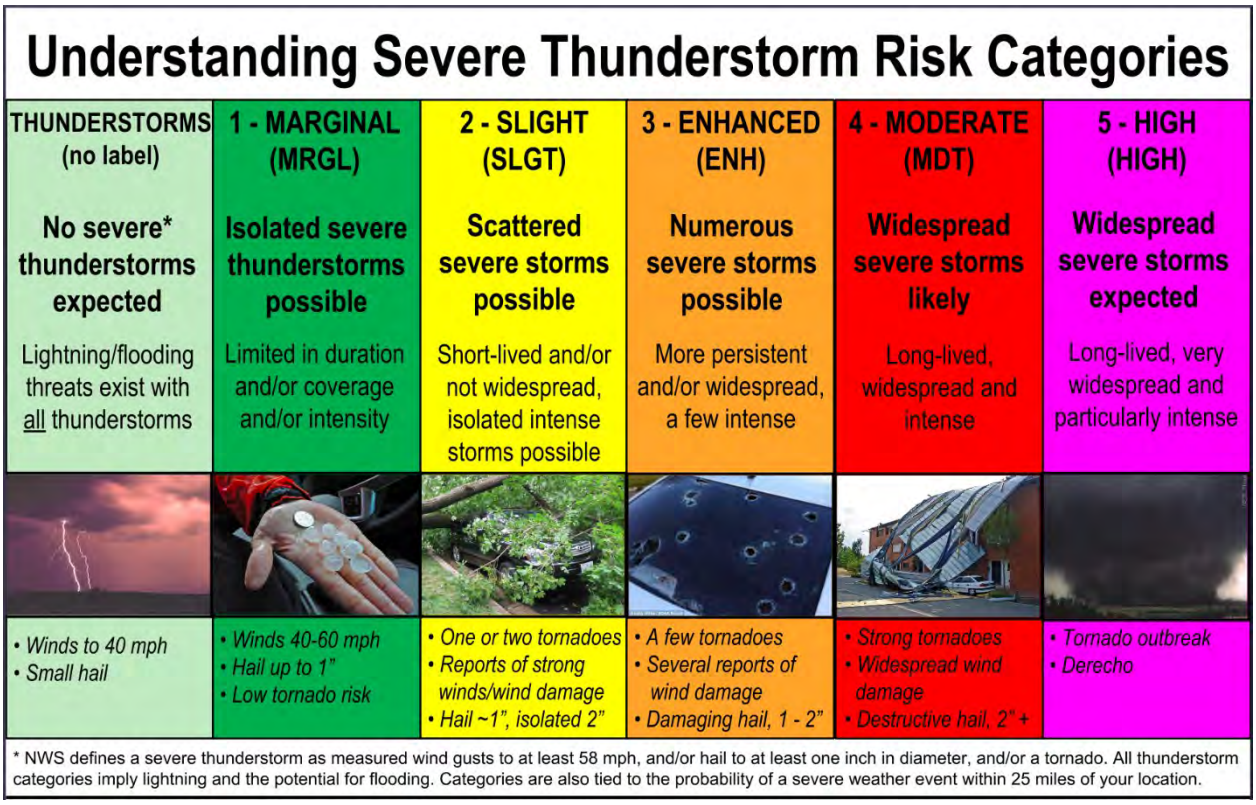
[110] FEMA. 2018 International Building Code. https://www.fema.gov/media-library-data/1576594582768-4d3b3737118c9d3860165abd74f1a7eb/2018_IBC_Compilation_of_wind_resist_provisions_20191211_v3.pdf
[111] NOAA NWS. Thunderstorms, Tornadoes, Lightning. https://www.weather.gov/media/owlie/ttl6-10.pdf
[112] NWS. Thunderstorm Safety. https://www.weather.gov/media/owlie/3-fold-Brochure-Thunderstorm-Safety-08-07-18-FINAL.pdf

been issued, the NWS office will follow up periodically with Severe Weather Statements, which contain updated information on the severe thunderstorm and will let the public know when the warning is no longer in effect.

- *Severe Thunderstorm Watches* are issued by the SPC when conditions are favorable for the development of severe thunderstorms over a larger-scale region for a duration of at least 3 hours. Tornadoes are not expected in such situations, but isolated tornado development may also occur. Watches are normally issued well in advance of the actual occurrence of severe weather. During the watch, NWS will keep the public informed on developments happening in the watch area and will also notify the public when the watch has expired or been cancelled.
- *Special Weather State for Near Severe Thunderstorms* bulletins are issued for strong thunderstorms that are below severe levels, but still may have some adverse impacts. Usually, they are issued for the threat of wind gusts of 40 to 58 mph or small hail less than one (1) inch in diameter.

In addition, the SPC issues severe thunderstorm risk maps based on the likelihood of different severities of thunderstorms. Figure 3-5-8.2 shows the SPC's severe thunderstorm risk categories.

Figure 3-5-8.2. Severe Thunderstorm Risk Categories[113]

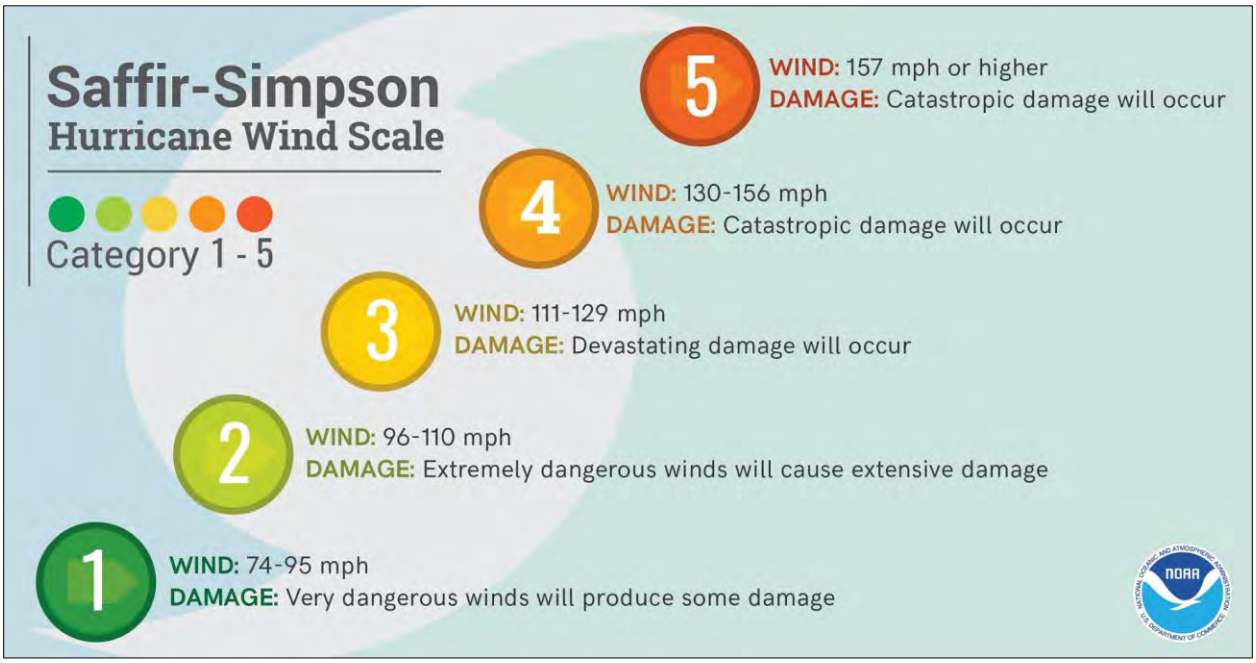


[113] NOAA SPC. SPC Products. https://www.spc.noaa.gov/misc/about.html

Tropical Cyclones

The extent of a hurricane or tropical storm is commonly categorized in accordance with the Saffir-Simpson Hurricane Wind Scale, which assigns a designation of tropical storm for storms with sustained wind speeds below 74 mph and a hurricane category rating of 1–5 based on a hurricane's increasing sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Tropical Storms and Category 1 and 2 storms are still dangerous and require preventative measures.[114] Figure 3-5-8.3 presents this scale, which is used to estimate the potential property damage and flooding expected when a hurricane makes landfall.

Figure 3-5-8.3. Saffir-Simpson Scale[115]



The National Weather Service (NWS) issues hurricane and tropical storm watches and warnings. These watches and warnings are issued or will remain in effect after a tropical cyclone becomes post-tropical, when such a storm poses a significant threat to life and property. The NWS allows the National Hurricane Center (NHC) to issue advisories during the post-tropical stage. The following are the definitions of the watches and warnings:[116]

- *Hurricane/Typhoon Warning* is issued when sustained winds of 74 mph or higher are expected somewhere within the specified area in association with a tropical, subtropical, or post-tropical cyclone. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the warning is issued 36 hours in advance of the anticipated onset of tropical storm-force winds. The warning can remain in effect when dangerously high water or combination of dangerously high water and waves continue, even though winds may be less than hurricane force.

[114] NHC. Saffir-Simpson Hurricane Wind Scale. https://www.nhc.noaa.gov/aboutsshws.php
[115] NHC. Saffir-Simpson Hurricane Wind Scale. https://www.nhc.noaa.gov/aboutsshws.php
[116] NHC. Saffir-Simpson Hurricane Wind Scale. https://www.nhc.noaa.gov/aboutsshws.php

- *Hurricane Watch* is issued when sustained winds of 74 mph or higher are possible within the specified area in association with a tropical, subtropical, or post-tropical cyclone. Because hurricane preparedness activities become difficult once winds reach tropical storm force, the hurricane watch is issued 48 hours prior to the anticipated onset of tropical storm-force winds.
- *Tropical Storm Warning* is issued when sustained winds of 39 to 73 mph are expected somewhere within the specified area within 36 hours in association with a tropical, subtropical, or post-tropical storm.
- *Tropical Storm Watch* is issued when sustained winds of 39 to 73 mph are possible within the specified area within 48 hours in association with a tropical, sub-tropical, or post-tropical storm.

Tornadoes

The magnitude or severity of a tornado was originally categorized using the Fujita Scale (F-Scale) or Pearson Fujita Scale introduced in 1971. This used to be the standard measurement for rating the strength of a tornado.

On February 1, 2007, the Enhanced Fujita Scale (EF-Scale) became operational. The EF-Scale is now the standard used to measure the strength of a tornado. It is used to assign tornadoes a 'rating' based on estimated wind speeds and related damage. When tornado-related damage is surveyed, it is compared to a list of Damage Indicators (DI) and Degree of Damage (DOD), which help better estimate the range of wind speeds produced by the tornado. From that, a rating is assigned, similar to that of the F-Scale, with six categories from EF0 to EF5, representing increasing degrees of damage. The EF-Scale was revised from the original F-Scale to reflect better examinations of tornado damage surveys. This new scale considers how most structures are designed. Table 3-5-8.1 displays the EF-Scale and each of its six categories.

Table 3-5-8.1. Enhanced Fujita Damage Scale[117]

EF-Scale Number	Intensity Phrase	Wind Speed (mph)	Type of Damage Done
EF0	Light tornado	65–85	Light damage. Peels surface off some roofs; some damage to gutters or siding; branches broken off trees; shallow-rooted trees pushed over.
EF1	Moderate tornado	86-110	Moderate damage. Roofs severely stripped; mobile homes overturned or badly damaged; loss of exterior doors; windows and other glass broken.
EF2	Significant tornado	111-135	Considerable damage. Roofs torn off well-constructed houses; foundations of frame homes shifted; mobile homes completely destroyed; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF3	Severe tornado	136-165	Severe damage. Entire stories of well-constructed houses destroyed; severe damage to large buildings such as shopping malls; trains overturned; trees debarked; heavy cars lifted off the ground and thrown; structures with weak foundations blown away some distance.
EF4	Devastating tornado	166-200	Devastating damage. Well-constructed houses and whole frame houses completely leveled; cars thrown and small missiles generated.
EF5	Incredible tornado	>200	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 meters (109 yards); high-rise buildings have significant structural deformation; incredible phenomena occur.

[117] Storm Prediction Center (SPC). The Enhanced Fujita Scale. https://www.spc.noaa.gov/efscale/

EF-Scale *Enhanced Fujita Scale*
mph *miles per hour*

Extreme Temperatures

NOAA's heat alert procedures are based mainly on Heat Index values. The Heat Index is given in degrees Fahrenheit. The Heat Index is a measure of how hot it really feels when relative humidity is factored in with the actual air temperature. To find the Heat Index temperature, the temperature and relative humidity need to be known. Once both values are known, the Heat Index will be the corresponding number with both values (Figures 3-5-8.4 and 3-5-8.5). The Heat Index indicated the temperature the body feels. It is important to know that the Heat Index values are devised for shady, light wind conditions. Exposure to full sunshine can increase heat index values by up to 15°F. Strong winds, particularly with very hot dry air, can also be extremely hazardous.[118]

Figure 3-5-8.4. NWS Heat Index Chart[119]

Temperature (°F)

Relative Humidity (%)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

Caution | Extreme Caution | Danger | Extreme Danger

°F *degrees Fahrenheit*
% *percent*

Figure 3-5-8.5. Adverse Effects of Prolonged Exposures to Heat on Individuals[120]

Category	Heat Index	Health Hazards
Extreme Danger	130 °F – Higher	Heat Stroke / Sunstroke is likely with continued exposure.
Danger	105 °F – 129 °F	Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.

[118] CDC. Extreme Heat. https://www.cdc.gov/disasters/extremeheat/heat_guide.html
[119] NOAA NWS. Heat Index. https://www.weather.gov/safety/heat-index
[120] NOAA NWS. Heat Exposure Effects. https://www.weather.gov/safety/heat-illness

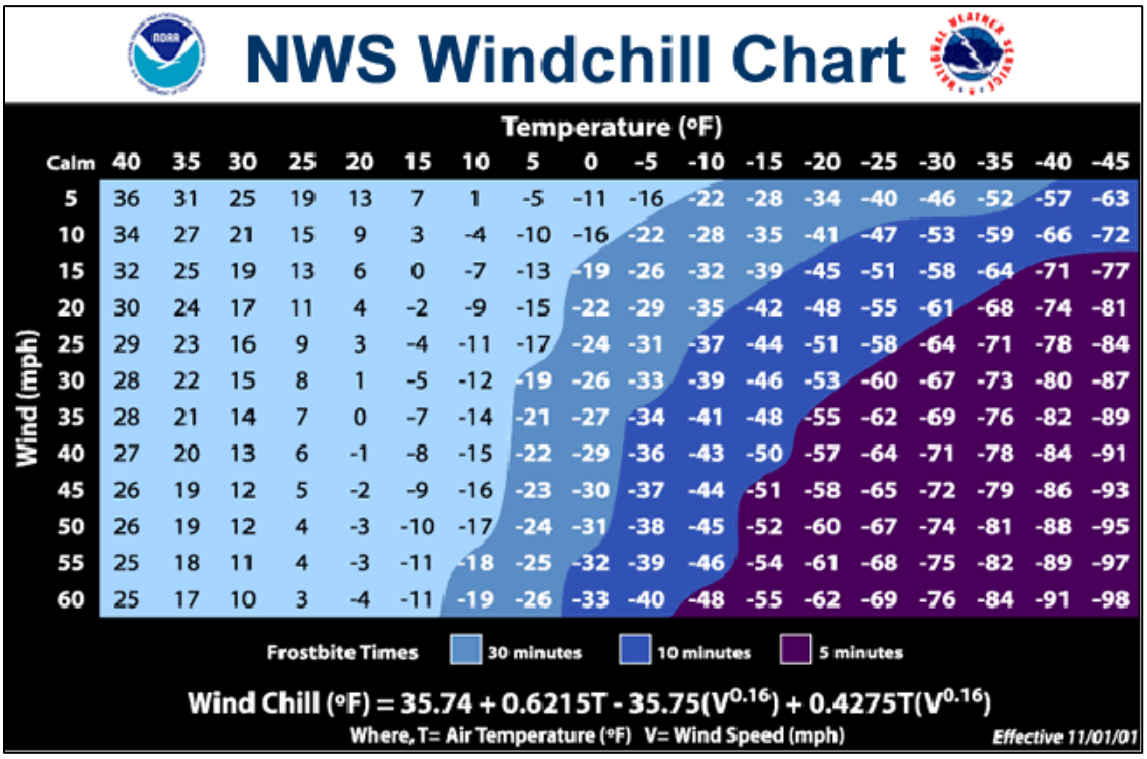
Category	Heat Index	Health Hazards
Extreme Caution	90 °F – 105 °F	Sunstroke, muscle cramps, and/or heat exhaustions possible with prolonged exposure and/or physical activity.
Caution	80 °F – 90 °F	Fatigue possible with prolonged exposure and/or physical activity.

°F degrees Fahrenheit

The extent (severity or magnitude) of extreme cold temperatures are generally measured through the Wind Chill Temperature (WCT) Index. Wind Chill Temperature is the temperature that people and animals feel when outside and it is based on the rate of heat loss from exposed skin by the effects of wind and cold. As the wind increases, the body is cooled at a faster rate causing the skin's temperature to drop.[121]

On November 1, 2001, the NWS implemented a new Windchill Chart. It was designed to more accurately calculate how cold air feels on human skin. The NWS Windchill Chart includes a frostbite indicator, showing points where temperature, wind speed, and exposure time will produce frostbite to humans. Figure 3-5-8.6 shows three shaded areas of frostbite danger. Each shaded area shows how long a person can be exposed before frostbite develops.[122]

Figure 3-5-8.6. NWS Wind Chill Index[123]



°F degrees Fahrenheit
mph miles per hour

[121] NOAA NWS. Cold Weather Safety. https://www.weather.gov/safety/cold
[122] NOAA NWS. During Extremely Cold Weather. https://www.weather.gov/safety/cold-during
[123] NOAA NWS. Wind Chill Chart. https://www.weather.gov/safety/cold-wind-chill-chart

Previous Occurrences

Many sources provided historical information regarding previous occurrences and losses associated with severe weather events throughout Walton County. Table 3-5-8.2 documents historical severe weather events from 1950 to December 2019 in Walton County based on data collected from the NOAA NCEI and FEMA disaster declaration databases.

Table 3-5-8.2. Severe Weather-Related Events in Walton County 1950 to 2019[124][125]

Hazard Type	Number of Occurrences Between 1950 and 2019	Total Fatalities	Total Injuries	Total Property Damage ($)	Total Crop Damage ($)
Thunderstorm	143	0	6	1.432M	$0
Tropical Storm	15	0	0	$10.596M	$0
Hurricanes	5	0	1	$77.8M	$1.5B
Tornadoes	44	0	7	$0	$0
Extreme Cold	1	0	0	$0	$0
Extreme Heat	0	0	0	$0	$0
TOTAL	207	0	14	$89.828M	$1.5B

Notes: M Million; K Thousand; B Billion

Between 1954 and 2019, FEMA included Florida in 66 severe weather-related major disaster (DR) or emergency (EM) declarations classified as one or a combination of the following disaster types: severe storms, flooding, and hurricane. Generally, these disasters cover a wide region of the State; therefore, they may have impacted many counties. Between 1954 and December 2019, Walton County has been included in 22 declarations for severe weather-related events classified as one or a combination of the following disaster types: severe storm, straight-line winds, tornado, tropical storm or hurricane. Table 3-5-8.3 lists these events.

Table 3-5-8.3. Severe Weather-Related FEMA Disaster Declarations for Walton County 1954 to 2019[126]

Declaration	Event Date	Declaration Date	Event Description
EM-3419	August 28, 2019 – September 9, 2019	August 30, 2019	Florida Hurricane Dorian
DR-4399	October 7, 2018 – October 19, 2018	October 11, 2018	Florida Hurricane Michael
EM-3405	October 7, 2018 – October 19, 2018	October 11, 2018	Florida Hurricane Michael

[124] NOAA NCEI Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA
[125] FEMA. Disasters. https://www.fema.gov/disasters
[126] FEMA. Disasters. https://www.fema.gov/disasters

Declaration	Event Date	Declaration Date	Event Description
DR-4337	September 4, 2017 – October 18, 2017	September 10, 2017	Florida Hurricane Irma
EM-3385	September 4, 2017 – October 18, 2017	September 5, 2017	Florida Hurricane Irma
DR-4177	April 28, 2014 – May 6, 2014	June 13, 2014	Florida Severe Storms, Tornadoes, Straight-line Winds and Flooding
DR-4138	July 2, 2013 – July 7, 2013	August 22, 2013	Florida Severe Storms and Flooding
DR-1831	March 26, 2009 – May 5, 2009	April 21, 2009	Florida Severe Storms, Flooding, Tornadoes and Straight-line Winds
EM-3288	August 18, 2008 – September 12, 2008	August 21, 2008	Florida Tropical Storm Fay
DR-1602	August 24, 2005 – September 6, 2005	August 28, 2005	Florida Hurricane Katrina
EM-3220	August 29, 2005 – October 1, 2005	September 5, 2005	Florida Hurricane Katrina Evacuation
DR-1595	July 7, 2005 – July 20, 2005	July 10, 2005	Florida Hurricane Dennis
DR-1551	September 13, 2004 – November 17, 2004	September 16, 2004	Florida Hurricane Ivan
DR-1545	September 3, 2004 – October 8, 2004	September 4, 2004	Florida Hurricane Frances
DR-1539	August 11, 2004 – August 30, 2004	August 13, 2004	Florida Hurricane Charley and Tropical Storm Bonnie
DR-1249	September 25, 1998 – October 7, 1998	September 28, 1998	Florida Hurricane Georges
EM-3131	September 25, 1998 – October 7, 1998	September 25, 1998	Florida Hurricane Georges
DR-1195	December 25, 1997 – April 24, 1998	January 6, 1998	Florida Tornadoes
DR-1069	October 4, 1995 – October 11, 1995	October 4, 1995	Florida Hurricane Opal
DR-1062	August 2, 1995 – August 3, 1995	August 10, 1995	Florida Hurricane Erin
DR-1035	July 2, 1994 – July 29, 1994	July 10, 1994	Florida Severe Storm, Flooding, Tropical Storm Alberto
DR-600	September 13, 1979	September 13, 1979	Florida Hurricane Frederic

The Secretary of Agriculture from the U.S. Department of Agriculture (USDA) is authorized to designate counties as disaster areas to make emergency loans available to producers suffering losses in those counties and in counties that

are contiguous to a designated county. Between 2012 and 2019, Walton County has been included in the following five USDA disaster declarations in relation to severe weather as indicated in Table 3-5-8.4.

Table 3-5-8.4. Severe Weather-related USDA Disaster Declarations 2012 to 2019 for Walton County[127]

Declaration	Event Date	Declaration Date	Event Description
S4461	October 10, 2018	March 20, 2019	Excessive Wind, Rain, Flooding due to Hurricane Michael
S4437	October 10, 2018 – October 11, 2018	November 15, 2018	Hurricane Michael
S4273	September 9, 2017 – September 12, 2017	January 2, 2018	Hurricane Irma
S4117	November 22, 2016 – continuing	November 30, 2016	Heat, Excessive Heat, High Temps
S3676	January 7, 2014 – January 31, 2014	April 16, 2014	Freeze and Frost

Severe weather events that have impacted Walton County between 2014 and 2019 are identified in Table 3-5-8.5. With severe weather documentation for Florida and Walton County being so extensive, not all sources have been identified or researched. Therefore, Table 3-5-8.5 may not include all events that have occurred in the County. Please see Appendices A-D for detailed information regarding impacts and losses to each municipality.

[127] USDA Disaster Designation Information. https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index

Table 3-5-8.5. Severe Weather Events in Walton County, 2014 to 2019[128]

Date(s) of Event	Event Type	FEMA Declaration Number (if applicable)	Walton County Designated?	Description
October 19, 2019	Tropical Storm Nestor	N/A	No	Tropical Storm Nestor was a minimal tropical storm with impacts mainly limited along the coast. It brought a few trees and power lines down. Rainfall amounts were limited to 1-3 inches.
March 3, 2019	Tornado	N/A	No	An EF0 tornado touched down at Eglin Airforce Base property. No structures were impacted.
October 10, 2018	Hurricane Michael	DR-4399	Yes	Hurricane Michael made landfall as a high-end Category 4.9-14 feet of peak storm surge inundation was observed. In addition, wave action caused higher total water values and this resulted in great inland damage.
October 7-8, 2018	Tropical Storm Nate	N/A	No	Tropical Storm Nate brought 2-3 feet of flood inundation causing minor to moderate coastal erosion. Minor flooding occurred at boat ramps at Santa Rosa Beach on the Choctawhatchee Bay side.
May 28, 2018	Subtropical Storm Alberto	N/A	No	Subtropical Storm Alberto downed trees and power lines, causing blocked roadways. There was also flooding in Santa Rosa Beach and Inlet Beach Park beach.
April 5, 2018	Thunderstorm	N/A	No	As a thunderstorm moved through the county it brought numerous trees and power lines down. There was a report of a brief tornado near Tyndall Air Force Base.
September 10 – 11, 2017	Tropical Storm Irma	DR-4337	Yes	Hurricane Irma brought widespread downed trees and powerlines blocked roads by trees, power outages and trees on homes.
May 20, 2017	Thunderstorm	N/A	No	As a thunderstorm moved through the county it brought numerous trees and power lines down. No reports of tornadoes.
February 7, 2017	Thunderstorm	N/A	No	As a thunderstorm moved through the county it brought numerous trees and power lines down. No reports of tornadoes.
January 22, 2016	Tornado	N/A	No	A brief EF0 tornado occurred in a rural area of Walton County. No damage reported.
November 18, 2015	Tornado	N/A	No	A brief tornado touched down at Eglin Airforce Base property. No structures were impacted.

April 19, 2015	Tornado	N/A	No	A brief EF0 tornado occurred along Hwy 81 just north of Bruce. Damage was confined to trees and power lines downed.

[128] NOAA NCEI Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

Probability of Future Events

It is estimated that Walton County will continue to experience direct and indirect impacts of severe weather annually that may induce secondary hazards such as flooding, extreme wind, coastal erosion, storm surge in coastal areas, infrastructure deterioration or failure, utility failures, power outages, water quality and supply concerns, and transportation delays, accidents, and inconveniences.

Table 3-5-8.6 below shows the probability of future occurrence statistics, as well as the annual average number of events and the percent chance of these individual severe weather hazards occurring in Walton County in future years based on the historic record.

Table 3-5-8.6. Probability of Future Occurrence of Severe Weather Events[129][130]

Hazard Type	Number of Occurrences Between 1950 and 2019	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Thunderstorms	143	2.07	0.49	2.04	204.29
Tropical Storms	15	0.22	4.67	0.21	21.43
Hurricanes	5	0.07	14.00	0.07	7.14
Tornadoes	44	0.64	1.59	0.63	62.86
Extreme Cold	0	0	0	0	0
Extreme Heat	0	0	0	0	0
TOTAL	207	3.00	0.34	2.96	100%

Vulnerability and Risk Assessment

Hazard Ranking

The impact of thunderstorms, tropical cyclones, tornadoes and extreme temperatures on life, health, and safety is dependent upon several factors including the severity of the event and whether adequate warning time was provided

[129] NOAA NCEI Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA
[130] FEMA Disaster Declarations. https://www.fema.gov/openfema-dataset-disaster-declarations-summaries-v1

to residents. It is assumed that the entire county population is exposed to thunderstorms, tropical cyclones, tornadoes and extreme temperatures hazards. Please refer to Section 3 (County Profile) for Walton County's demographics.

The probable hazard magnitude and rankings for thunderstorms, tropical cyclones, tornadoes and extreme temperatures is summarized within the below Error! Reference source not found.3-5-8.7. Refer to Section 3.4.4 regarding the methodology on quantifying hazard vulnerability.

Table 3-5-8.7. Severe Weather Vulnerability Assessment Summary

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Thunderstorms	Highly Likely	Low	High	High	High
Tropical Cyclones*	Highly Likely	High	High	Medium	High
Tornadoes	Likely	High	Medium	High	Medium
Extreme Temperatures**	Likely	Low	Low	Medium	Medium

**Note: Tropical Cyclones includes Tropical Storms and Hurricanes.*
***Note: Extreme Temperatures includes Extreme Cold and Extreme Heat.*

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

For the purposes of this LMS, the entire population of Walton County (71,375 people) is exposed to severe weather events.[131] Residents may be displaced or require temporary to long-term sheltering due to severe weather events. In addition, downed trees, damaged buildings, and debris carried by high winds can lead to injury or loss of life. Socially vulnerable populations are most susceptible, based on a number of factors including their physical and financial ability to react or respond during a hazard and the location and construction quality of their housing.

People located outdoors (i.e., recreational activities and farming) are considered most vulnerable to all severe weather hazards, especially including thunderstorms and tornadoes. This is because there is little to no warning and shelter may not be available. Moving to a lower risk location will decrease a person's vulnerability.

The high winds and air speeds of a tropical storm or hurricane often result in power outages, disruptions to transportation corridors and equipment, loss of workplace access, significant property damage, injuries and loss of life, and the need to shelter and care for individuals impacted by the events. A large amount of damage can be inflicted by trees, branches, and other objects that fall onto power lines, buildings, roads, vehicles, and, in some cases, people. Additionally, hurricanes can cause storm surge related damages along the coast or riverine reaches subject to tidal flooding.

[131] 2010 U.S. Census. 2018 American Community Survey 1-Year Estimate. https://data.census.gov/cedsci/all?q=Walton%20County,%20Florida&table=DP05&tid=ACSDP1Y2018.DP05&hidePreview=false

For Walton County, the loss associated with severe weather is primarily associated with storm-related rains, storm surge, and severe winds. The county has experienced flooding in association with hurricanes and tropical storms in the past. Please refer to Section 5.0 Flood for more information on the county's vulnerability to the flood hazard and Section 4.0 Coastal Erosion for the county's coastal vulnerability.

Damage to buildings is dependent upon several factors including wind speed and duration and building construction. Older critical facilities are vulnerable to wind damage due to the age of construction and possible poor condition, especially in the more rural and isolated areas of the County. Evaluation criteria include the age of the building (and what building codes may have been in effect at the time of construction), type of construction, and condition of the structure (i.e., how well the structure has been maintained).

Tornadoes are high-impact, low-probability hazards whose effect is dependent on its intensity and the vulnerability of development in its path. Tornado vulnerability is based on building construction and standards, the availability of shelters or safe rooms, and advanced warning capabilities. Even well-constructed buildings are vulnerable to the effects of a stronger (generally EF-2 or higher) tornado. Identifying assets at risk for tornado damage is virtually impossible because tornadoes are so unpredictable. However, it can be assumed that every structure has an equal chance of exposure to a tornado event. Therefore, all the assets of Walton County should be included.

The damages resulting from tornadoes are affected by the condition of the exposed structures, their design and construction, and the quality of the building materials. Older homes, certain construction materials, mobile homes, and poorly designed homes are very vulnerable to tornadoes. If homes are destroyed by tornadoes this would impact residents by requiring them to rebuild to current standards or relocate. Destruction of commercial buildings and infrastructure would cause employees to search for employment elsewhere, resulting in relocating to other areas outside of Walton County.

Vulnerability to tornadoes is dependent on the geographic extent and magnitude of the event. Damages from lower intensity tornadoes (EF0) can range from chimney damage to uprooted shallow trees. A significant tornado (EF2) would cause considerable damage to roofs on frame houses, complete destruction of mobile homes and large trees and utility lines snapping. A devastating tornado (EF4) would result in well-constructed houses being leveled, weak foundations blown to a distance and cars thrown.

Climate is defined not simply as average temperature and precipitation but also by the type, frequency and intensity of weather events. Both globally and at the local scale, climate change has the potential to alter the prevalence and severity of severe storm events that may be associated with increases in temperatures. While predicting changes to the impacts of severe storms under a changing climate is difficult, understanding vulnerabilities to potential changes is a critical part of estimating future climate change impacts on human health, society and the environment.[132]

[132] Environmental Protection Agency (EPA). Climate Change Indicators: Weather and Climate. https://www.epa.gov/climate-indicators/weather-climate

3.5.9 Wildfire and Urban Fire

Description

Fire is an event controlled by fuels (like trees, grasses, and shrubs), weather, and topography / terrain. Wildfire is defined as all fires that burn in natural environments.[133] Wildfires can be started by lightning or by humans in an area with vegetation. Wildfires are commonly termed forest fires, brush fires, grass fires, wildland urban interface fires (WUI), range fires, or ground fires. Wildfires do not include fires naturally or purposely ignited to manage vegetation for one or more benefits.[134]

Many Floridians live close to or within the natural ecosystem of the wildland urban interface. Fires in these areas are inevitable due to lightning or human-caused ignitions. Due to the differences in plant species, soils and water availability, wildland urban fire frequency and intensity vary among the ecosystems which are associated with the wildland urban interface.

Urban fire is defined as a fire that burn within an urban area. The National Fire Protection Association (NFPA) defines an urban city as a city with a population of more than 250,000. Common urban fire causes include intentional or electrical. Intentional fire rates and arson fire rates are the highest in large cities. Electrical equipment is a major cause of fire in older cities.[135]

Location and Extent

Many areas in Walton County, particularly those that are heavily forested or contain large tracts of brush and shrubs, are prone to fires, although the entirety of Walton County is vulnerable to wildfires and urban fires. According to the University of Florida's Institute of Food and Agricultural Sciences (IFAS) Extension, scrub pine, pine flatwood, high pine/ sandhill pine, swamp areas and hardwood hammock areas are extreme wildfire hazards to homeowners residing within the wildland urban interface of Walton County.[136]

In Florida, FDAC's Florida Forest Service is designated as the State's lead agency for wildfire mitigation. They manage over 1 million acres of state forests for multiple public uses including timber, recreation and wildlife habitat.

Fire behavior is defined as the way fuel ignites, flame develops, and fire spreads, which depend on interactions among fuel, weather, and topography. Fire behavior is one of the most important aspects of wildfires because almost all actions in response to a fire depend on how it behaves. Success in pre-suppression planning and actual suppression of wildfires is directly related to how well fire managers understand and can predict fire behavior.

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[133] National Park Service: Explore Fire in Depth. https://www.nps.gov/subjects/fire/fire-in-depth.htm

[134] Florida Enhanced State Hazard Mitigation Plan 2018

[135] The National Fire Protection Association (NFPA). https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Regional-risks/Urban-areas

[136] University of Florida, IFAS Extension. Fire in the Wildland-Urban Interface: Considering Fire in Florida's Ecosystems. 2002. https://www.srs.fs.usda.gov/factsheet/pdf/fire-considering.pdf

Potential for wildfire and its subsequent development (growth) and extent are controlled by the three principal factors of topography, fuel, and weather, described as follows:[137]

Topography **–** Topography can powerfully influence wildfire behavior. Movement of air over the terrain tends to direct a fire's course.

Fuel **–** Fuels are classified by weight or volume (fuel loading) and by type. Fuel loading is used to describe the amount of vegetative material available. If this amount doubles, energy released can also double. Each fuel type is given a burn index—an estimate of amount of potential energy that may be released, effort required to ignite a fire in a given fuel and expected flame length. Different fuels have different burn qualities, and some burn more easily than others. Grass fires release relatively little energy but can sustain very high rates of spread. According to the U.S. Forest Service (USFS), a forest stand may consist of several layers of live and dead vegetation in the understory (surface fuels), midstory (ladder fuels), and overstory (crown fuels):

- Surface fuels consist of grasses, shrubs, litter, and woody material lying on the ground. Surface fires burn low vegetation, woody debris, and litter. Under the right conditions, surface fires reduce likelihood that future wildfires will grow into crown fires.
- Ladder fuels consist of live and dead small trees and shrubs; live and dead lower branches from larger trees, needles, vines, lichens, mosses; and any other combustible biomass between the top of surface fuels and bottom of overstory tree crowns.
- Crown fuels are suspended above the ground in treetops or other vegetation and consist mostly of live and dead fine material. When historically low-density forests become overcrowded, tree crowns may merge and form a closed canopy. Tree canopies constitute the primary fuel layer in a forest crown fire.

Fire behavior is strongly influenced by these fuels.

Weather / Air Mass **–** Weather is the most important factor influencing fire behavior, but it is always changing. Air mass, defined by the National Weather Service (NWS) as a body of air covering a relatively wide area and exhibiting horizontally uniform properties, can affect wildfire through climatic factors that include temperature and relative humidity, local wind speed and direction, cloud cover, precipitation amount and duration, and stability of the atmosphere at the time of the fire.[138] Extreme weather leads to extreme events, and often a subsidence of severe weather marks the end of a wildfire's growth and the beginning of successful containment. High temperatures and low humidity can produce vigorous fire activity. Fronts and thunderstorms can produce winds that radically and suddenly change in speed and direction, causing similar changes in fire activity. The rate of spread of a fire varies directly with wind velocity. Winds may play a dominant role in directing the course of a fire. The most damaging firestorms are typically marked by high winds.[139]

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[137] FEMA's Multi-Hazard Identification and Risk Assessment (MHIRA). https://www.fema.gov/media-library/assets/documents/7251?id=2214

[138] National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS). Glossary. https://w1.weather.gov/glossary/

[139] FEMA's Multi-Hazard Identification and Risk Assessment (MHIRA). https://www.fema.gov/media-library/assets/documents/7251?id=2214

Several tools are available to estimate fire potential, extent, danger, and growth, including, but not limited to, the following:

The *Wildland Fire Assessment System (WFAS)* is an internet-based information system that provides a national view of weather and fire potential, including national fires danger, weather maps, and satellite-derived "greenness" maps.[140]

The *Fire Danger Index (FDI)* is derived by combining information on daily weather and vegetation condition and can identify areas most susceptible to fire ignition.[141]

Fuel Moisture (FM) content is quantity of water in a fuel particle expressed as a percent of oven-dry weight of the fuel particle and is an expression of cumulative effects of past and present weather events, to help evaluate the effects of current or future weather on fire potential.[142]

The *Keetch-Byram Drought Index (KBDI)* is designed for fire potential assessment and is a number representing the net effect of evapotranspiration and precipitation in producing cumulative moisture deficiency in deep duff and upper soil layers.[143]

The *Haines Index*, also known as the Lower Atmosphere Stability Index, is a fire weather index based on stability and moisture content of the lower atmosphere that measures potential for existing fires to become large fires.[144]

The *Fire Danger Rating* in Florida is established using information from the National Fire Danger Rating System (NFDRS) and considers current and antecedent weather, fuel types, and both live and dead fuel moisture. This information is provided by local station managers in each of the four regions of Florida.

Figure 3-5-9.1 shows an example of a Fire Danger Index (FDI) in Florida and the fire danger risk on a specific date. On this particular day, the Walton County's extent of fire danger was moderate.

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[140] Wildland Fire Assessment System. https://www.wfas.net/

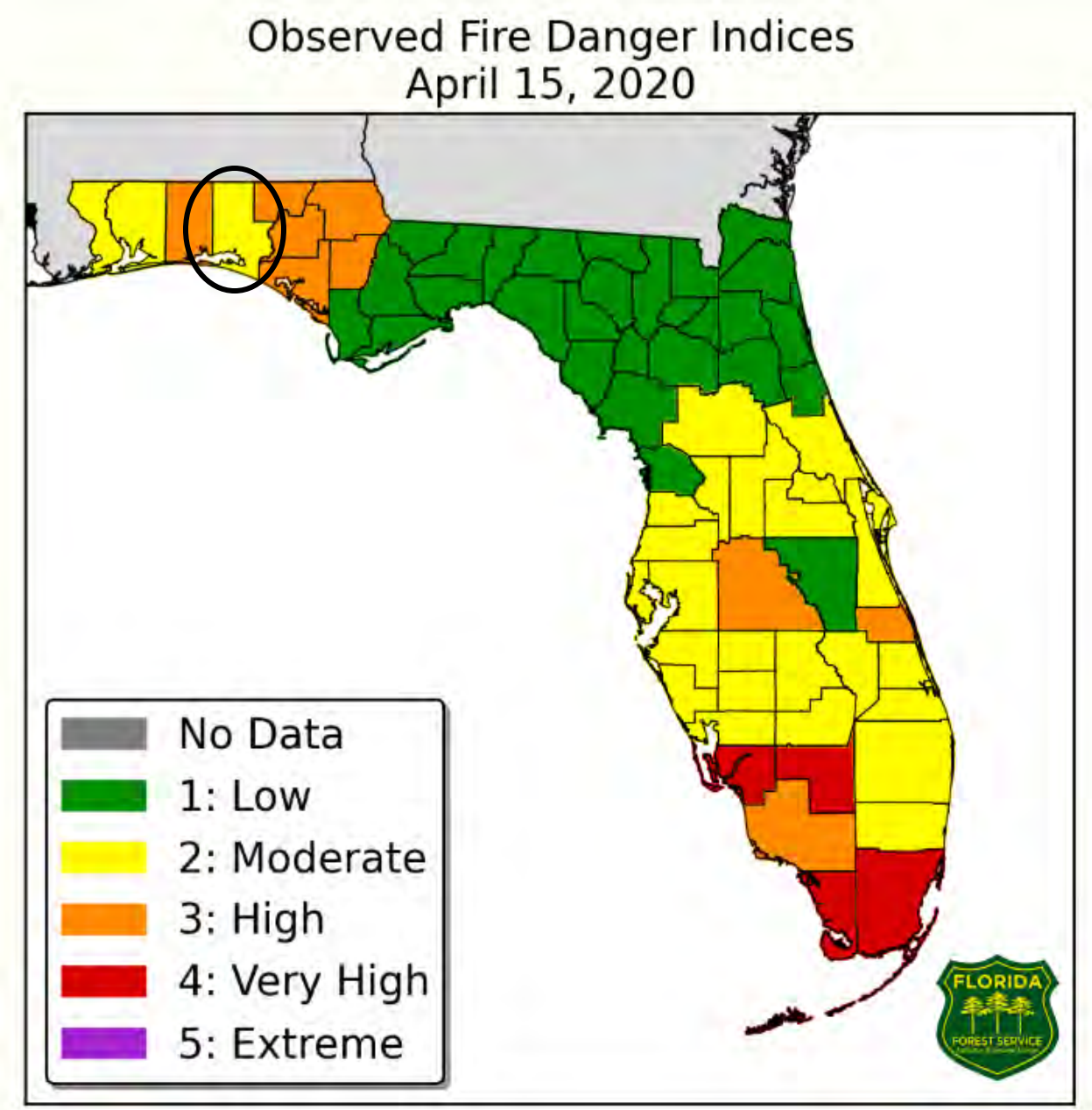
[141] FDACS. Regional Fire Danger Index. https://www.fdacs.gov/Divisions-Offices/Florida-Forest-Service/Wildland-Fire/Fire-Weather/Links-and-Information/Wildland-Fire-Danger-Index-FDI/Fire-Danger-Index-FDI-Regional-Matrices

[142] Dead Fuel Moisture. https://www.wfas.net/index.php/dead-fuel-moisture-moisture--drought-38

[143] National Wildfire Coordinating Group. Keetch-Byram Drought Index. https://www.nwcg.gov/committees/fire-danger-subcommittee/nfdrs/wfas

[144] Haines Index. https://www.wfas.net/index.php/haines-index-fire-potential--danger-34

Figure 3-5-9.1. Fire Danger Map and Fire Danger Index Report for April 15, 2020[145]



Note: Walton County is located within the black circle. On this particular day, the Walton County's fire danger was moderate.

Table 3-5-9.1 lists fire danger ratings and color codes, also used by Florida Department of Agriculture (FDACS) and the Florida Forest Service (FFS) to update its fire danger rating maps, identified later in this section. FFS organizes

[145] FDACS Fire Danger Maps. http://currentweather.freshfromflorida.com/fdi-report.html

Florida into four regional Fire Danger Indices (FDI). Walton County is located within Region 1. Figure 3-5-9.2 depicts the Fire Danger Indices (FDI) for Region 1.

Table 3-5-9.1. Description of Fire Danger Ratings in Florida[146]

Adjective Rating Class and Color Code	Class Description
Red Flag	A short-term, temporary warning, indicating presence of a dangerous combination of temperature, wind, relative humidity, fuel, or drought conditions that can contribute to new fires or rapid spread of existing fires. A Red Flag Warning can be issued at any Fire Danger level.
Extreme (Red)	Fires start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high- intensity burning will usually be faster and occur from smaller fires than in the very high fire danger class. Direct attack is rarely possible and may be dangerous, except immediately after ignition. Fires that develop headway in heavy slash or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions, the only effective and safe control action is on the flanks until the weather changes or the fuel supply lessens.
Very High (orange)	Fires start easily from all causes and, immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high-intensity characteristics such as long-distance spotting and fire whirlwinds when they burn into heavier fuels.
High (yellow)	All fine dead fuels ignite readily, and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly, and short-distance spotting is common. High-intensity burning may develop on slopes or in concentrations of fine fuels. Fires may become serious and their control difficult unless they are attacked successfully while small.
Moderate (blue)	Fires can start from most accidental causes, but except for lightning fires in some areas, the number of starts is generally low. Fires in open cured grasslands will burn briskly and spread rapidly on windy days. Timber fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel, especially draped fuel, may burn hot. Short-distance spotting may occur but is not persistent. Fires are not likely to become serious and control is relatively easy.
Low (green)	Fuels do not ignite readily from small firebrands, although a more intense heat source, such as lightning, may start fires in duff or punky wood. Fires in open cured grasslands may burn freely a few hours after rain, but woods fires spread slowly by creeping or smoldering, and burn in irregular fingers. There is little danger of spotting.

[146] Florida Department of Agriculture (FDACS) Fire Danger Index Rating Key. https://www.fdacs.gov/Divisions-Offices/Florida-Forest-Service/Wildland-Fire/Fire-Weather/Links-and-Information/Wildland-Fire-Danger-Index-FDI/Fire-Danger-Index-Rating-Key

Figure 3-5-9.2**. Florida's Region 1 Fire Danger Index (FDI) Regional Matrices**[147]

ERC	0 - 20	20.1 - 25	25.1 - 30	30.1 - 35	35.1 - 39	>39	Min RH
REGION 1	1	1	1	2	3	4	100 - 80
	1	1	2	2	3	4	79 - 52
	1	1	2	3	4	4	51 - 44
	1	2	2	3	4	4	43 - 34
	2	2	3	4	4	5	33 - 25
	2	3	3	4	5	5	< 25

1	Low	2	Moderate	3	High	4	Very High	5	Extreme

Figure 3-5-9.3 shows the burn probability within Walton County. With the majority of Walton County's landmass being heavily wooded, wildfires will continue to be routine occurrences. As the area continues its fast growth in both population and structures, the potential for urban interface wildfires will increase.

[147] FDACS Fire Danger Index Regional Matrices. https://www.fdacs.gov/Divisions-Offices/Florida-Forest-Service/Wildland-Fire/Fire-Weather/Links-and-Information/Wildland-Fire-Danger-Index-FDI/Fire-Danger-Index-FDI-Regional-Matrices

Figure 3-5-9.3. Walton County Burn Probability

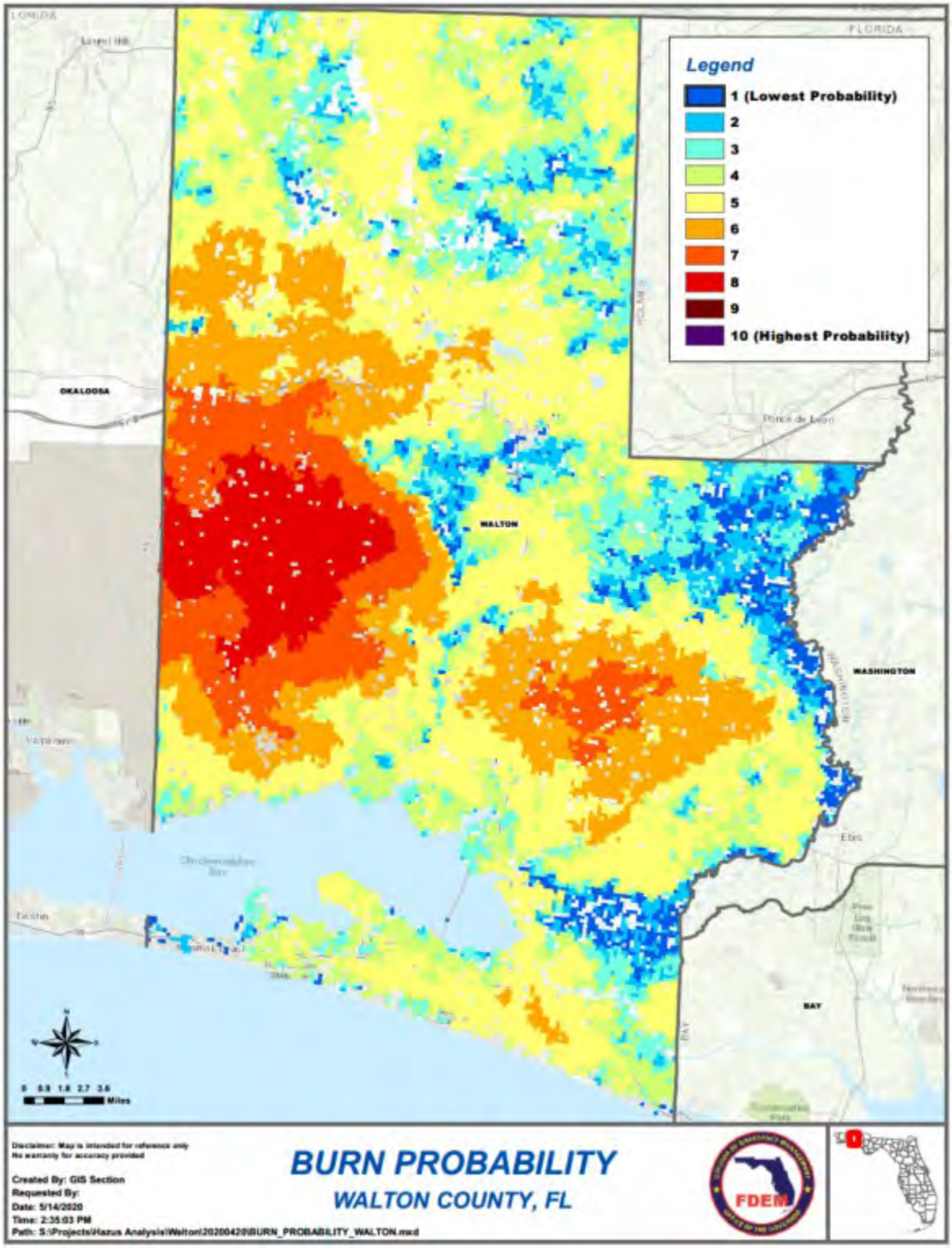
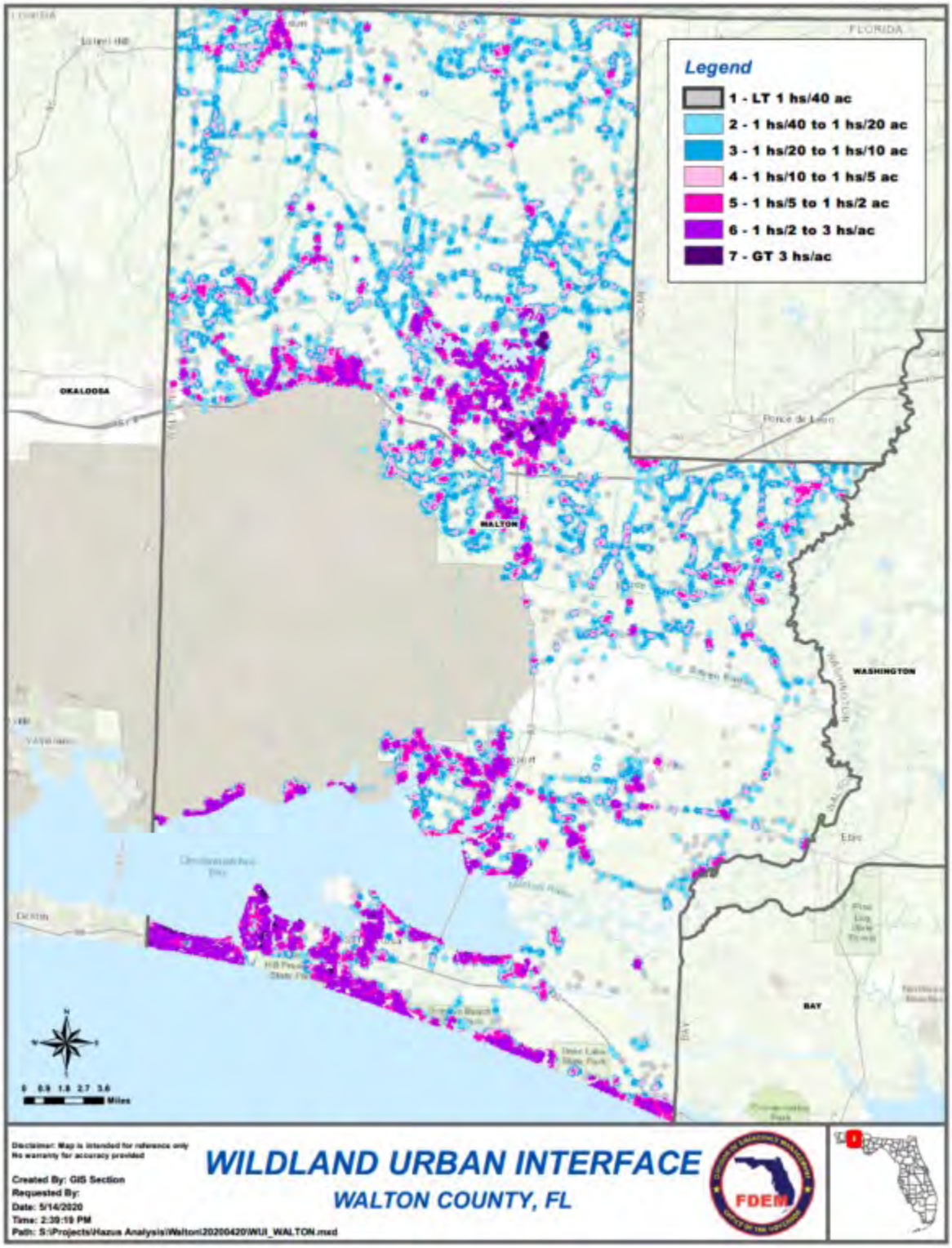


Figure 3-5-9.4 provides the Wildland Urban Interface (WUI) areas within Walton County.

Figure 3-5-9.3. Walton County Wildland Urban Interface (WUI)



Previous Occurrences

Several sources provided wildfire and urban fire information regarding previous occurrences and losses associated with fire events throughout Walton County. With so many sources reviewed for the purpose of this LMS update, loss and impact information for many events could vary depending on the source. Therefore, the accuracy of events discussed is based only on the available information identified during research for this LMS.

Between 1954 and 2019, Walton County was included in three wildfire-related major disaster (DR), emergency (EM) or fire suppression authorization (FSA) declarations. Table 3-5-9.2 depicts the wildfire-related FEMA disasters for Walton County from 1954 to 2019.

Table 3-5-9.2. Wildfire-Related FEMA Declarations for Walton County, 1954 to 2019[148]

FEMA Declaration Number	Date(s) of Event	Event Type	Details
FSA-2360	May 14, 2001	Fire	Florida Chipola River Fire Complex
EM-3139	April 15, 1999 – April 27, 1999	Fire	Florida Fire Hazard
DR-1223	May 25, 1998 – July 22, 1998	Fire	Florida Extreme Fire Hazard

Most naturally caused wildfires occur in July due to lightning strikes coinciding with thunderstorms. Human-caused fires, such as arson, debris or pile-burning, or electrical fires can occur any time of year. Table 3-5-9.3 depicts wildfire-related events in Walton County from 1950-2019 based on data collected from the NOAA NCEI database.

Table 3-5-9.3. Wildfire Events in Walton County, 1950 to 2019[149]

Date(s) of Event	Event Type	FEMA Declaration Number (if applicable)	County Designated?	Event Details
June 18, 1998	Wildfire	N/A	N/A	A 100-acre fire in Lake Pippin Estates in Okaloosa County crossed into Walton County. SR 20 was closed until containment. One firefighter was injured. Approximately 50 homes were threatened, but none were damaged.
April 17, 1999	Wildfire	N/A	N/A	200-acre wildfire destroyed one home and damaged two others as well as a boat and a number of docks in the Driftwood Estates area.

[148] FEMA Disaster Declarations. www.fema.gov/disaster

[149] NOAA NCEI Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

The USDA Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans to producers suffering losses in those counties and in counties that are contiguous to a designated county. Between 2012 and March 2020, Walton County has been included in three USDA fire- related declarations.

Table 3-5-9.4 documents historical wildfire events from 2012 to March 2020 in Walton County based on data collected from the United States Department of Agriculture Disaster database.

Table 3-5-9.4. USDA-Declared Wildfire Events in Walton County 2012- March 2020[150]

Declaration	Event Date	Declaration Date	Event Description
S4117	November 22, 2016	November 30, 2016	Drought
S3271	January 1, 2012 - Continuing	July 12, 2012	Drought
S3265	January 1, 2012 - Continuing	July 12, 2012	Drought

According to the Division of State Fire Marshal, between 2010 and 2017 (most recent data available as of April 2020), Walton County was affected by 3,108 urban fire events. Table 3-5-9.5 depicts the breakdown of urban fire- and wildfire-related events in Walton County from 2010 to 2017 based on data collected from the Division of State Fire Marshal.

Table 3-5-9.5. State Fire Marshal Urban Fire and Wildfire Events in Walton County 2010- 2017[151]

Year	Structure Fires	Vehicle Fires	Other Fires	Wildfires	Number of Acres Burned
2017	98	57	214	36	463.50
2016	92	63	271	36	369.00
2015	106	45	166	41	281.00
2014	97	52	224	26	118.40
2013	85	46	203	27	369.20
2012	90	50	221	35	125.00
2011	82	74	358	76	692.10
2010	109	52	253	58	493.00
TOTAL	759	439	1,910	335	2,911.20

[150] United States Department of Agriculture Disaster Designation Information. https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index

[151] Division of State Fire Marshal. Florida State Fire Marshal's Annual Reports. https://www.myfloridacfo.com/Division/SFM/FFIRS/ARCHIVE_annualreport.htm

Probability of Future Events

Estimating the approximate number of wildfires and urban fires to occur in Walton County is difficult to predict in a probabilistic manner. This is because a number of variable factors impact the potential for a fire to occur and because some conditions (for example, ongoing land use development patterns, location, fuel sources, and construction sites) exert increasing pressure on the wildland-urban interface (WUI) zone. Based on available data, urban fires and wildfires will continue to present a risk to Walton County. Given the numerous factors that can impact urban fire and wildfire potential, the likelihood of a fire event starting and sustaining itself should be gauged by professional fire managers daily.

The probability of occurrence, or likelihood of the event, is one parameter used for ranking hazards. Table 3-5-9.6 below shows these statistics, as well as the annual average number of events and the percent chance of these individual fire hazards occurring in Walton County in future years based on the historic record

Table 3-5-9.6. Probability of Future Occurrence of Wildfire and Urban Fire Events

Hazard Type	Number of Occurrences Between 2010 and 2017	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Wildfire	335	4.86	0.21	4.79	478.57
Urban Fire	3,108	45.04	0.02	44.40	4,440.00
TOTAL	3,443	49.90	0.02	49.19	100%

Vulnerability and Risk Assessment

Hazard Ranking

As described in the profile above, wildfire and urban fire events within the county are frequent events with annual probabilities above 1. The probable hazard magnitude for wildfire and urban fire ranges from low to high, including no deaths or injuries recorded, and less than 24-hours warning time before events. Table 3-5-9.7 outlines the hazard rankings for each of the hazard priority criteria related to wildfire and urban fire. Refer to Section 3.4.4 regarding the methodology on quantifying hazard vulnerability.

Table 3-5-9.7. Wildfire and Urban Fire Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Wildfire	Medium	Medium	Low	High	Medium
Urban Fire	High	Medium	Medium	High	Medium-High

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

Demographic change is increasing the size of the WUI, defined as the area where structures and other human development meet or intermingle with undeveloped wildland. The expansion of the WUI in recent decades has significant implications for wildfire management and impact. The WUI creates an environment in which fire can move readily between structural and vegetation fuels. Its expansion has increased the likelihood that wildfires will threaten structures and people.

Buildings without fire suppression (i.e., sprinkler systems) are more vulnerable to building fires. If a residence or commercial property were to burn to the ground this would cause significant upheaval in the community.

Many subdivisions were created before standards for emergency ingress and egress were established and may not provide adequate roadways for evacuation or access to burning structures. The difficulty for County planning departments to apply fire-safety regulations to these developments, coupled with the increasing popularity of homes in the WUI has exacerbated the wildland fire risk to these properties.

Potential losses from wildfire include human health and life of residents and responders, structures, infrastructure and natural resources. The most vulnerable populations include emergency responders and those within a short distance of the interface between the built environment and the wildland environment.

Socially vulnerable populations (e.g. the elderly and low-income populations) are particularly vulnerable to a hazard event. Smoke and air pollution from wildfires can be a severe health hazard, especially for sensitive populations, including children, the elderly, and those with respiratory and cardiovascular diseases. Smoke generated by wildfire consists of visible and invisible emissions that contain particulate matter (soot, tar, water vapor, and minerals), gases (carbon monoxide, carbon dioxide, nitrogen oxides), and toxics (formaldehyde, benzene). Emissions from wildfires depend on the type of fuel, the moisture content of the fuel, the efficiency (or temperature) of combustion, and the weather. Public health impacts associated with wildfire include difficulty in breathing, odor, and reduction in visibility.

Wildfires may also threaten the health and safety of those fighting the fires. First responders are exposed to the dangers from the initial incident and after-effects from smoke inhalation and heat stroke.

Any critical facilities located in the wildfire hazard area, including those which house vulnerable populations (schools and senior facilities) and agencies that respond to wildfire events (fire and police) are of particular concern. Critical facilities with wood-frame construction are especially vulnerable during wildfire events.

Wildfire events can have major economic impacts on a community from the initial loss of structures and the subsequent loss of revenue from destroyed business and decrease in tourism. Wildfires can cost thousands of taxpayer dollars to suppress and control and can involve hundreds of operating hours on fire apparatus and thousands of volunteer man hours from the volunteer firefighters. There are also many direct and indirect costs to local businesses that excuse volunteers from working to fight these fires.

Wildfires and urban fires are impacted by climate change. Temperatures are anticipated to increase, therefore, suitability of habitats for specific types of trees potentially changes, altering the fire regime and resulting in more frequent fire events and changes in intensity. Prolonged and more frequent heat waves have the potential to increase the likelihood of a wildfire. The increased potential combined with stronger winds can increase the County's vulnerability. If stronger winds occur near a wildfire and emergency services are unable to initially contain the event, the fast-moving fire can spread to nearby developments. This can directly impact the County's population and built

environment in the vicinity of the fire, and indirectly affect those served by, and relying upon, utility infrastructure that can be damaged by a fire.

3.5.10 Winter Storm

Description

Winter storms can bring low temperatures, freezing rain, snow flurries, hail and sleet to anywhere in Walton County. According to the National Severe Storms Laboratory (n.d.), the three basic components needed to make a winter storm include the following:

- Below freezing temperatures (cold air) in the clouds and near the ground to make snow and ice.
- Lift, something to raise the moist air to form clouds and cause precipitation, such as warm air colliding with cold air and being forced to rise over the cold dome.
- Moisture to form clouds and precipitation, such as air blowing across a large lake or the ocean.[152]

Some winter storms are large enough to immobilize an entire region while others might only affect a single community. Winter storms in Walton County typically are accompanied by low temperatures, freezing rain, snow flurries or sleet. The aftermath of a winter storm can have an impact on a community or region for days, weeks or even months; potentially causing cold temperatures, flooding, storm surge, closed and blocked roadways, downed utility lines, and power outages. For purposes of this LMS update, the winter storm hazard will include freezing rain, snow flurries, hail and sleet. Extreme cold temperatures and wind chills are associated with winter storms; however, they are discussed in Section 7.0 Severe Weather.

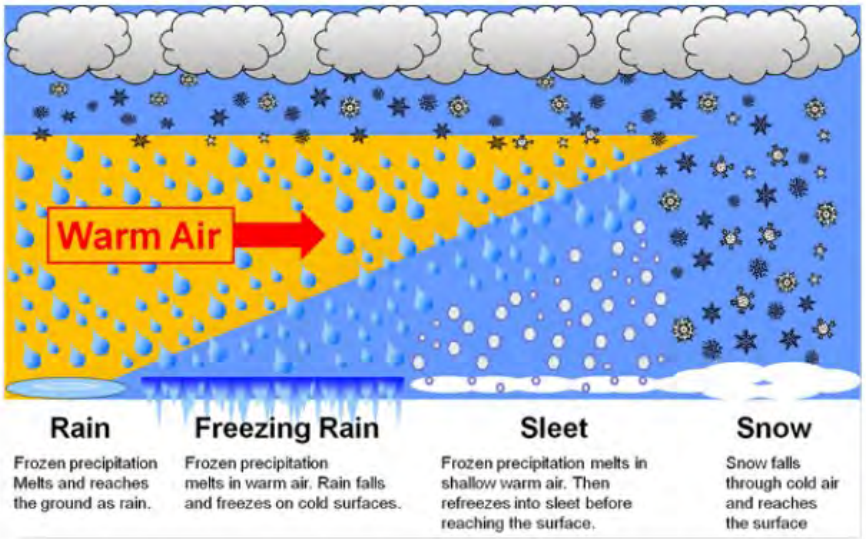
Freezing Rain

An ice storm describes those events when damaging accumulations of ice are expected during freezing rain situations. Freezing rain is rain that freezes when it hits the ground; creating a coating of ice on roads, walkways, trees and powerlines. Significant ice accumulations typically are accumulations of 0.25-inches or greater. Heavy accumulations of ice can bring down trees, power lines, utility poles, and communication towers. Ice can disrupt communications and power for days. Even small accumulations of ice can be extremely dangerous to motorists and pedestrians.[153] Figure 3-5-10.1 provides a diagram of how freezing rain is created.

[152] National Severe Storms Laboratory (NSSL). Winter Weather. https://www.nssl.noaa.gov/research/winter/

[153] NWS. Winter Weather Warnings, Watches and Advisories. https://www.weather.gov/safety/winter-ww

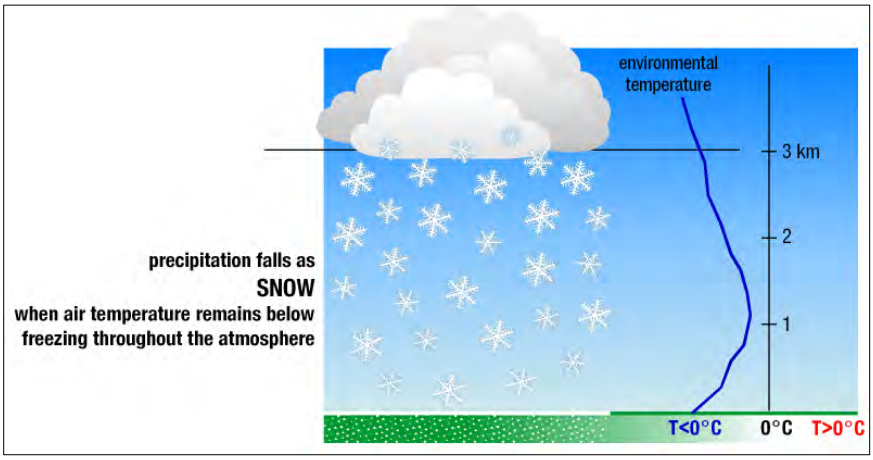
Figure 3-5-10.1. Freezing Rain Creation[154]



Snow Flurries

According to the National Snow and Ice Data Center (NSIDC), snow is precipitation in the form of ice crystals. It originates in clouds when temperatures are below the freezing point (32 °F) and water vapor in the atmosphere condenses directly into ice without going through the liquid stage. Once an ice crystal has formed, it absorbs and freezes additional water vapor from the surrounding air, growing into snow crystals or a snow pellet, which then falls to the earth. Snow falls in different forms: snowflakes, snow pellets, or sleet. Snowflakes are clusters of ice crystals that form from a cloud. Figure 3-5-10.2 depicts snow creation.

Figure 3-5-10.2. Snow Creation[155]



[154] NWS. Freezing Rain and Sleet. https://www.weather.gov/rnk/Measure_Icing

[155] NWS. Winter Weather Resources. FAQ. https://www.weather.gov/safety/winter-education

Hail

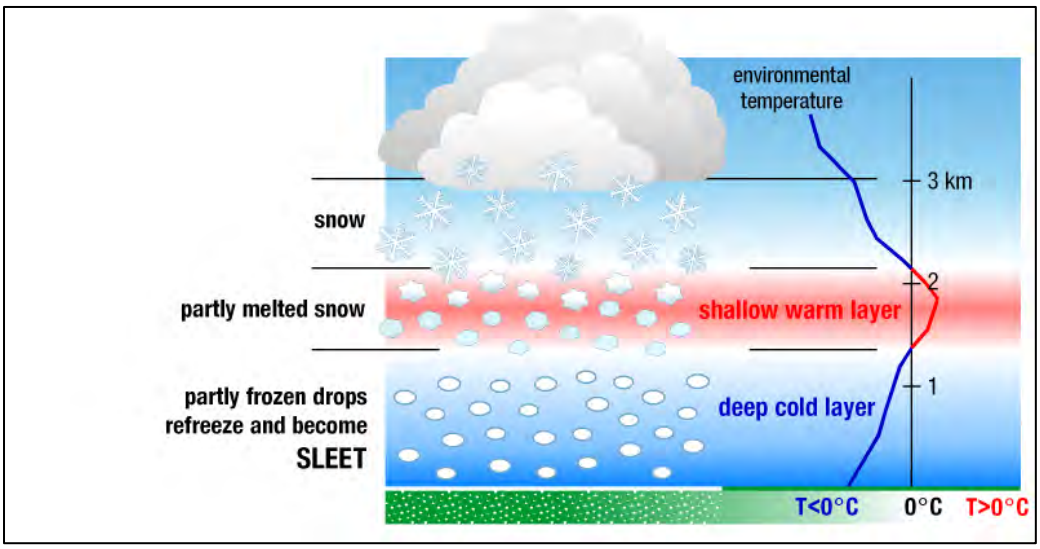
Hail is a form of precipitation that occurs when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere where they freeze into ice. Hail can cause billions of dollars of damage to structures, crops and livestock.[156] Hail occurs when updrafts in thunderstorms carry raindrops upward into extremely cold areas of the atmosphere where they freeze into ice. Some studies suggest that super-cooled water may accumulate on frozen particles near the back-side of a storm as they are pushed forward across and above the updraft by the prevailing winds near the top of the storm. Eventually, the hailstones encounter the downdraft air then fall to the ground.

The NWS classifies hail as non-severe and severe based on hail diameter size. Descriptions and diameter sizes are provided in Table 3-5-10.1.

Sleet

Snow pellets are opaque ice particles in the atmosphere. They form as ice crystals fall through super-cooled cloud droplets, which are below freezing but remain a liquid. The cloud droplets then freeze to the crystals. Sleet is made up of drops of rain that freeze into ice as they fall through colder air layers. They are usually smaller than 0.30 inches in diameter.[157] See Figure 3-5-10.3 for a diagram regarding sleet creation.

Figure 3-5-10.3. Sleet Creation[158]



Location and Extent

Winter storms occur on a regional scale and have historically occurred northern portion of the State of Florida; therefore, the entire Walton County can experience winter storm events.

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[156] NSSL. Hail. https://www.nssl.noaa.gov/research/hail/

[157] NWS. Freezing Rain and Sleet. https://www.weather.gov/rnk/Measure_Icing

[158] NWS. Winter Weather Resources. FAQ. https://www.weather.gov/safety/winter-education

Freezing Rain, Snow Flurries and Sleet

The magnitude or severity of a severe winter storm depends on several factors, including a region's climatological susceptibility to snowstorms, snowfall amounts, snowfall rates, wind speeds, temperatures, visibility, storm duration, topography, time of occurrence during the day and week (e.g., weekday versus weekend), and time of season. The extent of a severe winter storm can be classified by meteorological measurements and by evaluating its societal impacts.

According to the National Weather Service (NWS), the extent of a severe winter storm can be qualified into five main categories by event type:

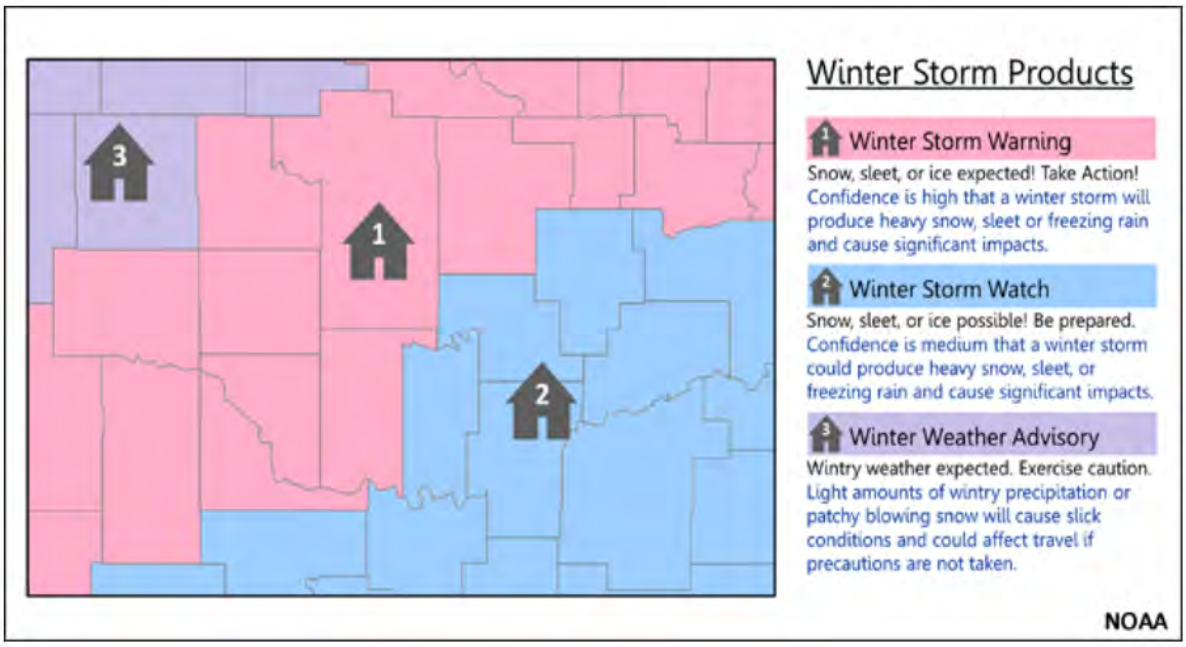
- *Heavy Snowstorm* – snowfall accumulating to 4 inches or more in 12 hours or less or snowfall accumulating to six inches or more in 24 hours or less.
- *Sleet Storm* – Significant accumulations of solid pellets that form from the freezing of raindrops or partially melted snowflakes causing slippery surfaces, posing a hazard to pedestrians and motorists.
- *Ice Storm* – Significant accumulation of rain or drizzle freezing on objects (trees, power lines, roadways) as it strikes them, causing slippery surfaces and damage from sheer weight of ice accumulations; significant ice accumulations are usually ¼" or greater.
- *Blizzard* – sustained winds or frequent gusts of 35 mph or more; considerable blowing snow with visibility frequently below one-quarter mile prevailing over an extended period.
- *Severe Blizzard* – Wind velocity of 45 mph, temperatures of 10°F or lower, a high density of blowing snow with visibility frequently measured in feet prevailing over an extended period.[159]

The NWS uses winter weather watches, warnings, and advisories to ensure that people know what to expect in the coming hours and days.[160] Below Figure 3-5-10.4 provides the winter storm products used by NWS NOAA to relay the extent of a winter storm.

[159] NOAA NWS. Glossary. https://w1.weather.gov/glossary/

[160] NWS. Winter Weather Warnings, Watches and Advisories. https://www.weather.gov/safety/winter-ww

Figure 3-5-10.4. NWS Winter Storm Products[161]



Hail

Hailstorms vary widely in terms of size, location, intensity and duration but are considered frequent occurrences throughout the Walton County planning area. It is assumed that all the jurisdictions are uniformly exposed to hail events. The NWS classifies the extent of a hailstorm as "severe" if there is a hail three-quarters of an inch in diameter (approximate size of a penny) or greater, based on radar intensity or as seen by observers. The intensity category of a hailstorm depends on hail size and the potential damage it could cause, as depicted in the following NWS hail size chart in Table 3-5-10.1.

Table 3-5-10.1. Hail Size Chart[162]

Intensity Category	Hail Diameter Size	Size Description
Hard Hail	1/4"	Pea
Potentially Damaging	1/2"	Small Marble
Significant	3/4"	Penny or Large Marble
Severe	7/8"	Nickel
Severe	1"	Quarter
Destructive	1 1/4"	Half Dollar

[161] NWS. Winter Weather Warnings, Watches and Advisories. https://www.weather.gov/safety/winter-ww
[162] NWS NOAA. Winter Storms. https://www.weather.gov/media/safety/Winter_Storms2008.pdf

Intensity Category	Hail Diameter Size	Size Description
Destructive	1 1/2”	Ping Pong Ball
Destructive	1 3/4"	Golf Ball
Destructive	2”	Hen Egg
Destructive	2 1/2"	Tennis Ball
Destructive	2 3/4"	Baseball
Super Hailstorm	3”	Teacup
Super Hailstorm	4”	Grapefruit
Super Hailstorm	4 1/2"	Softball

Previous Occurrences

Between 1954 and 2019, neither the State of Florida nor Walton County have experienced any FEMA declared winter storm-related disasters (DR) or emergencies (EM).[163]

According to the NOAA-NCEI storm events database, Walton County has been impacted by three winter weather events and 52 hail events between 1950 and 2019. Table 3-5-10.2 and Table 3-5-10.3 summarize these statistics.

Table 3-5-10.2. Winter Storm Events 1950-2019[164]

Hazard Type	Number of Occurrences Between 1950 and 2019	Total Fatalities	Total Injuries	Total Property Damage ($)	Total Crop Damage ($)
Hail	52	0	0	$0	$0
Winter Weather*	3	0	0	$133,340	$0
Total	55	0	0	$133,340	$0

*Note: * NOAA- NCEI combines freezing rain, sleet and snow (flurries) into Winter Weather.*

Generally, FEMA disasters cover a wide region of the state; therefore, they might have impacted many counties. Table 3-5-10.3 includes winter storm-related events including winter weather, hail and winter storm that occurred in Walton County between 2006 and 2019.

[163] FEMA. Disasters. www.fema.gov/disasters

[164] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

Table 3-5-10.3. Severe Winter Weather Events in Walton County 2006 to 2019[165]

Dates of Event	Event Type	FEMA Declaration Number	County Designated?	Event Details
January 17, 2018	Winter Weather	N/A	N/A	Minimal snow flurries and sleet fell in Walton County.
May 25, 2014	Hail	N/A	N/A	Reports of golf ball sized hail at the intersection of Kings Lake Road and Highway 90.
January 28, 2014	Winter Storm	N/A	N/A	This winter storm brought a wintry mix of precipitation including sleet and freezing rain. Total liquid equivalent estimates were greater than a quarter inch across the county.
February 12, 2010	Winter Weather	N/A	N/A	Rare measurable snow over inland portions of Walton county. One inch was measured at DeFuniak Springs water department. 1" to 1 1/2" of snowfall was measured across the county.
May 12, 2009	Hail	N/A	N/A	Golf ball size hail was reported in DeFuniak Springs.
April 2, 2009	Hail	N/A	N/A	Golf ball size hail was reported in DeFuniak Springs.
February 18, 2009	Hail	N/A	N/A	Baseball sized hail was reported between Glendale and Darlington.
April 14, 2006	Hail	N/A	N/A	Golf ball size hail was reported just north of Freeport.

Note: Many sources were consulted to provide an update of previous occurrences and losses; event details and loss/impact information may vary. Hail events with diameter size of 1.75" or greater between 2006 and 2019 have been summarized in the above table
FEMA Federal Emergency Management Agency
NCEI National Centers for Environmental Information
NOAA National Oceanic and Atmospheric Administration
N/A Not Applicable

The Secretary of Agriculture from the U.S. Department of Agriculture (USDA) is authorized to designate counties as disaster areas to make emergency loans available to producers suffering losses in those counties and in counties that are contiguous to a designated county. Between January 2012 and April 27, 2020, Walton County has not been included in any USDA disaster declarations in relation to winter storms.[166]

Probability of Future Events

Walton County is estimated to continue experiencing direct and indirect impacts of winter storms every few years.

Table 3-5-10.4 provides the probability of occurrences of winter storm events. However, the information used to calculate the probability of occurrences is only based on NOAA-NCEI storm events database results.

[165] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA
[166] USDA Disaster Designations. https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index

Table 3-5-10.4. Probability of Future Occurrence of Winter Storm Events[167]

Hazard Type	Number of Occurrences Between 1950 and 2018	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Hail	52	0.75	1.35	0.74	74.29
Winter Weather*	3	0.04	23.33	0.04	4.29
TOTAL	55	0.80	1.27	0.79	100%

*Note: * NOAA- NCEI combines freezing rain, sleet and snow (flurries) into Winter Weather.*

Vulnerability and Risk Assessment

Hazard Ranking

The impact of winter storms on life, health, and safety is dependent upon several factors including the severity of the event and whether adequate warning time was provided to residents. It is assumed that the entire county population is exposed to winter storms. Please refer to Section 3 County Profile for Walton County's demographics.

The probable hazard magnitude and rankings for winter storms is summarized within the below Error! Reference source not found.3-5-10.5. Refer to Section 3.4.4 regarding the methodology on quantifying hazard vulnerability.

Table 3-5-10.5. Winter Storm Vulnerability Assessment Summary

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Freezing Rain	Low	Low	Low	Medium	Low
Snow Flurries	Low	Low	Low	Medium	Low
Hail	Low	Medium	Low	High	Medium
Sleet	Low	Low	Low	Medium	Low

[167] NOAA NCEI. Storm Events Database. https://www.ncdc.noaa.gov/stormevents/choosedates.jsp?statefips=12%2CFLORIDA

All of Walton County is exposed to the winter storm hazard; therefore, all assets in the County (population, structures, critical facilities, and lifelines), as described in the County Profile (Section 3), are potentially vulnerable to a winter storm event. The following discusses Walton County's vulnerability, in a qualitative nature, to the winter weather hazard.

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

The entire population of Walton County is exposed to winter weather events (population of 71,375 people, according to the 2018 American Community Survey 1-year population estimates).[168] The homeless and elderly are considered most susceptible to this hazard; the homeless due to their lack of shelter and the elderly due to their increased risk of injuries and death from falls and overexertion or hypothermia from attempts to clear snow and ice.

All buildings in Walton County are exposed to the winter storm hazard; however, properties in poor condition may be more vulnerable to impacts. In general, structural impacts include damage to roofs and building frames rather than building content.

Full functionality of critical facilities such as police, fire and medical facilities is essential for response during and after a winter storm event. These critical facility structures are largely constructed of concrete and masonry; therefore, they should only suffer minimal, if any structural damage from winter storm events. Because power interruption could potentially occur; backup power is recommended.

Since Walton County's historic events of winter storms are minimal in length and severity, the economic vulnerability and cost of snow and ice removal and repair of roads from the freeze/thaw process would be minimal if needed at all. Historically, any accumulation of snow, sleet or freezing rain has added to approximately 1 to 1 1/2" and has melted within several hours. Since snow accumulation in Florida is not a typical occurrence, it is possible that economic impacts could also include commuter difficulties into or out of the area for work or school. The loss of power and closure of roads prevent commuters from traveling within the County.

Environmental impact of winter storms would be minimal as it relates to snow flurries, snow accumulation (if any) and freezing rain since it is likely to melt very quickly. Environmental impact of hail would also be minimal as any imprints left of large hail pieces would naturally melt the hail and dissipate.

It is uncertain how climate change will influence winter storm events. An increase in the frequency and severity of winter storms could result in an increase of snow loads on the County's building stock and infrastructure, putting each building at risk to structural damage. More frequent and severe events also will result in increased resources spent to prepare for and clean-up after an event. However, these scenarios are not as likely for Walton County, Florida. Additionally, as winter temperatures continue to rise, climate projections indicate the increase in precipitation is likely to occur during the winter months as rain. Increased rain on frozen or saturated soils can lead to increased flooding and related impacts on the County's assets.

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[168] 2010 U.S. Census. 2018 American Community Survey 1-Year Estimate. https://data.census.gov/cedsci/all?q=Walton%20County,%20Florida&table=DP05&tid=ACSDP1Y2018.DP05&hidePreview=false

3.5.11 Hazardous Materials Incidents

Description

In a hazardous materials incident, solid, liquid and/or gaseous contaminants may be released from fixed or mobile containers. Nationwide, an average of almost 6,800 hazardous materials events occur each year: 5,500 highway incidents, 1,000 railroad incidents and 270 events from other causes. The duration of a hazardous materials incident can range from hours to days.

Hazardous materials incidents can occur as a result of or in tandem with natural hazard events, such as floods, hurricanes, tornadoes and earthquakes, which in addition to causing incidents can also hinder response efforts. In the case of Hurricane Floyd in September 1999, communities along the Eastern United States were faced with flooded junkyards, disturbed cemeteries, deceased livestock, floating propane tanks, uncontrolled fertilizer spills and a variety of other environmental pollutants that caused widespread concern.

Weather conditions will directly affect how the hazard develops. The micro-meteorological effects of buildings and terrain can alter travel and duration of agents. Non-compliance with fire and building codes, as well as failure to maintain existing fire and containment features can substantially increase the damage from a hazardous materials release. In addition to the primary release, explosions and/or fires can result from a release, and contaminants can be extended beyond the initial area by persons, vehicles, water, wind and wildlife. These factors contribute to the importance of maintaining an effective response team at all times.

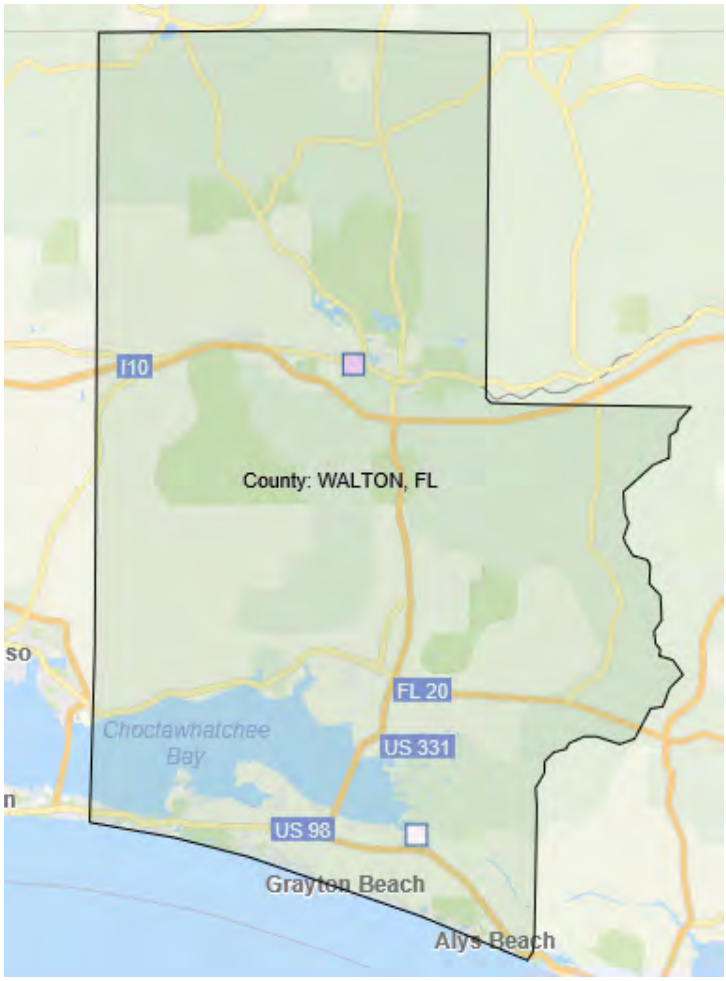
Location and Extent

A hazardous materials incident can occur anywhere in Walton County. Certain fixed facilities that manage hazardous materials must report annually regarding how much of each chemical is released to the environment and/or managed through recycling, energy recovery and treatment. This information is compiled in the Toxics Release Inventory (TRI). The TRI is a publicly available database from the federal Environmental Protection Agency (EPA) that contains information on toxic chemical releases and other waste management activities reported annually by certain industry groups and federal facilities (EPA, 2016). This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 and expanded by the Pollution Prevention Act of 1990. Each year, facilities that meet certain activity thresholds must report their releases and other waste management activities for listed toxic chemicals to EPA and to their state or tribal entity. A facility must report if it meets the following three criteria:

- The facility falls within one of the following industrial categories: manufacturing; metal mining; coal mining; electric generating facilities that combust coal and/or oil; chemical wholesale distributors; petroleum terminals and bulk storage facilities; RCRA Subtitle C treatment, storage, and disposal facilities; and solvent recovery services;
- Has 10 or more full-time employees, and
- Manufactures or processes more than 25,000 pounds or otherwise uses more than 10,000 pounds of any listed chemical during the calendar year. Persistent, bio-accumulative and toxic chemicals are subject to different thresholds of 10 pounds, 100 pounds or 0.1 grams depending on the chemical.

There are two facilities in Walton County that are listed in the TRI. Coastal, a masonry supplier in DeFuniak Springs, and Ready-Mix U.S.A in Santa Rosa Beach. Their locations are shown in Figure 3-5-11.1.

Figure 3-5-11.1. Toxic Release Inventory Facilities in Walton County[169]



In addition to the fixed facilities listed with the TRI, there is a petroleum tank farm located near the water in Freeport which is used as a distribution point for shipping fuel on the Intercoastal Waterway.

Pipelines carrying natural gas are also located in the county. Three large natural gas pipelines run east west through the county parallel to U.S. Highway 90.

The railway that runs east west through the county is used to carry chemicals as well as aggregate, agricultural products, cement, clay, construction materials, lumber, metals, and renewable energy machinery.

Shipping interests use the intercoastal waterway to carry hazardous materials such as petrochemical products, and manufactured goods. The highways that crisscross the county including Interstate 10, US 90, US 98, and US 331 also are used to transport hazardous materials.

[169] Toxic Release Inventory (TRI) Program. https://www.epa.gov/toxics-release-inventory-tri-program

Hazardous materials are widely used in public and private facilities and farms. Numerous facilities in Walton County store, use, dispose, or have the capacity and infrastructure to handle hazardous materials on a regular basis.

Hazardous materials incidences can have a substantial impact on the health and safety of the public and first responders. Such events can cause multiple deaths, shut down facilities or operations, and cause major damage to nearby properties. They can also contaminate water supplies, soils, and materials in the vicinity of the release or spill. Sheltering-in-place or evacuating the people out of the area of impact and can often protect people from the harmful effects on a hazardous materials incident.

The extent of a hazardous substance release will depend on whether it is from a fixed or mobile source, the size of impact, the toxicity and properties of the substance, duration of the release, and the environmental conditions (for example, wind and precipitation, terrain, etc.).

Hazardous substance releases can contaminate air, water, and soils, possibly resulting in death and/or injuries. Dispersion can take place rapidly when the hazardous substance is transported by water and wind. While often accidental, releases can occur as a result of human carelessness, intentional acts, or natural hazards. When caused by natural hazards, these incidents are known as secondary events. Hazardous substances can include toxic chemicals, radioactive substances, infectious substances, and hazardous wastes. Such releases can affect nearby populations and contaminate critical or sensitive environmental areas.

With a hazardous substance release, whether accidental or intentional, several potentially exacerbating or mitigating circumstances will affect its severity or impact. Mitigating conditions are precautionary measures taken in advance to reduce the impact of a release on the surrounding environment. Primary and secondary containment or shielding by sheltering-in-place measures protects people and property from the harmful effects of a hazardous substance release. Exacerbating conditions, characteristics that can enhance or magnify the effects of a hazardous substance release, include:

- Weather conditions, which affect how the hazard occurs and develops
- Micro-meteorological effects of buildings and terrain, which alters dispersion of hazardous substances on-compliance with applicable codes (such as building or fire codes)
- Maintenance failures (such as fire protection and containment features), which can substantially increase the damage to the facility itself and to surrounding buildings

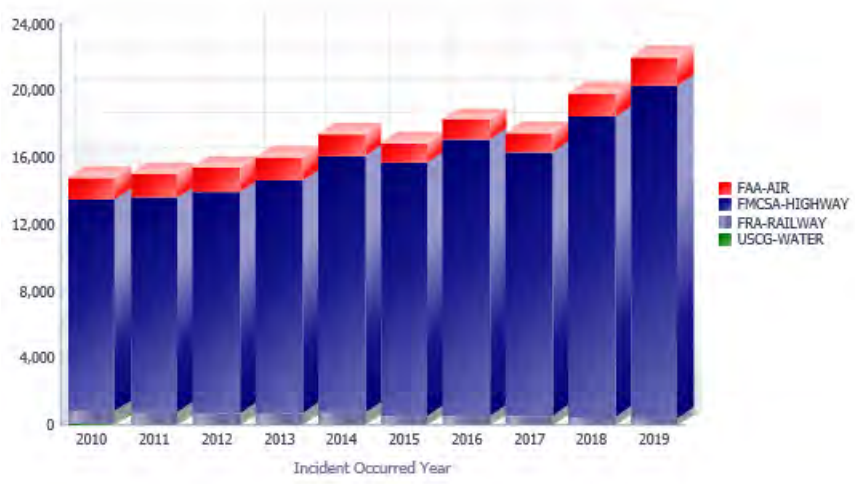
As discussed earlier, the extent of the incident is dependent not only on the circumstances described above, but also with the type of substance released and the distance and related response time for emergency response teams. The areas proximate to the releases are generally at greatest risk; however, depending on the agent, a release can travel great distances or remain present in the environment for a long period of time (i.e. centuries to millennia).

The extent of offshore hazardous substances incidents will vary based on the amount of hazardous substance spilled, the location of the spill, and the prevailing currents. The effects of an accident can have a devastating impact on the environment. An example of the worst-case scenario was the Deepwater Horizon oil spill in 2010, which affected the gulf and the coastline from Texas to Florida and was one of the worst environmental disasters in the United States.

Previous Occurrences

The Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Hazardous Material Safety, collects and compiles information regarding hazardous materials incidents. In Figure 3-5-11.2 below, the graph shows the numbers of hazardous materials incidents that have occurred in the United States over the last 10 years and whether they were being transported by air, highway, railway or water.

Figure 3-5-11.2. Hazardous Materials Incidents 2010 to 2019 by Mode of Transportation[170]



The figure shows that the hazardous materials incidents that occur across the nation are increasing. In addition, the figure also shows that the majority of incidents with hazardous materials occur on the nation's highways. In Table 3-5-11.1 below, the hazardous materials incidents that have occurred in Walton County as reported to the PHMSA are listed.

Table 3-5-11.1. Hazardous Materials Incidents as Reported to the PHMSA[171]

Incident Date	Location	Commodity	Quantity	Event Description
9/13/2013	DeFuniak Springs	Flammable Liquid	0	Private citizen reported an odor from a rail car. Hulls Environmental, a CSXT response vendor, was dispatched. Hulls found a faulty vacuum relief valve and replaced it. The leak was secured and the car was released for transport.
11/9/2016	DeFuniak Springs	Corrosive liquid	5 gallons	Loose cap on container. Repacked for return to sender.
2/17/2017	DeFuniak Springs	Corrosive liquid	0	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.
2/21/2017	DeFuniak Springs	Paint	0	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.

[170] USDOT. Pipeline and Hazardous Materials Safety Administration. https://www.phmsa.dot.gov/
[171] USDOT. Pipeline and Hazardous Materials Safety Administration. https://www.phmsa.dot.gov/

Incident Date	Location	Commodity	Quantity	Event Description
12/16/2017	DeFuniak Springs	Corrosive liquid	5 gallons	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.
1/23/2017	DeFuniak Springs	Hydrogen Peroxide and peroxyacetic acid mixtures	0	Loose cap on container. Repacked for return to sender.
3/14/2017	DeFuniak Springs	Hydrogen Peroxide and peroxyacetic acid mixtures	0	Loose cap on container. Repacked for return to sender.
6/30/2017	DeFuniak Springs	Paint	3 gallons	Package dropped in handling. Ruptured seam. Repacked for return to sender.
7/5/2017	DeFuniak Springs	Hydrogen Peroxide and peroxyacetic acid mixtures	7 gallons	Package dropped in handling. Ruptured seam. Repacked for return to sender.
8/24/2017	DeFuniak Springs	Xylenes	4 gallons	Package dropped in handling. Ruptured seam. Repacked for return to sender.
9/11/2017	DeFuniak Springs	Sodium Hydroxide	39 solid	Package dropped in handling. Ruptured seam. Repacked for return to sender.
9/21/2017	DeFuniak Springs	Xylenes	4 gallons	Package dropped in handling. Ruptured seam. Repacked for return to sender.
10/11/2017	DeFuniak Springs	Sodium Hydroxide	0	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.
1/12/2018	DeFuniak Springs	Paint	1 gallon	Package was damage
1/26/2018	DeFuniak Springs	Corrosive liquid	5 gallons	Package came off van in transport. Was taken to QA for processing.
3/5/2018	DeFuniak Springs	Petroleum products	4 gallons	Package was leaking upon delivery.
3/7/2018	DeFuniak Springs	Petroleum products	4 gallons	Package damaged upon receipt from shipper.
3/21/2018	DeFuniak Springs	Hydrogen Peroxide and peroxyacetic acid mixtures	3 gallons	Package was received damaged from trailer already leaking.
4/11/2018	DeFuniak Springs	Sodium Hydroxide	7 gallons	Plastic container received from trailer leaking.
5/16/2018	DeFuniak Springs	Hydrogen Peroxide and peroxyacetic acid mixtures	7 gallons	Package was received damaged from trailer already leaking.
6/14/2018	DeFuniak Springs	Corrosive liquid	0	The closure to a bottle was loose and the contents leaked.
6/20/2018	DeFuniak Springs	Isopropanol or Isopropyl alcohol	2 gallons	Package was received wet off trailer.
7/11/2018	DeFuniak Springs	Corrosive liquid	5 gallons	Package was received damaged off of trailer.
9/11/2018	DeFuniak Springs	Xylenes	4 gallons	Package was received damaged off of trailer.
9/13/2018	DeFuniak Springs	Isopropanol or Isopropyl alcohol	2 gallons	Driver noticed package was wet upon delivery. Returned to station.
12/12/2018	DeFuniak Springs	Ethyl alcohol	3 gallons	Package was received off trailer already damaged.
3/1/2019	DeFuniak Springs	Hydrogen Peroxide and peroxyacetic acid mixtures	7 gallons	Package was received off of trailer damaged and wet.
3/14/2019	DeFuniak Springs	Sodium Hydroxide	7 gallons	Package was received off trailer already damaged.
7/25/2019	DeFuniak Springs	Corrosive liquid	5 gallons	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.

Incident Date	Location	Commodity	Quantity	Event Description
8/16/2019	DeFuniak Springs	Smokeless powder for small arms.	55 gallons	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.
8/21/2019	DeFuniak Springs	Paint products	5 gallons	The package was dropped in shipping. Ruptured seam allowed the contents to escape. Repacked for return to shipper.
9/26/2019	DeFuniak Springs	Sodium Hydroxide	8 gallons	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.
10/25/2019	DeFuniak Springs	Sodium Hydroxide	8 gallons	The cap on a container came loose. The spill was contained, the package was repacked for return to shipper.

In addition to the incidents listed above, the Walton County Fire Rescue reports that most of the hazardous materials incidents that they have responded to have occurred on Highways I-10, 331 and US 90 where speed related incidents are most frequent. The incidents typically involve approximately ten gallons of fuel which do not require reporting. For 2019 there were 122 hazardous materials incidents on the highways in Walton County.

Probability of Future Events

Walton County is expected to continue experiencing direct and indirect impacts of hazardous materials incidents in the future. As the population and development increases this continues to be a concern for Walton County.

Table 3-5-11.2 summarizes data regarding the probability of occurrences of flood events in Walton County based on the historic record. The information used to calculate the probability of occurrences is based solely on Pipeline and Hazardous Materials Safety Administration (PHMSA) events database results.

Table 3-5-11.2. Probability of Future Hazardous Materials Incidents in Walton County[172]

Hazard Type	Number of Occurrences between 2013 - 2019	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Hazardous Materials Incidents	33	0.48	2.12	0.47	47.14%

Vulnerability and Risk Assessment

Hazard Ranking

[172] USDOT. Pipeline and Hazardous Materials Safety Administration. https://www.phmsa.dot.gov/

The priority hazard ranking process for the 2020 HIRA determined hazardous materials incidents to be a high priority hazard in Walton County. As described in the profile above, hazardous materials incidents within the county are frequent events with an annual probability of > 1.0. Hazardous materials incidents have a high range of impact, accounting for more than $150,000 in annual damages. The probable hazard magnitude for hazardous materials incidents is high. There are often injuries and deaths associated with the hazardous materials incidents as the incidents are often associated with a traffic accident where injuries and death are common. In addition, there is typically very little or no warning time before the event. Table 3-5-11.3 outlines the hazard rankings for the hazard priority criteria related to hazardous materials incidents. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-11.3. Hazardous Materials Incidents Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Hazardous Materials Incidents	High	Medium	Low	High	High

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

With multiple highway systems across the county, virtually all critical facilities have the possibility of being affected by a hazmat incident. Certain corrosive materials can damage roadways and other surfaces they contact. Populations vulnerable to a hazardous materials incident includes the entire population of the county because there is no way to determine the impact/magnitude of a hazmat incident and no way to predict where and when a hazmat incident will occur. People are vulnerable to hazmat incidents through possible injuries, deaths, effects on transportation routes, establishment of shelters, etc. Responders to hazardous materials incidents are vulnerable to injury from exposure.

Risks to the environment are high should a hazardous materials incident occur. Environmental concerns are interruption of water supply and secondary incidents such as fires and hazmat accidents (such as gas pipelines rupturing, rupture of hazmat containers at facilities, etc.). When spills do occur, whether inside or outside facilities or along roadways, operations can be vulnerable to shutdowns, lost time, and expended man-hours in response to the incident. Table 3-5-11.4 provides the annual damages from hazardous materials incidents based upon the Hazardous Materials Safety Administration (PHMSA) historic events database results.

Table 3-5-11.4. Annualized Damages from Hazardous Materials Incidents

Annualized Events	Annualized Property Damage	Annualized Crop Damages
>1.0	>$150,000	$0

3.5.12 Transportation Incidents

Description

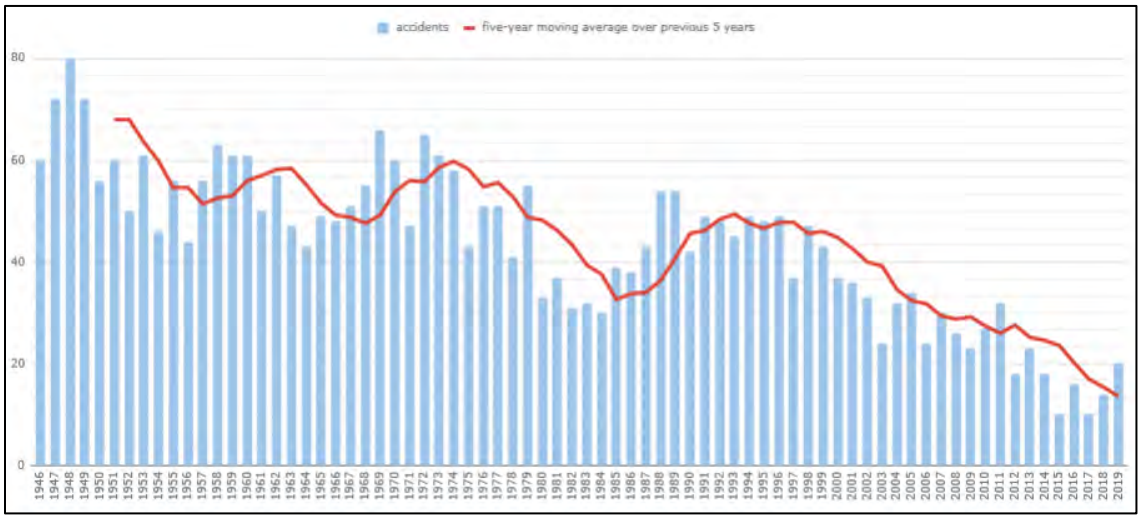
Our nation depends on transportation networks in the air, on the highways, and rail, to move people, equipment, and supplies across the country. While typically very safe, an accident is possible in any of these modes of transportation resulting in loss of life, damage to transportation infrastructure, injury or death to individuals involved in or in the vicinity of the accident, property damages as well as environmental impacts from crashes and releases of hazardous materials. In addition, an incident in one of these modes of transportation can also interrupt supply networks and hinder commerce.

Aviation Accidents

Aviation accidents can result from various causes. Approximately 50 percent of aviation accidents, the most common cause for aviation accidents, have resulted from pilot error. Mechanical failure is the second most common cause for aircraft accidents accounting for approximately 20 percent of aviation accidents. Bad weather such as fog, snow, and storms, have been attributed to approximately 10 percent of aircraft accidents. Approximately 10 percent of aviation accidents are caused by sabotage including bombings, hijackings, and shootdowns. Deliberate crashes are also included in the sabotage category as occurred during the September 11, 2001 attacks when planes were used to crash into the World Trade Center, Pentagon and the fourth flight that attackers intended fly to Washington D.C. that was thwarted by passengers and crashed into a field in Shanksville, Pennsylvania. The final 10 percent of aviation accidents have been caused by the errors of individuals other than pilots such as air traffic controllers, dispatchers, loaders, fuelers, or maintenance engineers.[173] Overall, the number of fatal aviation accidents has been on the decline since the mid-90s as shown in Figure 3-5-12.1.

[173] The Five Most Common Reasons for Airliner Disasters, The Conversation, University of Leicester, November 2, 2015

Figure 3-5-12.1. Number of Fatal Air Accidents and 5-Year Moving Average



Railroad Accidents

Florida Gulf and Atlantic Railroad, L.L.C. (FGA), a subsidiary of Rail USA, operates the single railroad through Walton County. See below Figure 3-5-12.2 depicting the railroad route through Walton County.

Figure 3-5-12.2. Railroad Route Through Walton County[174]

Rail U.S.A. purchased the line from CSX who previously owned and maintained the tracks until the sale to Rail USA in 2019. FGA operates 18 locomotives on the line. The rail line is used for transporting aggregate, agricultural products,

[174] Rail U.S.A. https://www.railusa.net/florida-gulf-atlantic-railroad/

cement, chemicals, clay, construction materials, lumber, metals, and renewable energy machinery.[175] The section of rail between New Orleans and Orlando was part of Amtrak's Sunset Limited passenger rail service that ran from Los Angeles to Orlando. However, after the line between New Orleans and Orlando was damaged from Hurricane Katrina in 2005, Amtrak shortened the passenger route to just run from Los Angeles to New Orleans. Since then the line has only been used for transporting freight. The line is maintained for freight operating at maximum speeds of 60 miles per hour.[176]

Highway Accidents

A vehicular accident can occur on any traveled roadway in Walton County. Areas of particular concern include areas of roads that are difficult to navigate, conducive to accidents, historically accident-prone, adjacent to water bodies, and pass through populated or highly traveled areas.

According to one study, Interstate 10 (I-10) that runs east to west through Walton County has been ranked as the eighth most fatal highway in the country. The stretch of 1-10 that lies within Walton County was listed as the most dangerous stretch of the highway.[177] The highways were ranked based upon how many fatal crashes occurred per vehicle miles traveled, fatalities per accident, and the percent of non-vehicle crashes. According to the study, the very high number of crashes that occurred on that stretch of I-10 was due to speeding. Law enforcement agencies have stepped up their enforcement of the highway in an effort to reduce the number of crashes.

In 2017, the Northwest Florida Daily News, in coordination with law enforcement officials in Okaloosa, Walton and Santa Rosa counties, identified the most dangerous intersections in the region. Patrol officers identified 12 intersections along U.S. Highway 98 that hold the most potential for accidents. They cited the main reasons for the accidents was due to tailgating or speeding. In addition, inattention to the road and or just negligence can cause many accidents. Spring break time will also see an increase in the number of crashes. Figure 3-5-12.3 shows the results of their findings. The approximate location of Walton county is within the red box.

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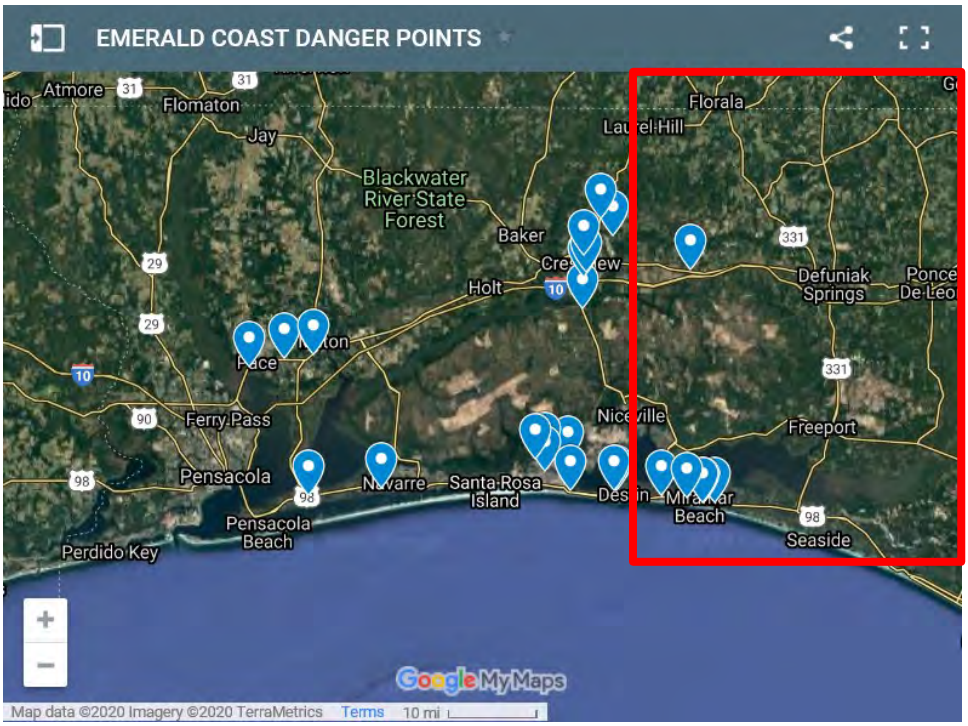
[175] Florida Gulf and Atlantic Railroad webpage, https://www.railusa.net/florida-gulf-atlantic-railroad/

[176] Report: CSX Tracks to Change Hands, The Walton Sun, November 14, 2018, https://www.waltonsun.com/news/20181114/report-csx-tracks-to-change-hands

[177] I-10 Among Nation's Most Dangerous Highways, The Walton Sun, September 13, 2018, https://www.waltonsun.com/news/20180913/i-10-among-nations-most-dangerous-highways

Figure 3-5-12.3. Most Dangerous Intersections in the Region



Location and Extent

Aviation Accidents

In Walton County there are 10 airports including one municipal public airport, seven private airports, one heliport, and one seaplane facility. The names, type of airport facility, and locations are listed below:

- Breezy Knoll Airport - 0FD5, Private Airport, DeFuniak Springs, Florida
- Cedar Lane Airport - 5FL9, Private Airport, DeFuniak Springs, Florida
- Cuchens Airport - 02FL, Private Airport, DeFuniak Springs, Florida
- DeFuniak Springs Airport - 54J, Public Airport, DeFuniak Springs, Florida
- Dugger Field Airport - 0FD3, Private Airport, Freeport, Florida
- Ellis Agricultural Field Airport - 34FL, Private Airport, Paxton, Florida
- Goose Nest Seaplane Base - FD95, Private Airport, Santa Rosa Beach, Florida
- Joy Farms Airport - 0FD9, Private Airport, DeFuniak Springs, Florida
- Pennington Heliport - FL71, Private Airport, DeFuniak Springs, Florida,
- Unicorn Place Airport - 69FD, Private Airport, DeFuniak Springs, Florida

Any portion of the county could be affected by an aviation accident: however, aircraft incidents are likely to involve smaller aircraft with few passengers. The DeFuniak Springs Airport is the only public airport in the County and accommodates private, recreational, business and corporate aviation needs. All other airports are private facilities.

There are no commercial service airports in Walton County. Most of the airport facilities operate in and around DeFuniak Springs.

Aviation accidents are often devastating incidents that may result in serious injuries or fatalities. The Federal Aviation Administration (FAA) and the National Transportation Safety Board (NTSB) are the agencies responsible for monitoring air travel and investigation accidents. Some of the most common causes of aviation accidents occur as a result of the violation of FAA and NTSB regulations. Some other causes of accidents include, but are not limited to:

- Pilot or flight crew errors – Pilot errors are the number one cause of aviation accidents and account for the highest number of fatalities. Pilots have the responsibility to transport passengers safely from one place to another and follow the FAA and NTSB regulations to better ensure passenger safety. If a pilot or flight crew makes an error, an accident may occur.
- Faulty equipment – Faulty aircraft equipment and/or mechanical features are another common cause of an aviation accident.
- Aircraft design flaws – The manufacturer of an aircraft is responsible for an aviation accident if the structural design is flawed and results in an accident.
- Failure to properly fuel or maintain the aircraft – If any regulations and safety standards set by the FAA or NTSB are violated, an accident may occur.
- Negligence of Federal Air Traffic Controllers – The failure of air traffic controllers to properly monitor the airways is another cause of aviation accident (Aviation Law News).

Railroad Accidents

The railroad track in Walton County runs east to west across the County. From the east the track runs parallel to Highway 90, goes through the Mossy Head community, continues parallel to Highway 90 and I-10, cuts through DeFuniak Springs and the Community of Argyle, then exits Walton County and enters Holmes County. Any of the facilities and residents working and living along the railroad track could be vulnerable to a railroad crash or derailment. Residents and businesses up to a mile on either side of the track could be affected in the event that a shelter-in-place or evacuation order is necessary due to a train accident.

Railway accidents can happen for a number of reasons. A train can collide with another train, a train can derail, or a train can also strike another type of vehicle such as a car or truck that crosses lowered railroad crossing arms or gets stuck or stalls on railroad tracks. In addition, railroad lines may fail due to weakening joints, erosion, and unstable rails that can cause train-car collisions and derailment. Fortunately, accidents involving trains are relatively rare. One of the largest risks associated with a train incident is a collision or derailment in combination with a hazardous materials spill. On January 6, 2005, a train collided with another in Graniteville, South Carolina, resulting in the derailment of 17 freight cars and the engines from both trains. The accident was caused by track alignment switching error. The derailment of the cars resulted in the rupture of tank cars hauling chlorine. Eight people died at the time of the accident; a ninth person died later of chlorine inhalation. Approximately 250 people were treated for chlorine exposure. Furthermore, approximately 5,400 residents within one mile of the crash site were forced to evacuate for nearly two weeks while clean-up activities were being conducted.[178]

[178] Graniteville Train Crash, Wikipedia, https://en.wikipedia.org/wiki/Graniteville_train_crash

Accidents involving trains and pedestrians, or motor vehicles are severe. For most local road officials, at-grade railroad crossings are the most common exposure to railroads. Such crossings are often a nuisance for both highway and railroad officials. Railroad crossings are a conflict point between two different transportation systems, which have different operating characteristics and different needs

Highway Accidents

There is no warning time for vehicular accidents. Contributing factors for these accidents are typically associated with the driver, vehicle and the environment. Factors associated with the driver include error, speeding, experience, and blood-alcohol level. Factors associated with the vehicle include type, condition, and center of gravity. Environmental factors include quality of the infrastructure, weather, and obstacles. Most vehicular accidents are attributed to the driver. Vehicular accidents can have severe effects on those directly involved, as well as effects to others not directly involved. Other effects may include severe traffic delays, lost sales to businesses, delayed commodity shipments, and increased insurance costs.

Previous Occurrences

Aviation Accidents

According to the National Transportation Safety Board, there have been 555 aviation accidents in the State of Florida in the past 5 years. In Walton County there have been 3 aviation accidents in the past 5 years. In each of those incidents, the crash involved a small plane that suffered a non-fatal accident upon landing.[179] The date of the incident, whether it was a private plane or airline, the location, a description of the incident and the cause is listed in Table 3-5-12.1.

Table 3-5-12.1. Previous Aviation Accidents in Walton County 2015 to 2020

Date of Incident	Private Plane/Airline	Location of Crash	Incident Description	Cause
5/19/2018	Private plane	DeFuniak Springs	Student pilot lost control during aborted landing. No fatalities	Pilot Error/Crosswinds
4/23/2016	Private plane	DeFuniak Springs	Damage to private plane upon landing. No fatalities	Pilot Error/Crosswinds
8/26/2015	Private plane	DeFuniak Springs	Damage to private plane upon landing. No fatalities	Pilot Error/Crosswinds

[179] National Safety Transportation Board, Aviation Accident Database and Synopses, https://www.ntsb.gov/_layouts/ntsb.aviation/index.aspx

Railroad Accidents

The Federal Railroad Administration investigates and collects data on railroad accidents. According to the Federal Railroad Administration, 95% of all railroad fatalities occur at highway-rail grade crossings and from pedestrians trespassing on railroad tracks.[180] Table 3-5-12.2 shows the incidences that have occurred in Walton County.

Table 3-5-12.2. Previous Railroad Accidents in Walton County 2013 to 2020

Date	Location	Description of Incident
March 18, 2017	Irbeck Drive South of Hwy 90	Driver drove into path of train. 1 person injured.[181]
May 18, 2016	Koerber Road and Hwy 90 in DeFuniak Springs	A semi-truck hauling limestone was struck by a train after becoming stuck on the train tracks in DeFuniak Springs.[182] No injuries.
September 21, 2013	South Rosebud Avenue	Driver did not stop for the railroad crossing traffic control device and was struck by train. 3 people in vehicle injured.[183]

In addition to highway-rail collisions, the over the last 10 years, the Federal Railroad Administration has investigated 34 railroad incidents in the State of Florida. Of those 34 incidents, 3 people were killed and 5 were injured. None of those incidents occurred in Walton County.

Highway Accidents

The Florida Department of Highway Safety and Motor Vehicles (FLHSMV) collects data on motor vehicle crashes. A motor vehicle is defined as any motorized vehicle not operating on rails. Crash information collected by the agency includes:[184]

- Motor vehicle crashes resulting in death or personal injury, or any indication or complaints of pain or discomfort, by any of the parties or passengers involved in the crash
- Motor vehicle crashes in which one or more of the following conditions occur:
    - Leaving the scene of a crash involving damage to an attended vehicle or property according to section 316.061(1) of the Florida Statutes
    - Driving while under the influence of alcoholic beverages, chemical substances or controlled substances, or with an unlawful blood alcohol level or breath alcohol level according to section 316.193 of the Florida Statutes

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[180] Operation Lifesaver Rail Safety Education, Track Statistics https://oli.org/track-statistics
[181] Woman Sent to Hospital after Crashing Into Train in Walton County, WJHG New website, https://www.wjhg.com/content/news/Woman-sent-to-hospital-after-crashing-her-car-into-a-train-416528473.html
[182] Best Case Scenario: None Injured After Train Hits Truck, WJHG News Website, https://www.wjhg.com/content/news/Semi-gets-stuck-on-tracks-gets-hit-by-train-379955411.html
[183] Walton County Men Injured After Train Crash, The Walton Sun Website, https://www.waltonsun.com/article/20130921/news/309219936
[184] Traffic Crash Facts, Annual Report 2019 to 2015, FLHSMV

- A vehicle was rendered inoperable to a degree that required a wrecker to remove it from the scene of the crash
- Involved a commercial motor vehicle

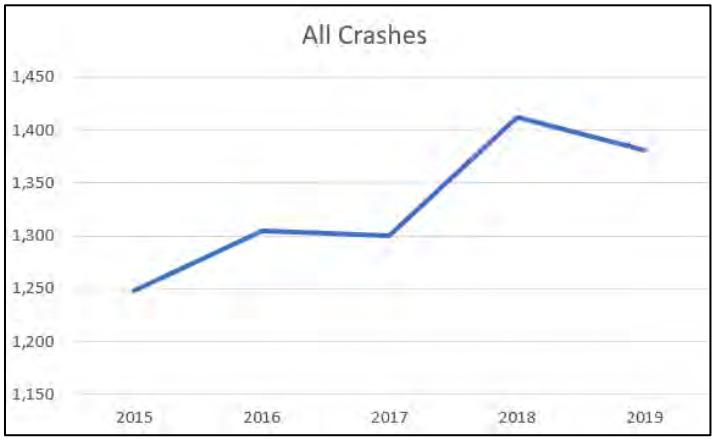
Table 3-5-12.3 tallies the number of crashes, fatalities and injuries from crashes from 2015 to 2019, based on the data collected from the FLHSMV.

Table 3-5-12.3. Total Crashes, Crash Fatalities and Crash Injuries 2015 to 2019

Year	All Crashes	Fatalities from Crashes	Injuries from Crashes
2015	1,248	9	908
2016	1,305	17	870
2017	1,300	21	748
2018	1,412	24	822
2019	1,381	19	836

When the above Table 3-5-12.3 is graphed into Figure 3-5-12.4, the number of crashes show a gradual increase 2015-2018 and then a decrease 2018-2019.

Figure 3-5-12.4. Total Crashes, Crash Fatalities and Crash Injuries 2015 to 2019



Probability of Future Events

Aviation Accidents

Aircraft crashes are somewhat likely occurrences in Walton County with 3 accidents in the past 5 years. These incidents comprise 0.54 percent of the total number of aircraft crashes in the state in the past 5 years. With 10 airports in the County, there will likely continue to be a risk of future aircraft crashes.

Railroad Accidents

Most incidences of railroad accidents in Walton County have occurred as a result of vehicles and trucks either getting stuck on the railroad track or failing to heed the warning signals and driving around railroad control devices. In addition to the chance of collisions and derailments, incidents can also occur as a result of Based upon the record of previous occurrences the probability of future railroad accidents is approximately 0.4 per year.

Highway Accidents

Highway accidents are impossible to accurately predict; however, areas prone to these hazards can be located and quantified through analysis of historical records. Based on historical records and input from the Steering Committee and Planning Committee, the probability of occurrence for highway accident in the County is considered 'frequent'.

Table 3-5-12.4 below shows these statistics, as well as the annual average number of events and the percent chance of these individual transportation incidents occurring in Walton County in future years based on the historic record.

Table 3-5-12.4. Probability of Future Occurrence of Transportation Incident Events

Hazard Type	Number of Occurrences Between 2015 and 2019	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Aviation Accidents	3	0.04	23.33	0.04	4.29%
Railroad Accidents	2	0.03	35.00	0.03	2.86%
Highway Accidents	6,646	96.32	0.01	94.94	9,494.29%
TOTAL	6,651	96.39	0.01	95.01	100%

Vulnerability and Risk Assessment

Hazard Ranking

The hazard priority ranking process for the 2020 HIRA determined transportation incidents to be of medium to high priority hazard in Walton County. Table 3-5-12.5 outlines the hazard rankings for each of the hazard priority criteria related to Flooding. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-12.5. Transportation Incident Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Aviation Accidents	Medium	Medium	Medium	High	Medium
Railroad Accidents	Low	Low	Medium	High	Medium
Highway Accidents	High	High	High	High	High

Fortunately, the aviation incidents that have occurred in Walton County have involved small planes and occurred on airport property, therefore, no individuals on the ground and other property was damaged. However, opportunity exists for individuals on the aircraft as well as individuals on the ground to be injured or killed from an aviation incident.

Environmental risks from an aviation incident include fires and hazardous materials such as fuel and oil leaking into the environment. Care would need to be taken to contain leaking fluids as well as contain fire retardant materials used to prevent a fire.

Operations to governmental operations and businesses could be severely impacted an aviation incident. Damage to property could result hindering operations. There are several critical facilities in the vicinity of the airports that if impacted, could hinder essential operations.

The railroad incidents that have occurred in Walton County in recent years have included some injuries but no deaths. However, opportunity exists for individuals in vehicles and trains to be injured or killed from train collisions and derailments. In addition, because of the potential hazard from hazardous materials spills from a collision or derailment, the risk to the environment and populations in the vicinity of the track running through Walton County is considerable. Care would need to be taken to contain any spills and to be able to warn populations to either shelter-in-place or evacuate depending on the chemical, wind direction and other considerations. Operations to governmental operations and businesses could be severely impacted in the event of a collision or derailment due to delayed shipments, business disruptions due to the train blocking traffic, or disruptions due to the public having to shelter-in-place or evacuate an affected area.

Potential losses from transportation hazards include human health and life, property and natural resources. Vehicular accidents may result in injury or death to drivers/passengers on the road, the public in the immediate vicinity and emergency services personnel. The number of people exposed depends on population density, both by day and night, and on the proportions located indoors and outdoors.

Environmental risks from a highway incident include fires and hazardous materials such as fuel and oil leaking into the environment. Care would need to be taken to contain leaking fluids as well as contain fire retardant materials used to prevent a fire.

Disruption of transportation services could lead to lost wages and substantial losses in productivity. Loss of roadway use, and public transportation services would affect commuters, employment, day-to-day operations within the County, and delivery of critical city, county and emergency services.

3.5.13 Utility Outages

Description

Utility interruption is defined as any disruption or loss of a public service which includes, but is not limited to: electrical service, potable water, and natural gas caused by disruption of power transmission caused by accident, sabotage, natural hazards, or equipment failure (also referred to as a utility failure or utility outage). A significant utility interruption is defined as any incident of a long duration, which would require the involvement of the local and/or State emergency management organizations to coordinate provision of food, water, heating, cooling, and shelter.

Widespread power outages can occur without warning or as a result of a natural disaster. Generally warning times will be short in the case of technological failure, such as a fire at a sub-station, traffic accident, human error or terrorist attack. In cases where a power failure is caused by natural hazards, greater warning time is possible. For example, high wind events such as tornados and hurricanes often cause widespread power failure and are often forecasted before they affect a community. Additionally, severe winter weather conditions such as ice storms, blizzards, and snowstorms often cause power failure. Incidents such as these often have plenty of warning time, thus utility response crews can stage resources to prepare for utility failure.

Power failure can have vast secondary impacts on the health of the community. During periods of extreme heat or extreme cold, vulnerable populations such as the elderly and medically frail can be affected and are susceptible to hypothermia or heat stroke. Additionally, power failure can lead to food spoilage, which has negative impacts on public health.

Wastewater and potable water utility interruption may occur as a result of a power failure or due to equipment failure. These critical utilities are essential to community continuity, emergency services and recovery. Their interruption of service may have cascading economic, environmental, and emergency response impacts.

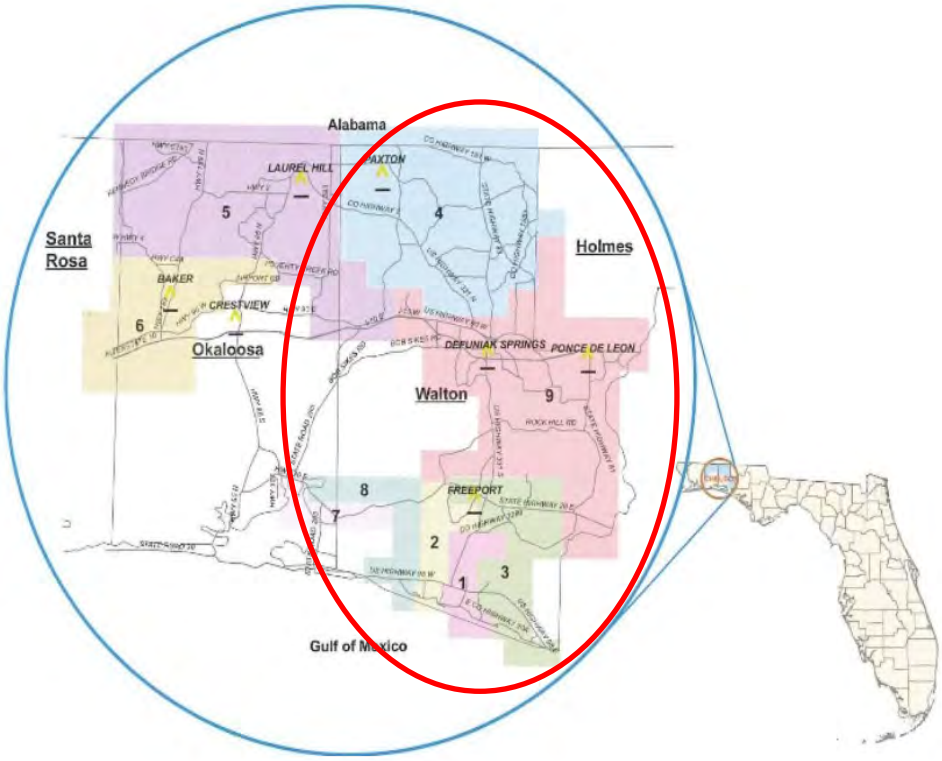
Interruption of water utilities can lead to disruption in daily life for the residents (i.e., loss of potable water) and can have also have serious impacts on firefighting and emergency response capabilities. Failures can occur from natural hazards or due to aging utility infrastructure.

Location and Extent

Utility outages can occur anywhere in Walton County but are most often are manifested in power failures as the result of a natural hazard event involving severe storm accompanied by winds or trees affecting power lines. Power in Walton County is provided through two providers. The Choctawhatchee Electric Cooperative (CHELCO) provides power for large portions of Walton County, Holmes County, Santa Rosa County, and small portions of Okaloosa County and Alabama. Figure 3-5-13.1 shows the service area for CHELCO. Gulf Power provides power to the remaining portions of Walton County and seven other counties in northwest Florida. A coverage map was not available from Gulf Power.[185]

[185] Gulf Power. https://www.gulfpower.com/about/our-company.html

Figure 3-5-13.1. Choctawhatchee Electric Cooperative Service Area[186]



Note: Walton County is located within the red circle.

Water and sewer interruptions can range from localize events to larger scale water outages. Water interruptions can occur from a direct impact from a natural hazard or a failure due to the age of the utility infrastructure. Water and sewer services throughout Walton County are provided through the private and municipally operated water providers identified below:

- City of DeFuniak Springs (provides natural gas, sanitation, sewage, and water service to the DeFuniak Springs area)
- City of Freeport (provides water and sewer services to the City of Freeport and nearby areas.)
- Mossy Head Water Works (provides water service to members within and near Mossy Head, Florida).
- Regional Utilities (water and sewer services for South Walton County)
- South Walton Utility Company, Inc (water and sewer services from Mack Bayou in Walton County to MidBay Bridge in Okaloosa County)

The extent and severity of a utility interruption depends on the cause, location, duration, and time of year. It can range from a small, localized event to a countywide power outage. Impacts from a utility failure can be significant to the

[186] CHELCO Service Area Map, http://chelco.coopwebbuilder2.com/content/service-area-map

County and its residents. Utility interruptions typically occur because of, or in combination with, aging infrastructure, other emergency or disaster incidents, such as severe weather and flooding, and can exacerbate such emergencies. It also depends on the utility distribution system affected.

Power failures lead to the inability to use electric-powered equipment, such as: lighting; heating, ventilation, and air conditioning (HVAC) and necessary equipment; communication equipment (telephones, computers, etc.); fire and security systems; small appliances such as refrigerators, sterilizers, etc.; and medical equipment. This all can lead to food spoilage, loss of heating and cooling, basement flooding due to sump pump failure, and loss of water due to well pump failure. Interruptions of water supply can lead to decreased potable water supply and also a decreased firefighting capability.

The entire population in Walton County can be affected by utility interruption events. Utility failure is particularly problematic during the heat of the summer when the inside temperatures of homes can get dangerously hot. In addition, widespread power outages during the winter months can directly impact elderly and medically frail populations. Utility interruption events have potential health impacts including injury and death. Other issues from power outages include food safety from lack of refrigeration and carbon monoxide poisoning from misuse of generators.

Power failures can cause secondary hazards and have an effect on the health of residents. One potential secondary hazard is chemical accidents that occur after power is restored to industrial facilities. Power interruptions at chemical handling plants are of particular concern because of the potential for a chemical spill during restart. Chemical spills in turn can have significant health and environmental impacts.

Another secondary hazard that can result from power failure is a loss of communications capability by first responders, which may in turn have negative impacts on public safety. Amateur radio operators may be used to supplement emergency communications during events of power outage. Power outages can also lead to instances of civil disturbance, including looting. Power failure may also lead to an increase in traffic accidents. Traffic accidents may increase because of the lack of traffic control devices such as stoplights and railroad crossing advisory signals. Power outages lasting a long duration will force law enforcement officials to man traffic control points to prevent accidents.

Previous Occurrences

The main source of data for power outages the National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information (NCEI), Storm Events Database. In the database it lists weather events and if those weather events resulted in power outages.[187] A sampling of the weather events leading to loss of power are listed in Table 3-5-13.1 below.

Table 3-5-13.1 shows that severe weather can result in power outages. In addition, technological failures and aging infrastructure can also result in loss of power as well as other utilities. Please note that not all events that have occurred in the County are included due to the extent of documentation and the fact that not all sources may have been identified or researched. Loss and impact information could vary depending on the source.

[187] NOAA NCEI Storm Events Database, https://www.ncdc.noaa.gov/stormevents/

Table 3-5-13.1. Historical Utility Outage Events in Walton County 2015 to 2019[188]

Date	Location of Outage	Cause
April 19, 2015	Gulf Pines	Severe thunderstorms and wind
April 25, 2015	DeFuniak Springs and Paxton	Severe thunderstorms and wind
June 13, 2015	Redbay	Severe thunderstorms and wind
July 5, 2015	Freeport	Severe thunderstorms and wind
December 22, 2015	Alpine Heights	Severe thunderstorms and wind
June 17, 2016	DeFuniak Springs	Severe thunderstorms and wind
August 6, 2016	Pleasant Ridge	Severe thunderstorms and wind
January 22, 2017	DeFuniak Springs	Severe thunderstorms and wind
February 7, 2017	Countywide	Severe thunderstorms and wind
July 7, 2017	Paxton	Severe thunderstorms and wind
September 10, 2017	Countywide	Hurricane Irma
May 28, 2018	Central and south Walton County	Subtropical Storm Alberto
June 6, 2018	Freeport	Severe thunderstorms and wind
June 28, 2018	Freeport	Severe thunderstorms and wind
June 1, 2019	Rock Hill	Severe thunderstorms and wind
October 19. 2019	South Walton County	Tropical Storm Nestor

Probability of Future Events

While the probability of future utility interruption incidents in Walton County is difficult to predict, the historic record indicates that most outages have occurred as a result of severe weather. Data were not readily available on the frequency of smaller utility interruptions across the County; however, it is reasonable to assume that utility failure events of shorter duration will continue to occur in the future. In addition, future changes in climate may also impact the frequency and probability of future utility failure occurrences.

Table 3-5-13.2 Probability of Future Utility Outage Events in Walton County[189]

Hazard Type	Number of Occurrences between 2015 and 2019	Rate of Occurrence	Recurrence Interval (in years)	Probability of Event Occurring in Any Given Year	% Chance of Occurring in Any Given Year
Utility Outage	16	4.0	.31	3.20	100%

[188] NOAA NCEI Storm Events Database, https://www.ncdc.noaa.gov/stormevents/
[189] NOAA NCEI Storm Events Database, https://www.ncdc.noaa.gov/stormevents/

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined utility outage to be a medium priority hazard in Walton County. As described in the profile above, electricity outage events within the county are frequent events with an annual probability of > 1.0. Utility outage events have a low range of impact, accounting for less than $50,000 in annual damages. The probable hazard magnitude for utility outage to be medium to high, including some injuries and very little warning time before the event. Table 3-5-13.3 outlines the hazard rankings for each of the hazard priority criteria related to utility outages. Refer to Section 3.4.4 regarding the methodology on quantifying hazard vulnerability.

Table 3-5-13.3. Outage Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Utility Outage	High	Low	Low	High	Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

Individuals with medical needs are vulnerable to power failures, because medical equipment such as oxygen concentrators requires electricity to operate. The elderly and low-income populations of Walton County are also vulnerable to the effects of power failure, as power failure has the potential to expose them to extreme heat or extreme cold. During power failure events, water purification systems may not be functioning. Further, populations on private wells will not have access to potable water.

Interruptions of water supply can lead to decreased potable water supply and a decreased firefighting capability. Interruption of potable water distribution also has a considerable impact on the firefighting capabilities of many fire departments within Walton County. Walton County's fire departments rely on the pressurized water system that supplies the fire hydrant connections for fire suppression. Most of the firefighting apparatus in the County relies on these fire department connections for adequate fire suppression. Should frequent or widespread water interruption occur, there will be an increased risk for structural fire and wildfire occurrence within the County.

Individuals powering their homes with generators are subjected to carbon monoxide poisoning if proper ventilation procedures are not followed. Improperly connected portable generators are capable of 'back feeding' power lines which may cause injury or death to utility works attempting to restore power and may damage house wiring and/or generators.

Government and business operations can be extremely vulnerable to the loss of utilities. Without electricity and/or water, many operations such as restaurants, gas stations or other operations must discontinue operations unless they have use of natural gas- or diesel-powered generators to provide electricity and a back-up supply of potable water.

3.5.14 Terrorism

The following section provides the Terrorism hazard profile (hazard description, location, extent, previous occurrences, probability of future occurrences and vulnerability assessment for the Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) terrorism event and cyber terrorism hazard in Walton County.

Description

Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE)

Terrorism is defined in the Code of Federal Regulations as "The unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives."[190] A Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) terrorism event involves a potential, perceived, or actual act with chemical, biological, radiological, nuclear, or explosive materials that are, or are suspected to be, used in a deliberate or intentional way to cause harm.

The primary objectives of most terrorist groups are to:

- Gain publicity
- Stimulate loss of confidence in the government
- Attract recruits
- Get public support
- Weaken and overthrow the government

Techniques used to gain an audience for their platform include hostage-taking, product-tampering, criminal extortion, arson, sabotage, threats against individual family members, assassinations, kidnapping, explosive bombings, and armed attacks. The most likely targets of these forms of terrorism are political leaders, key military personnel, foreign missions, military facilities, corporate executives and facilities, and celebrities. Unfortunately, the risk of terrorist acts exists in Florida and cannot be ruled out for Walton County. Terrorist attacks can take a wide variety of forms, ranging from a verbal threat to sabotage to biological weapons to a bomb. The most frequently used terrorist methods include but are not limited to the following:

- Bombs, Guns, and Explosives: These are the “traditional” weapons used by terrorists worldwide. Typically, these weapons are less technically and resource demanding.
- Biological Weapons: These weapons use infectious microbes or toxins to produce illness or death in people, animals, or plants. Potential biological weapons include anthrax, botulism, smallpox, viral hemorrhagic fevers, water safety threats (for example, cholera), and food safety threats (for example, salmonella). Biological weapons are relatively difficult to cultivate and disseminate.

[190] 28 C.F.R. Section 0.85

- Chemical Weapons: Chemical weapons cause severe health reactions designed to incapacitate or cause death. There is a wide array of potential chemical agents that could be used as weapons. These agents vary in how their effects on the body, required dose, exposure mechanism, length of exposure, toxicity, origination, and form (for example, liquid, gas). Examples of chemical agents include sarin, mustard agent, VX, and cyanide. In addition to these, toxic industrial chemicals and materials can also be used as chemical weapons.
- Radiological and Nuclear Weapons: Although there has been much speculation by media and various governmental agencies regarding the potential for a terrorist to obtain fissionable material or a nuclear bomb, there are no known unclassified cases of any such organization or group actually obtaining weapons grade material. Constructing a nuclear bomb would be relatively difficult and require special resources, training, and materials.

Cyber Terrorism

Cyberterrorism is using a computer network to cause an incident that actually or imminently jeopardizes the confidentiality, integrity, or availability of computers, information or communications systems or networks, physical or virtual infrastructure controlled by computers or information systems, or information resident thereon. [191] Cyber criminals in the past several years have targeted local city and county governments to disrupt such critical functions as public works, 911 dispatch services, law enforcement, fire, emergency medical services and emergency management operations. In addition, hospitals have fallen pray to ransomware attacks that prevents hospital staff from accessing critical patient information and other data. The motivation for cyber terrorists may include:

- Personal gratification/notoriety
- Financial gain
- Disruption of target organization's operations
- State sponsored cyber terrorism by other nations wanting to do harm or steal information (e.g. weapons systems, security weaknesses, proprietary information).

Cyberterrorists have several tools they can use to attack local governments and other local critical infrastructure:[192]

- Phishing: An attempt to trick users into clicking on a malicious link or opening an e-mail attachment as a means to compromise their computer.
- Structured Query Language (SQL) Injection: An operation that injects malicious SQL commands into a website's interface to allow an actor to extract, manipulate, or delete database content.
- Distributed Denial of Service (DDoS): An attack designed to prevent users from accessing a network-connected service by sending simultaneous illegitimate requests from numerous sources, thereby overloading a network's resources.
- Telephony Denial of Service (TDoS): An attack designed to make a telephone system unavailable to the intended user by occupying all available lines with repeated automated calls.

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[191] National Cyber Incident Response Plan, December 2016

[192] Cyber Techniques and Possible Impacts of Activity Against the Emergency Services Sector, U.S Department of Homeland Security, January 3, 2019.

- Cross-site Scripting (XSS): A technique that exploits the integrity controls for an Internet application to allow for arbitrary script insertion.
- Ransomware: Malware installed on a victim's device that mounts either an extortion attack that holds the victim's data hostage or a leakware attack that threatens to publish the victim's data until a ransom is paid.

Location and Extent

While an act of terrorism, either CBRNE or Cyber terrorism could occur anywhere in Walton County, there are no historic events of it in the County.

Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE)

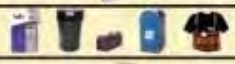
Any acts of terrorism can occur anywhere at any time of day. The National Terrorism Advisory System (NTAS) communicates information about terrorist threats by providing detailed information to the public, government agencies, first responders, airports and other transportation hubs, and the private sector. When there is a threat, an NTAS Alert will be announced by the Secretary of Homeland Security and will be shared with the public. It may include specific information about the nature of the threat, including the geographic region, mode of transportation, or critical infrastructure potentially affected, as well as steps that individuals and communities can take to protect themselves and help prevent, mitigate or respond to the threat. The alert indicates whether the threat is elevated or imminent. Elevated threats are when there is no specific information about the timing or location. Imminent threats are when it is believed the threat is impending or very soon. The alerts will be posted online and released to the news media for distribution. The United States Department of Homeland Security (DHS) will also distribute alerts through its social media channels.[193]

The effect of a terrorism event can vary depending on the type of attack and the magnitude of the event or events. A terrorism event can cause public fear regarding the use of mass transportation or leaving their homes in the event of a biological or nuclear attack. Communication systems, both public and private, can fail because of an overwhelming amount of usage or damage to its infrastructure. Healthcare facilities can become quickly inundated and must be prepared to triage injured patients, handle mass casualties, and conduct decontamination operations.

In terms of explosive attacks, Figure 3-5-14.1 summarizes the capacity of different explosives.

[193] National Terrorism Advisory System (NTAS). https://www.dhs.gov/national-terrorism-advisory-system

Figure 3-5-14.1. Capacity of Different Explosives

Threat	Threat Description	Explosive Capacity	Building Evacuation Distance	Outdoor Evacuation Distance
	Small Package/letter	1 lb	40 ft	900 ft
	Pipe Bomb	5 lb	70 ft	1,200 ft
	FedEx Package	10 lb	90 ft	1,080 ft
	Vest/Container Bombs	20 lb	110 ft	1,700 ft
	Parcel Package	50 lb	150 ft	1,850 ft
	Compact Car	500 lb	320 ft	1,900 ft
	Full Size Car/Minivan	1,000 lb	400 ft	2,400 ft
	Van/SUV/Pickup Truck	4,000 lb	640 ft	3,800 ft
	Delivery Truck	10,000 lb	860 ft	5,100 ft

Cyber Terrorism

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

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

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

- Low – Indicates a low risk. No unusual activity exists beyond the normal concern for known hacking activities, known viruses, or other malicious activity.
- Guarded – Indicates a general risk of increased hacking, virus, or other malicious activity. The potential exists for malicious cyber activities, but no known exploits have been identified, or known exploits have been identified but no significant impact has occurred.
- Elevated – Indicates a significant risk due to increased hacking, virus, or other malicious activity which compromises systems or diminishes service. At this level, there is known vulnerabilities that are being exploited with a moderate level of damage or disruption, or the potential for significant damage or disruption is high.

- High - Indicates a high risk of increased hacking, virus or other malicious cyber activity which targets or compromises core infrastructure, causes multiple service outages, multiple system compromises or compromises critical infrastructure. At this level, vulnerabilities are being exploited with a high level of damage or disruption, or the potential for severe damage or disruption is high.
- Severe - Indicates a severe risk of hacking, virus or other malicious activity resulting in wide-spread outages and/or significantly destructive compromises to systems with no known remedy or debilitates one or more critical infrastructure sectors. At this level, vulnerabilities are being exploited with a severe level or wide-spread level of damage or disruption of Critical Infrastructure Assets.[194]

Previous Occurrences

Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE)

There have been no occurrences of terrorism in Walton County. There have been a few incidences of bomb threats, but none that have involved an actual weapon of mass destruction device.

In Florida, the June 12, 2016 Pulse nightclub shooting in Orlando, Florida was a terrorist related incident that resulted in 49 dead and 53 injured. In the U.S. there have been several terrorist incidents including the 1993 bombing of the World Trade Center, the 1995 bombing of the Alfred P. Murrah Building in Oklahoma City, the September 11, 2001 (9/11) attacks, the 2001 anthrax attacks, and the 2013 Boston Marathon bombing. In the United States, most terrorist incidents have involved small extremist groups using terrorism to further a designated objective or obtain publicity for a cause. Bombings have been the most frequent method of attack in the United States although vehicle attacks and active shooter incidents are becoming used more and more as terrorist incidents. More information about active shooter incidents can be found in Section 14.0 Workplace and School Violence of this plan.

Cyber Terrorism

There have been no occurrences of cyberterrorism in Walton County, however, there have been occurrences in Florida and other parts of the U.S. In the City of Riviera Beach, Florida, in 2019 the city council paid $600,000 in ransom after the city's website, email accounts, phone system, and water billing system was attacked.[195] The attack was initiated after an employee opened a link in an email. In Stuart, Florida, city servers were hit by a ransomware attack in April 2019. No payment was made, but some police evidence, stored on the network, was lost resulting in police having to drop cases against suspected drug dealers due to a lack of evidence.[196] In December 2019, the St. Lucie County, Florida Sherriff's department was infected with malware. The disruption affected all network systems including payroll, however, the county had backed up data and also had malware insurance that covered the approximately $550,000 the county spent to replace and restore equipment, software and data.[197]

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

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

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

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

There have also been no FEMA disaster declarations related to a CBRNE or cyber-attack in Walton County to date.

Probability of Future Events

Even though Walton County has not experienced a direct CBRNE or Cyber Terrorism event, does not indicate that it will not occur in the future. A major terrorism hazard incident has been determined to have a low likelihood of occurrence in Walton County within the five-year planning cycle of this plan. Therefore, although some hazard characterization information is presented in the below *Vulnerability Assessment*, no further risk assessment has been performed for this hazard. Additional analyses to further characterize the risks of this hazard and the development of suitable mitigation action items will be conducted in the future based on periodic reviews of this LMS and available resources.

A cyberterrorism incident has been determined to have a medium likelihood of occurrence in Walton County within the five-year planning cycle of this plan. Additional analyses to determine the ability of County and City networks and staff to recognize and defend against such attacks would need to be addressed. The risks of this hazard and the development of suitable mitigation action items will be conducted in the future based on periodic reviews of this LMS and available resources.

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined terrorism to be a low to medium priority hazard in Walton County. As described in the profile above, terrorism events within the county are not common events, as they haven't been document. Table 3-5-14.1 outlines the hazard rankings for each of the hazard priority criteria related to terrorism. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-14.1. Terrorism Hazard Priority

Terrorism Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
CBRNE	Low	Low – High	High	High	Medium
Cyber	Medium	High	Low	High	Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

All assets within Walton County are vulnerable to being affected by a terrorist incident; however, government facilities and public areas are most vulnerable to such incidents.

In evaluating vulnerability of the population in the County, it was determined that risk/vulnerability includes the entire population of Walton County, because there is no way to determine the impact/magnitude of a terrorist incident and no way to predict where and when a terrorist incident will occur. People are vulnerable to terrorist incidents through

physical injury or disease, power outages, effects on transportation routes, establishment of shelters, effect of incident on mental state of the public, confidence of public in law enforcement support, contamination of the food supply, etc.

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

Future development throughout Walton County will take into consideration possible terrorist incidents; particularly if new facilities are built that could be potential terrorist targets.

All network equipment, data and software for government, business, and individuals within Walton County are vulnerable to being affected by a cyberterrorist incident; however, government and healthcare facility servers and networks are currently most vulnerable to such incidents.

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

- Communications
    - Next Generation 911 (NG9-1-1)
    - Computer Aided Dispatch (CAD) / Mobile Data Terminals (MDT)
    - Land Mobile Radio (LMR) / First Responder Network Authority (FirstNet)
- Law Enforcement
    - Data
    - Equipment
    - Security / Access Systems
- Fire/EMS
    - Data
    - Equipment
    - Fleet
- Medical/Public Health
    - Data
    - Durable Medical Equipment (DME)
    - Facilities
- Transit/Transportation
    - Supervisory Control and Data Acquisition (SCADA) / Original Equipment Manufacturer (OEM)
    - Information
- Utilities
    - Data
    - Incident Control System (ICS) / Supervisory Control and Data Acquisition (SCADA)
- Emergency Management
    - Data
    - Common Operating Picture (COP)
    - Alert and Warning

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

Environmental risks are low as environment damage is not the typical target of a cyberterrorism attack, however, it is possible if certain systems are accessed and either disabled or manipulated that harm could result to the environment. Environmental concerns are interruption of water or wastewater systems, damage or disruption to industrial manufacturing facilities resulting in hazardous material incidents, interruption of the power grid and fire suppression systems, etc..).

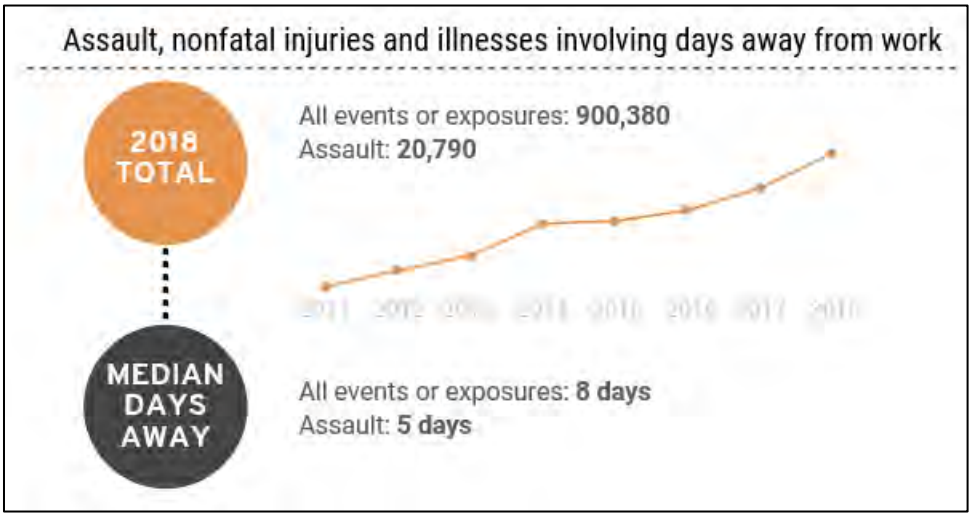
Constant vigilance on the part of staff as well as the deployment of protective systems to detect threats and safeguard data is needed to ensure data in the county is protected from cyberterrorism attempts.

3.5.15 Workplace and School Violence

Description

According to the Occupational Safety and Health Administration (OSHA), workplace violence is defined as "violence or the threat of violence against workers."[198] Workplace violence can consist of verbal threats or actual physical violence, including physical violence act that leads to death. Acts of physical violence in the workplace have been on the increase over the last several years according to the National Safety Council. The U.S. Bureau of Labor Statistics indicates that the number of annual homicides in workplaces averages yearly at about 400. In 2018 alone workplace assaults resulted in 20,790 injuries and illnesses resulting in days away from work and 453 fatalities.[199]

Figure 3-5-15.1. Nonfatal National Trends in Workplace Violence Resulting in Days Away from Work



School violence is defined by the Centers for Disease Control and Prevention (CDC) as "youth violence that occurs on school property, on the way to or from school or school sponsored events, or during a school-sponsored event. A young person can be a victim, a perpetrator, or a witness of school violence."[200] School violence can include bullying, gang violence, and assaults (with or without a weapon). While reports from the Florida Department of Education shows violence is trending down in schools,[201] recent events like the 2018 Stoneman Douglas High School shooting where

[198] Work Place Violence, OSHA Fact Sheet, 2002, https://www.osha.gov/OshDoc/data_General_Facts/factsheet-workplace-violence.pdf
[199] National Safety Council, Safety Topics, Assault at Work, https://injuryfacts.nsc.org/work/safety-topics/assault/
[200] Understanding School Violence, National Center for Injury Prevention and Control, CDC, 2016, https://www.cdc.gov/violenceprevention/pdf/School_Violence_Fact_Sheet-a.pdf
[201] Numbers Show Florida School Violence is Trending Down, Local Parents Still Concerned, WFTS ABC Action News, https://www.abcactionnews.com/news/state/numbers-show-fl-school-violence-is-trending-down-local-parents-still-concerned

17 individuals were killed and 17 wounded in Parkland, Florida, have parents and community members concerned about the security of schools.

The media coverage of active shooter incidents in recent years in both workplaces and schools across the country has raised concern of employers and school administrators. Recognizing behaviors that might result in such actions and increasing physical security measures to protect staff and students has become an increased priority. In fact, a U.S. Secret Service report had concluded that 81% of active shooters had explicitly revealed their intentions prior to the attacks.

Location and Extent

All businesses and schools within Walton County are vulnerable to being affected by an act of violence. The extent of the incident all depends on the severity of the act of violence, such as verbal threats or actual physical violence. Verbal threats and actual physical violence could include victims being scared for their lives and ultimately requiring counseling, possible injuries or deaths could also occur.

Previous Occurrences

Please note that not all events that have occurred in the County are included due to the extent of documentation and the fact that not all sources may have been identified or researched. Loss and impact information could vary depending on the source. Therefore, the accuracy of previous occurrences discussed is based only on the available information identified during research for this LMS Update.

At the time of the LMS update, there have been no recorded workplace or school violence incidents in Walton County.

Probability of Future Events

Although there are no recorded historical events of workplace or school violence occurring in Walton County, it does not conclude that it could not occur in the future. A workplace or school violence incident has a low likelihood of occurrence in Walton County within the five-year planning cycle of this plan. Therefore, although some hazard characterization information is presented below, no further risk assessment has been performed for this hazard. Additional analyses to further characterize the risks of this hazard and the development of suitable mitigation action items will be conducted in the future based on periodic reviews of this LMS and available resources.

Vulnerability and Risk Assessment

Hazard Ranking

The priority hazard ranking process for the 2020 HIRA determined flooding to be a low priority hazard in Walton County. As described in the profile above, Workplace and School Violence events within the county are not common events with an annual probability less than 1.0. Table 3-5-15.1 outlines the hazard rankings for the hazard priority criteria related to Workplace and School Violence. Please refer to Section 3.4.4 for the hazard priority ranking descriptions.

Table 3-5-15.1. Workplace and School Violence Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Workplace and School Violence	Low	Low	High	High	Medium

Vulnerability, Risk, and Impact to People, Property, the Environment, and Operations

All businesses and schools within Walton County are vulnerable to being affected by an act of violence.

In evaluating vulnerability of businesses and schools in the County, it was determined that risk/vulnerability potentially includes all businesses and schools in Walton County, because there is no way to determine the impact/magnitude of an act of violence and no way to predict where and when such an incident will occur. People are vulnerable to acts of violence through physical injury, illness, effects on business and school operations, effects and risk to law enforcement, effect of incident on mental state of the public, confidence of public in schools, law enforcement support, etc.

Risks to the environment are low in the event of a business or school violence incident unless the act is accompanied by a bomb or incendiary device in which case a fire or/and hazmat accident may result.

Future business development throughout Walton County will take into consideration possible workplace violence incidents; based upon the type of business, and the risk to staff and customers to potential acts of violence such as armed robbery. Future school development in Walton County will take into consideration measures to enhance security to protect students, faculty, staff and visitors from acts of violence.

4.0 MITIGATION STRATEGY

4.1 Guiding Principles

The following guiding principles informed the goals and objectives and are the basis of this plan that summarize what the Walton County LMS Working Group will accomplish as a result of implementing this plan.

- Maximize the use of all resources by promoting intergovernmental coordination and partnerships in the public and private sectors.
- Harden our communities against the effects of disasters through the development of new mitigation strategies and strict enforcement of current regulations that have proved effective.
- Reduce and, where possible, eliminate repetitive damage, loss of life, and property from disasters.
- Bring greater awareness throughout the community about potential hazards and the need for community preparedness.

4.2 Goals and Objectives

Goal 1

Provide the communities with the programs and the administration to protect life, property, and support community lifelines.

Objective 1.1

Enhance education strategies to improve the dissemination of information to the public regarding hazards, including the steps that can be taken to reduce their impact.

Objective 1.2

Support continuity of operations pre-, during, and post- hazard events including the support of community lifelines.

Goal 2

Improve mitigation capabilities and reduce the future expenses of the County, the municipalities, and their citizens through the support of mitigation initiatives and provide standards to protect structures in areas susceptible to damage by flooding and/or high winds.

Objective 2.1

Improve the capabilities of local government officials to reduce or eliminate hazards that cause loss of life, inflict injuries, cause property damage and to improve the protection of natural resources.

Objective 2.2

Investigate and implement a range of structural projects that will reduce the effects of natural hazards on structures throughout the county.

Goal 3

Protect the environment and natural resources of the area by controlling development activities that would damage or destroy watersheds, wetlands, coastal resources, or other natural areas which serve as natural buffers and help prevent extensive infrastructure damage.

Objective 3.1

Implement property protection measures to facilitate drainage and reduce the effects of natural hazards, including measures that reduce or eliminate repetitive loss occurrences.

Objective 3.2

Investigate and implement a range of nature-based solutions and utilize and enhance natural resources and their ability to reduce the impacts from natural hazards.

Goal 4

Coordinate in planning and provide land use regulations to limit damage to developments.

Objective 4.1

Work to improve and coordinate existing local plans, codes and regulations to reduce the impacts of natural hazards.

Objective 4.2

Restrict development in hazard prone areas to eliminate the potential of damage to structures and natural resources and adopt building codes that limit damage caused by the local disasters such as wind loads and flood elevation.

4.3 Existing Authorities, Policies and Programs

For a complete description of each jurisdiction's existing authorities, policies, programs and resources as well as their ability to expand on and improve these existing policies and programs, please see the Appendices specific to each jurisdiction.

4.4 NFIP and CRS Participation

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Thus, flood insurance premium rates are discounted to reflect the reduced flood risks. There are 10 CRS classes: Class 1 requires the most credit points and gives the largest flood insurance premium reduction; Class 10 receives no premium reduction. These discounts are applied per each CRS community and apply to all flood insurance policyholders. For CRS participating communities, flood insurance premium rates are discounted in increments of 5%; i.e., a Class 1 community would receive a 45% premium discount, while a Class 9 community would receive a 5% discount.[1]

At the time of this Plan update, only Walton County, Unincorporated and the City of Paxton participate in the CRS program. As of this Plan update process, the City of DeFuniak Springs and the City of Freeport may plan to participate in the NFIP and CRS programs in the future.

See Table 4-1-4.1 for an overview of each community's CRS class rating the date they entered the program. Participation in this program allows residents within the Special Flood Hazard Area (SFHA) to receive a discount on their flood insurance premiums for policies purchased under the NFIP. Residents within the non-SFHA also receive a discount on their policies.

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[1] FEMA Community Rating System https://www.fema.gov/national-flood-insurance-program-community-rating-system

Table 4-1-4.1. Walton County NFIP and CRS Program Participation[202]

Jurisdiction	Status	Current Effective Date	Current Class	% Discount for SFHA	% Discount for Non-SFHA
DeFuniak Springs, City of	Not Participating	N/A	N/A	N/A	N/A
Freeport, City of	Not Participating	N/A	N/A	N/A	N/A
*Paxton, City of	Participating	Information Not Available	Information Not Available	Information Not Available	Information Not Available
Walton County	Participating	10/01/2016	6	20%	10%

Note: Not all information was available at the time of this Plan Update.

Continued NFIP Participation

Walton County plans to continue their NFIP participation by complying with and practicing the following protocols:

- Maintain the County's Flood Prevention Ordinance
- Continue to review development orders
- Continue to inspect buildings for compliance
- Continue to review Substantial Damage and Improvement Projects
- Continue to be involved in any watercourse alterations
- Continue to participate in variance requests
- Continue to actively participate with FEMA regarding map changes
- Continue to participate in public outreach projects

4.5 Update of Prior Mitigation Projects

An update of prior mitigation projects was performed by the LMS Working Group. The LMS Group made a determination whether the projects had been completed. If they had not been completed a determination was made whether to delete the project, defer the project until a later time, or to carry over the project into the next mitigation planning period. Table 5-1-2.2 lists the status of the prior hazard mitigation projects.

[202] FEMA. CRS Eligible Communities. Effective 5/1/2020. https://www.fema.gov/media-library-data/1585322348214-91a0a8dd65609d0afb712669f1b07701/app-f_community-rating-system_508_apr2020.pdf

Table 5-1-2.2. Status of Prior Mitigation Projects

Project #	Project ID	Project Description	Project Status	Cost Per Unit	Units	Total Cost	Location + Responsible Jurisdiction
LMS-2009-00007	Walton County South Annex Storm Shutter	Install storm shutters on the Walton County South Annex	Carryover to 2020	$ 250,000.00	1	$ 250,000.00	Walton County
LMS-2009-00021	Critical Facilities Upgrade	Fixed generators for critical facilities	Complete	$ 25,000.00	13	$ 325,000.00	Walton County
LMS-2009-00022	Portable Power Generation Project	Portable emergency information devices (signs, radio info,)	Complete	$ 20,000.00	15	$ 300,000.00	Walton County
LMS-2009-00029	Well PTO	Acquire a tractor with Power Take Off (PTO) to run wells in case of emergency.	Complete	$ 40,000.00	1	$ 40,000.00	Freeport
LMS-2009-00030	Mobile Pump Acquisition	Acquire mobile pump for use during power losses	Complete	$ 25,000.00	1	$ 25,000.00	Freeport
LMS-2009-00031	Local Road Network Project	Develop a network of interconnecting roadways to take Local traffic off of major highways	Delete	$ 4,000,000.00	1	$ 4,000,000.00	Freeport

Project #	Project ID	Project Description	Project Status	Cost Per Unit	Units	Total Cost	Location + Responsible Jurisdiction
LMS-2009-00032	Freeport Sewer Project	Extend sewer system around impacted waterways to reduce the use of septic tanks	In Progress	$ 2,500,000.00	1	$ 2,500,000.00	Freeport
LMS-2009-00033	Freeport Stormwater Improvements	Install a stormwater management system on major City Thoroughfares	Carryover to 2020	$ 2,500,000.00	1	$ 2,500,000.00	Freeport
LMS-2009-00036	Potable Water Storage Tank	Additional Storage Water Tanks	Delete	$ 40,000.00	1	$ 40,000.00	Paxton
LMS-2009-00041	Northwest Florida College Storm Shutter	Shutters for Northwest Florida College, Building Two	Delete	$ 75,000.00	1	$ 75,000.00	Walton County
LMS-2009-00042	Paxton Storm Shutter Installation	Shutters for Paxton School	Delete	$ 2,500,000.00	1	$ 2,500,000.00	Walton County
LMS-2009-00047	South Walton Stormwater Utility	Create South Walton Stormwater Utility	Delete	$ 10,000,000.00	1	$ 10,000,000.00	Walton County
LMS-2009-00055	Safe Room Construction	Construction of safe rooms for fire stations (to allow fire & emergency personnel to stay on location)	Delete	$ 150,000.00	15	$ 2,250,000.00	Freeport

Project #	Project ID	Project Description	Project Status	Cost Per Unit	Units	Total Cost	Location + Responsible Jurisdiction
LMS-2009-00057	Hwy 20 & Kylea Laird Rd Intersection Improvements	Raise grade, place drains & headwall and repave intersection of Hwy 20 & Kylea Laird	Complete	$ 45,000.00	1	$ 45,000.00	Freeport
LMS-2009-00058	Hwy 20 &North Jackson Street Improvements	Raise grade, place drains & headwall and repave intersection of Hwy 20 & N Jackson	Complete	$ 45,000.00	1	$ 45,000.00	Freeport
LMS-2009-00059	CR3 3280 Bridge Replacement and Widening	CR 3280 Bridge Replacement and widening	Carryover to 2020	$ 12,000,000.00	1	$ 12,000,000.00	Walton County and HOA
LMS-2009-00062	Storm Shutter Installation	Install Storm shutters on windows	Delete	$ 7,656.00	1	$ 7,656.00	Walton County
LMS-2009-00063	Power Generation Project	Purchase NEW 150KW Back-Up generator	Delete	$ 55,295.00	1	$ 55,295.00	Walton County
LMS-2009-00069	SR81/SR 20 Realignment Project	SR 81/SR 20 Intersection realignment	Delete	$ 13,000,000.00	1	$ 13,000,000.00	Walton County
LMS-2009-00070	Long Road Improvements	Long Road Bridge & Roadway Replacement and upgrade	Carryover to 2020	$ 1,500,000.00	1	$ 1,500,000.00	Walton County
LMS-2009-00081	Paxton Water Storage Capacity Upgrade	Provide potable water for citizens	Carryover to 2020	$ 250,000.00	1	$ 250,000.00	Paxton
LMS-2009-00085	Upgrade Manholes	Sewer System Manhole Upgrade	In Progress	$ 10,000.00	60	$ 600,000.00	Paxton

Project #	Project ID	Project Description	Project Status	Cost Per Unit	Units	Total Cost	Location + Responsible Jurisdiction
LMS-2014-00001	Ragsdale Buyout / Nursery Road / Repetitive Loss Property		Deleted	N/A	N/A	N/A	Walton County
LMS-2014-00002	South Walton Master Stormwater Plan		Deleted	N/A	N/A	N/A	Walton County
LMS-2014-00003	North Walton Master Stormwater Plan		Deleted	N/A	N/A	N/A	Walton County
LMS-2014-00004	Reid's Unrecorded Subdivision / Stormwater Flooding Issues / possible elevations.		Deleted	N/A	N/A	N/A	Walton County
LMS-2014-00005	Raker's Linkside Place / stormwater flooding issues		Deleted	N/A	N/A	N/A	Walton County
LMS-2014-00006	Pines of Blue Mountain subdivision / Blue Coral Drive stormwater flooding issues / 3 homes		Deleted	N/A	N/A	N/A	Walton County
LMS-2014-00007	Johnson / CR-393 Stormwater Flooding Issue		Deleted	N/A	N/A	N/A	Walton County
LMS-2014-00008	DeFuniak Springs Outdoor Warning System		Deleted	N/A	N/A	N/A	DeFuniak Springs

4.6 Determining and Ranking New Mitigation Initiatives

The LMS Working Group selected projects based on the risk assessment of hazards of concern and the hazard mitigation goals and objectives. The responsibility for each project is designated to a specific jurisdiction, or in some cases, all of the jurisdictions. Table 5-1 lists the recommended projects. The timeframe in the table is defined as follows:

- *Short Term* = to be completed in 1 to 5 years
- *Long Term* = to be completed in greater than 5 years
- *Ongoing* = currently being funded and implemented under existing programs.

4.7 Ranking Mitigation Initiatives

The action plan must be prioritized according to a benefit/cost analysis of the proposed actions (44 CFR, Section 201.6(c)(3)(iii)). The benefits of proposed actions were weighed against estimated costs as part of the action prioritization process. The benefit/cost analysis was not of the detailed variety required by FEMA for project eligibility under various grant programs. A less formal approach was used because some actions may not be implemented for up to 10 years, and associated costs and benefits could change dramatically in that time. Therefore, a review of the relative benefit versus relative cost of each action was performed. Parameters were established for assigning subjective ratings (high, medium, and low) to the cost and benefit of these actions.

Cost ratings are defined as follows:

- *High*—Existing funding will not cover the cost of the action; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases). A High cost indicates a price of more than $100,000.
- *Medium*—The action could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the action would have to be spread over multiple years. A Medium cost indicates a price of $10,000 to $100,000.
- *Low*—The action could be funded under the existing budget. The action is part of or can be part of an ongoing existing program. A Low cost indicates a price of less than $10,000.

Benefit ratings are defined as follows:

- *High*—Action will provide an immediate reduction of risk exposure for life and property.
- *Medium*—Action will have a long-term impact on the reduction of risk exposure for life and property, or action will provide an immediate reduction in the risk exposure for property.
- *Low*—Long-term benefits of the action are difficult to quantify in the short term.

Using this approach, actions with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly.

4.8 Mitigation Initiatives

Table 5-1-5.1 contains the current Local Mitigation Strategy Initiatives for Walton County for the 2020 LMS Update. It includes a brief description of each project, its estimated cost, whether the project is eligible for federal grant funding opportunities, and which local mitigation strategy goal and objective the project meets. Each mitigation initiative listed in the table below is a new project as of this 2020 LMS Update has been strategically selected for its promising potential to contribute to Walton County's overall reduction in risk.

Table 5-1-5.1. 2020 Walton County Mitigation Initiatives

Project #	Project Description	Hazards Mitigated	Cost Per Unit ($)	Units	Total Cost ($)	Potential Funding Source	Location + Responsible Jurisdiction	Cost / Benefit Rating	Goals + Objectives Met
2020-1	Generators for Fire Stations	Tornado Severe Weather Earthquake Winter Storm Utility Outages	$ 75,000.00	12	$ 900,000.00	HMGP, PDM, FMA	Walton County	High /High	1.2, 2.1, 2.2
2020-2	Safe Rooms for Fire Stations	Tornado Severe Weather Earthquake Winter Storm	$ 150,000.00	15	$ 2,250,000.00	HMGP, PDM, FMA	Walton County	High /High	1.2, 2.1, 2.2
2020-3	Drought coordination planning between water utilities and County and City governments.	Drought	$0	1	$0	Staff Time, General Funds	Walton County	Low / Medium	1.1, 1.2, 4.1
2020-4	Reentry coordination planning between water utilities and County and City governments.	Tornado Severe Weather Earthquake Winter Storm	$0	1	$0	Staff Time, General Funds	Walton County	Low / Medium	1.1, 1.2, 4.1
2020-5	Review codes and policies for defensible space regulations to prevent wildfire damage.	Wildfire	$0	1	$0	Staff Time, General Funds	Walton County	Low / Medium	3.1, 3.2, 4.1, 4.2
2020-6	Construct hardened facility to house Police, Fire and Emergency Management.	Tornado Severe Weather Earthquake Winter Storm Utility Outages	$ 10,000,000.00	1	$ 10,000,000.00	HMGP, PDM, FMA	DeFuniak Springs	High /High	1.2, 2.1, 2.2

Project #	Project Description	Hazards Mitigated	Cost Per Unit ($)	Units	Total Cost ($)	Potential Funding Source	Location + Responsible Jurisdiction	Cost / Benefit Rating	Goals + Objectives Met
2020-7	Bypass pumps for lift stations	Tornado Severe Weather Earthquake Winter Storm Utility Outages	$ 76,000.00	28	$ 2,128,000.00	HMGP, PDM, FMA	DeFuniak Springs	High /High	1.2, 2.1, 2.2
2020-8	Receive technical assistance for participation in CRS.	Flood	$ 25,000.00	1	$ 25,000.00	General funds, PDM	DeFuniak Springs	High /High	2.1, 2.2, 3.1, 3.2
2020-9	Construct water storage tank for west side of town.	Tornado Severe Weather Earthquake Winter Storm	$ 250,000.00	1	$ 250,000.00	HMGP, PDM	Paxton	High /High	1.2, 2.1, 2.2
2020-10	Construction of storm shelter	Tornado Severe Weather Earthquake Winter Storm	$ 1,062,584.00	1	$ 1,062,584.00	HMGP, PDM, FMA	Paxton	High /High	1.2, 2.1, 2.2
2020-11	Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are located in high- or medium-risk hazard areas.	Tornado Severe Weather Earthquake Winter Storm Flood				HMGP, PDM, FMA	All	High / High	1.2, 2.1, 2.2

Project #	Project Description	Hazards Mitigated	Cost Per Unit ($)	Units	Total Cost ($)	Potential Funding Source	Location + Responsible Jurisdiction	Cost / Benefit Rating	Goals + Objectives Met
2020-12	Integrate the Local Mitigation Strategy into other plans, ordinances and programs that dictate land use decisions in the community, including Capital Improvement Programs, Master Plans, and Strategic Plans.	All Hazards	$0	1	$0	Staff Time, General Funds	All	Low / Medium	2.1, 4.1
2020-13	Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements. • Enforce the flood damage prevention ordinance. • Participate in floodplain identification and mapping updates. • Provide public assistance/information on floodplain requirements and impacts.	Flood	$0	1	$0	Staff Time, General Funds	Walton County, Paxton	Low / Medium	1.1, 2.1, 3.1, 4.1, 4.2

Project #	Project Description	Hazards Mitigated	Cost Per Unit ($)	Units	Total Cost ($)	Potential Funding Source	Location + Responsible Jurisdiction	Cost / Benefit Rating	Goals + Objectives Met
2020-14	Develop a Community Urban Wildfire Prevention Program to educate citizens on how to reduce damages to residential property from wildfires.	Wildfire	$ 2,500.00	1	$ 2,500.00	Staff time, General Funds	Walton County	Medium / Medium	1.1, 3.1, 3.2
2020-15	Provide outreach for disease reporting	Disease Outbreak	$0	1	$0	Staff time, General Funds	Walton County Public Health	Low / Medium	1.1, 2.1
2020-16	Provide outreach for seasonal vaccination campaigns	Disease Outbreak	$0	1	$0	Staff time, General Funds	Walton County Public Health	Low / Medium	1.1, 2.1
2020-17	Provide education to farmers and ranchers in Walton County regarding agricultural diseases and pests and effective prevention and control methods.	Disease Outbreak	$0	1	$0	Staff time, General Funds	Walton County Agricultural Extension Office	Low/ High	1.1, 1.2, 3.2
2020-18	Provide outreach for workplace / school violence awareness. Possibly work with FDLE for campaign materials.	Workplace/School Violence	TBD	TBD	TBD	TBD	Walton County	TBD	1.1, 2.1
2020-19	Provide outreach for transportation incident awareness. Coordinate planning initiatives with the Florida Department of Law Enforcement, railroad and airport representatives.	Transportation Incident	TBD	TBD	TBD	TBD	Walton County	TBD	1.1, 2.1
2020-20	Work with FDEP and monitor FDEP's "Critically Eroded Beaches in Florida" publication to monitor beach erosion within the County. Work with beachfront homeowners to provide awareness.	Erosion	TBD	TBD	TBD	TBD	Walton County	TBD	1.1, 2.1

Project #	Project Description	Hazards Mitigated	Cost Per Unit ($)	Units	Total Cost ($)	Potential Funding Source	Location + Responsible Jurisdiction	Cost / Benefit Rating	Goals + Objectives Met
2020-21	Harden the courthouse to reinforce the glass exterior and interior doors.	Cyberterrorism	$ 120,000.00	1	$ 120,000.00	HMGP, PDM, FMA	Walton County	High /High	1.2, 2.1, 2.2
2020-22	Install fire suppression system in courthouse to protect network infrastructure and data.	Cyberterrorism	$ 200,000.00	1	$ 200,000.00	HMGP, PDM	Walton County	High /High	1.2, 2.1, 2.2
2020-23	Update cyber incident plans	Cyberterrorism	50,000	1	50,000	General funds, PDM	Walton County	Medium / Medium	1.2, 2.1, 4.1

5.0 PLAN MAINTENANCE

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5.1 Strategy Monitoring, Evaluation and Update

A hazard mitigation plan must present a plan maintenance process that includes the following (44 CFR Section 201.6(c)(4)):

- A section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan over a 5-year cycle
- 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
- A discussion on how the community will continue public participation in the plan maintenance process.

This section details the formal process that will ensure that the hazard mitigation plan remains an active and relevant document and that the participating jurisdictions maintain their eligibility for applicable funding sources. The plan maintenance process includes a schedule for monitoring and evaluating the plan annually and producing an updated plan every five years.

This section also describes how public participation will be integrated throughout the plan maintenance and implementation process. It also explains how the mitigation strategies outlined in this plan will be incorporated into existing planning mechanisms and programs, such as comprehensive land-use planning processes, capital improvement planning, and building code enforcement and implementation.

The plan's format allows sections to be reviewed and updated when new data become available, resulting in a plan that will remain current and relevant. Pursuant to 44CFR 201.6(c)(4)(i), the plan maintenance strategy is discussed in further detail in the sections below.

The LMS Working Group meets quarterly, as necessary. Meetings are advertised to the public and official minutes are kept and made available to a variety of agencies, as well as the public. The monitoring of the mitigation initiatives is done at these meetings by allowing the status of the LMS mitigation initiatives to be documented and updated in the plan. Documentation of plan review and updates is done by the LMS Chair or designee. The HIRA will be reviewed yearly along with the LMS at the quarterly Work Group meetings. The review will be coordinated by the LMS Working Group Chair or designee.

5.2 Annual Update Process

Florida Administrative Code (FAC) 27P-22 requires submittal of an annual LMS update to the Florida Division of Emergency Management (FDEM) by the last working weekday of each January. To meet this deadline, the following items will be updated in late December/early January of each year. This update will be completed by Walton County Emergency Management with input from LMS Working Group members. The evaluation of the mitigation projects and their applicability to community goals and interests may cause projects to be removed or added to the list at these meetings. Additions and removals will be done by the LMS Chair or designee.

- Working Group membership
- Updated or revised goals and objectives
- Mitigation initiatives

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- Existing planning mechanisms
- Changes to the Working Group organization and/or planning process.
- Progress made on approved action plan

Concurrently, an annual evaluation report will also be prepared and submitted to the elected governing bodies and made available to the public. The LMS Working Group Chair or designee will prepare the report. It will address the following:

- Description of how the report was prepared and submitted to the governing body and made available to the public
- How the reader can obtain a copy of the strategy or evaluation report
- A review of each recommendation or action item in the action plan and how much was accomplished during the previous year
- A status update of any objectives or action items
- Recommendations for new projects or revised recommendations

Updates to the LMS and Hazard Identification and Risk Assessment (HIRA) can be made with approval from the LMS Working Group. If such updates do occur outside the typical five-year update cycle, those updates will be provided to FDEM.

5.3 Five Year Update Process

Federal regulations require that local hazard mitigation plans be reviewed, revised if appropriate, and resubmitted for approval in order to remain eligible for benefits awarded under the Disaster Mitigation Act (44 CFR Section 201.6.d(3) and Section 201.7(d)(3)). This plan's format allows the planning partnership to review and update sections when new data become available. New data can be easily incorporated, resulting in a plan that will remain current and relevant. The planning partnership intends to update the plan on a five-year cycle from the date of plan approval. This cycle may be accelerated to less than five years based on the following triggers:

- A presidential disaster declaration that impacts the planning area
- A hazard event that causes loss of life
- An update of a participating jurisdiction's comprehensive plan

It will not be the intent of the update process to develop a completely new hazard mitigation plan. Based on needs identified by the planning team at that time, the update will, at a minimum, include the following elements:

- The update process will be convened through a new steering committee.
- The hazard risk assessment will be reviewed and, if necessary, updated using best available information and technologies.
- Mitigation Action will be reviewed and revised to account for any actions completed, dropped, or changed and to account for changes in the risk assessment or planning partnership policies identified under other planning mechanisms (such as the comprehensive plan).
- The draft update will be sent to appropriate agencies and organizations for comment.
- The public will be given an opportunity to comment on the update prior to adoption.
- Partners' governing bodies will adopt their respective portions of the updated plan.

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Because plan updates can require a year or more to complete, Walton County Emergency Management will initiate efforts to update the plan before it expires. Walton County Emergency Management will consider applying for funding to update the plan no later than 2 calendar years before plan expiration.

5.4 Incorporation into Other Planning Mechanisms

The information on hazard, risk, vulnerability, and mitigation contained in this plan is based on the best science and technology available at the time this plan was prepared. The comprehensive plans of the planning partners are integral parts of this plan. The LMS Working Group, through adoption of comprehensive plans and zoning ordinances, have planned for the impact of natural hazards. The plan development process provided them with the opportunity to review and expand on policies contained within these planning mechanisms. The planning partners used their Comprehensive Plans and the Local Mitigation Strategy as complementary documents that work together to achieve the goal of reducing risk exposure to the citizens of the planning area. An update to a Comprehensive Plan may trigger an update to the Local Mitigation Strategy unless the Comprehensive Plan utilizes the Local Mitigation Strategy's HIRA in order to avoid redundancies and conflicting reporting.

All participating agencies are committed to creating a linkage between the hazard mitigation plan and their individual Comprehensive Plans by identifying a mitigation action as such and giving that action a high priority. Other planning processes and programs to be coordinated with the recommendations of the hazard mitigation plan include the following:

- Emergency response plans
- Training and exercise of emergency response plans
- Debris management plans
- Recovery plans
- Capital improvement programs
- Municipal codes
- Community design guidelines
- Water-efficient landscape design guidelines
- Stormwater management programs
- Water system vulnerability assessments
- Community wildfire protection plans
- Comprehensive flood hazard management plans
- Resiliency plans
- Community Development Block Grant-Disaster Recovery action plans
- Public information/education plans.

Walton County and its municipalities have other plans and ordinances that will be reviewed and integrated into the Local Mitigation Strategy as they all undergo updates. The following is a list of particular plans and codes that have and will continue to be integrated into the Walton County Local Mitigation Strategy. These plans and codes will reciprocatively incorporate the LMS into their planning mechanisms during their individual update cycles.

- Walton County Comprehensive Plan

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- Walton County Land Development Code
- Walton County Post Disaster Redevelopment Plan
- Walton County Flood Hazard Specific Plan
- Walton County Continuity of Operations Plan (anticipated completion year 2020)
- Walton County Flood Prevention Ordinance
- Walton County Flood Insurance Rate Maps
- City of DeFuniak Springs Comprehensive Plan
- City of DeFuniak Springs Land Development Code
- City of Freeport Comprehensive Plan
- City of Freeport Land Use Development Code
- City of Paxton Land Development Code
- Other plans and ordinances/codes as they are created.

The Local Mitigation Strategy will consider any changes in these plans and incorporate the information accordingly in its next update cycle.

Some action items do not need to be implemented through regulation. Instead, these items can be implemented through the creation of new educational programs, continued interagency coordination, or improved public participation. As information becomes available from other planning mechanisms that can enhance this plan, that information will be incorporated via the update process.

The LMS Working Group will continue their efforts to develop and implement a year-round program to engage the jurisdictions and the community in the mitigation planning process. These efforts include but are not limited to:

- Continuing to invite the public to attend LMS Working Group meetings
- Continuing to abide by Florida Sunshine public meeting laws
- Continuing to hold a presence on various social media outlets to inform the public of current events
- Encourage public participation in the Plan update process including gathering their plan update feedback
- Ensure this Plan is readily available on the Walton County Office of Emergency Management website for public review

See Appendix G for more information displaying the Walton County Office of Emergency Management's continued public involvement efforts.

5.5 Implementation of the LMS Into Other Planning Mechanisms

Walton County Office of Emergency Management has oversight of the process for incorporating the LMS into other local government planning mechanisms. Some plans, such as the Comprehensive Plan and Continuity of Operations

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Plan (COOP) (currently undergoing an update with an anticipated completion year of 2020), have a prescribed process that provide the opportunity for integration of LMS goals and objectives at scheduled intervals. During these update cycles, a review of the LMS for consistencies identifies opportunities to link the LMS to other revised plans. As an example, information collected for the LMS HIRA can be used to update the CEMP and be used as a planning reference to the COOP.

Additionally, Emergency Management staff continuously seek plan-development opportunities that are not part of existing planning cycles but are relevant to the goals and objectives of the LMS. For example, strategic planning is utilized by reviewing both short- and long-term needs of the County's jurisdictions and addressing gaps and initiatives through policy and budget.

Public education and outreach are a large part of the LMS. Regularly, Walton County Emergency Management will conduct site visits to hazard risk areas and organize and attend public meetings and events, such as:

- COVID-19 testing drive-thru in Freeport, May 14, 2020
- Florida Department of Health, City of Paxton Branch COVID-19 testing, May 28, 2020
- Emergency Management at the Capitol Day, 2020
- Host of HERicane Florida, Landfall: Walton County, 2019 and 2020 (postponed due to COVID-19)
- Co-instructor at numerous FEMA continued education courses in classroom and annual conference settings
- Periodic hosting of FEMA continued education courses at the Walton County EOC
- Community Emergency Response Teams (CERT) member recruiting, on-boarding course instructing, public outreach event organization, exercise event organization, donation organization, community disaster volunteering, etc.

See the Walton County Emergency Management FaceBook page for further documentation of public outreach events.

5.6 Continued Public Involvement

The public outreach strategy used during development of the current update will provide a framework for public engagement throughout the plan maintenance process. It can be adapted for ongoing public outreach as determined to be feasible by the LMS Working Group.

The public will continue to be apprised of hazard mitigation activities through the County website and reports on successful hazard mitigation actions provided to the media and social media outlets. Walton County Emergency Management will keep the website maintained, including monitoring the email address where members of the public can submit comments to the steering committee. This site will house the final plan and will be a one-stop shop for information regarding the plan, the LMS Working Group and plan implementation. Walton County Emergency Management's social media pages are also regularly updated to provide information and engage the public.

Upon initiation of the next plan update process, a new public involvement strategy will be initiated, with guidance from the LMS Working Group. This strategy will be based on the needs and capabilities of the jurisdictions at the time of the update. At a minimum, it will include the use of the county website and social media.

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5.7 Monitoring, Evaluating and Updating the LMS

The Walton County Office of Emergency Management has the primary responsibility of monitoring, evaluating and updating the LMS Plan.

Monitoring the LMS

The monitoring effort put forth by Walton County Emergency Management includes technical and clerical support for the benefit of the LMS Working Group. Emergency Management will monitor the status the LMS-supported mitigation projects throughout the year and will provide FDEM with the annual 27P-22 update. Based on this annual LMS review, the LMS Working Group Chair will call a LMS Working Group meeting. If a significant event occurs within Walton County, for which a LMS- supported mitigation project may be eligible for state or federal grant funding, a special meeting of the LMS Working Group will be called by the LMS Chair to review the project and prepare necessary documentation for the potential grant funding opportunity.

Evaluating the LMS

If no potential changes have been identified during the *Monitoring* phase, the LMS Working group will meet at least once annually as required per state FAC statute. The LMS Working Group evaluation criterial utilized by the Walton County Office of Emergency Management and/or the LMS Working Group include but is not limited to:

- Confirm all participating jurisdictions have adopted the LMS Plan
- Review of any new or anticipated changing laws, regulations or policies affecting the LMS
- Review of any state or federal mandates affecting the LMS
- Review of the Goals and Objectives for continued applicability
- Review of recent disasters requiring a LMS hazard update
- Review of the mitigation actions list to update the status and applicability of each project
- Create state and/or federal grant applications for projects that will be “shovel-ready” after the next anticipated disaster occurs, or open grant funding opportunity
- Review any After Action Reports (AAR) for possible lessons learned incorporation or LMS updates

Updating the LMS

In the event that the LMS Working Group determines that any of the abovementioned criteria requires a LMS update, the draft section updates will be made and presented to the LMS Chair for review. Upon LMS Chair approval the LMS Working Group will vote to approve the update; change it again or adopt it accordingly. If the changes are minor (as determined by the County Emergency Management Director or LMS Working Group Chair) then the LMS Working Group will vote to approve the update. If the changes are determined to be major (as determined by the County Emergency Management Director or LMS Working Group Chair) then each jurisdiction will re-adopt the updated LMS through their respective adoption process. At that time, the LMS *Summary of Changes* section will also be updated.

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Walton County Local Mitigation Strategy Update 2020

Appendix A: Walton County Capability Assessment

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
County Worksheet #2 – County Capability Assessment

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for the County by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. In addition, indicate the code chapter, and name of plan including any explanation of authority in the right-most column.

Who can assist with completing this table: County Planner, Clerk, Code Official. Refer to your County codes and ordinances, Master Plan.

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan				
Capital Improvements Plan	Yes, State projects only	County	Planning	Capital Improvements Element – Comprehensive Plan
Floodplain Management / Basin Plan				
Stormwater Management Plan				
Open Space Plan	Yes/Integrated	County	Planning	Chapter 4 Land Development Code Conservation Element of Comprehensive Plan
Stream Corridor Management Plan				
Watershed Management or Protection Plan	Yes Coastal Dune Lakes	County	Planning	Chapter 4 Land Development Code Coastal Management Element of Comprehensive Plan
Economic Development Plan	Yes	County	Planning	US 331 Corridor Economic Development Plan
Comprehensive Emergency Management Plan				
Emergency Operations Plan				
Post-Disaster Recovery Plan				
Transportation Plan	Pending Mobility Plan	County	Planning	Proposed Transportation Element of Comprehensive Plan
Strategic Recovery Planning Report				
Other Plans:	Town Center Master Plan Bay Walton Sector Plan	County	Planning	Chapter 2 – Land Development Code 2.02.24 Future Land Use Element – Comprehensive Plan Objective L1.21 and associated Goals and Policies
Regulatory Capability				
Building Code	Yes	State	Building	

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Zoning Ordinance	Yes/Integrated	County	Planning	Chapter 2 – Land Development Code
Subdivision Ordinance	Yes/Integrated	County	Planning	Chapter 1, 2, 4, and 5 Land Development Code
NFIP Flood Damage Prevention Ordinance	Yes/Integrated	County	Planning	Chapter 2, 4 and 5 of Land Development Code (4.09.00, 5.00.07)
NFIP: Cumulative Substantial Damages				
NFIP: Freeboard	Yes	County	Planning	
Growth Management Ordinances	Yes	County	Planning	Comprehensive Plan and Land Development Code
Site Plan Review Requirements	Yes	County	Planning	Chapter 1 of Land Development Code
Stormwater Management Ordinance	Yes / Integrated	County	Planning	Chapter 5 (5.06.00)
Natural Hazard Ordinance				
Post-Disaster Recovery Ordinance				
Real Estate Disclosure Requirement				
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]				

2. **Administrative and Technical Capability:** Please indicate whether the County maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Planner, Code Official, Clerk, and Administrator.

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning
Mitigation Planning Committee		
Environmental Board/Commission		Coastal Dune Lake Advisory Board ?
Open Space Board/Committee		
Economic Development Commission/Committee	Yes	Economic Development Alliance
Maintenance Programs to Reduce Risk		
Mutual Aid Agreements		
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Certified Floodplain Administrator (2) Senior Planner (6) Planner I (2) Planning Techs (3) Professional Engineers (2)
Engineer(s) or Professional(s) trained in construction	Yes	Development Order Inspectors (2)

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
practices related to buildings and/or infrastructure		Professional Engineers (2)
Planners or engineers with an understanding of natural hazards	Yes	
NFIP Floodplain Administrator	Yes	Two Full Time
Surveyor(s)		
Personnel skilled or trained in GIS and/or HAZUS-MH applications	Yes	Full Time GIS Analyst
Scientist familiar with natural hazards		
Emergency Manager		
Grant Writer(s)		
Staff with expertise or training in benefit/cost analysis		
Professionals trained in conducting damage assessments		

**If you participate in the NFIP, then you have a Floodplain Administrator.*

3. **Fiscal Capability:** Please indicate whether the County has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for State of Federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Administrator, CFO

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	
Capital Improvements Project Funding	Proportionate Fair Share , Pending Mobility Fee for Transportation, Recreation Fee, Preservation Fee
Authority to Levy Taxes for specific purposes	
User fees for water, sewer, gas or electric service	
Impact Fees for homebuyers or developers of new development/homes	Pending Mobility Fee, Recreation Fee, Preservation Fee
Stormwater Utility Fee	
Incur debt through general obligation bonds	
Incur debt through special tax bonds	
Incur debt through private activity bonds	
Withhold public expenditures in hazard-prone areas	
Other Federal or State Funding Programs	
Open Space Acquisition Funding Programs	Preservation Fee
Other	

4. **Education/Outreach and Community Classifications:** Education and outreach refers to public outreach programs and methods that the County has in place that may be used to implement mitigation activities and further communicate risk to residents. The classifications listed below relate to the County's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the County's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance.

Who can assist with completing this table: Code Official, Floodplain Administrator, EM Director

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	Yes	6	December 2019
Building Code Effectiveness Grading Schedule (BCEGS)			
Public Protection (ISO Fire Protection Classes 1 to 10)			
Storm Ready			
Firewise			
Disaster/Safety Programs in/for Schools			
Organizations with Mitigation Focus (advocacy group, non-government)			
Public Education Program/Outreach (through website, social media)			
Public-Private Partnerships			

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at http://www.isomitigation.com/ppc/0000/ppc0001.html
- The National Weather Service Storm Ready website at http://www.weather.gov/stormready/howto.htm
- The National Firewise Communities website at http://firewise.org/

5. **Self-Assessment of Capability:** Please provide an approximate measure of the County's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate or High) based upon best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, please indicate your obstacles?)*	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability		X	
Fiscal Capability			
Community Political Capability			
Community Resiliency Capability			
Capability to Integrate Mitigation into County Processes and Activities.			

**Example obstacles:*

- *Limited staff; Few people have numerous roles/responsibilities*
- *Not aware of FEMA mitigation funding sources*

WALTON COUNTY HAZARD MITIGATION PLAN UPDATE
Worksheet #3 – County NFIP Floodplain Administrator Questionnaire

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

NFIP Floodplain Administrator Name/Title: JASON CATALANO, FLOODPLAIN MANAGER

Flood Vulnerability Summary

1. Does the County maintain lists/inventories of properties that have been flood damaged? If so, does this inventory identify property owners who are interested in mitigation (e.g. elevation, acquisition)?

2. Characterize/quantify the number of structures damaged during past events. If possible, can you provide a table of these structures indicating the number of residential / commercial / industrial?

3. Do you make Substantial Damage estimates?

4. How many are interested in mitigation (elevation or acquisition), and how many are currently in the process of mitigation?

5. What is the funding source(s) for those being mitigated (e.g. property owner, flood insurance and ICC, grant funding)?

Resources

6. Are you the sole person assuming the responsibilities of floodplain administration, or do you have other staff or use contract staff if needed? WE HAVE 2 STAFF MEMBERS, INCLUDING MYSELF.

7. Provide an explanation of the NFIP administration services and functions you and your department provide (e.g. permit review, inspections, damage assessments, and record-keeping, GIS, education and outreach). WE PERFORM PERMIT REVIEW, INSPECTIONS, SUBSTANTIAL IMPROVEMENT ASSESSMENTS, AND RECORD-KEEPING, GIS, EDUCATION, AND OUTREACH.

8. Do you provide any education or outreach to the community regarding flood hazards/risk, and flood risk reduction through NFIP insurance, mitigation, etc.? Please describe. YES, WE HAVE INFORMATION AVAILABLE ON OUR WEBSITE. WE ALSO DO MAILOUTS.

9. Are there any barriers to running an effective floodplain management program in the County? OUR DEVELOPMENT WORKLOAD IS FAIRLY HIGH, AND MORE AND MORE DEVELOPMENT IS WITHIN FLOODPLAIN. JUST KEEPING UP WITH THAT DEMAND TAKES A LOT OF EFFORT AND RESOURCES.

10. Do you feel that you are adequately supported and trained to fulfill your responsibilities as the County floodplain administrator? I THINK THAT IT IS A COMPLEX AND TECHNICAL FIELD. YOU HAVE TO CONTINUE TO DVOTE TIME AND RESOURCES TO LEARNING AND TRAINING IN ORDER TO BEST UNDERSTAND THE REQUIREMENTS AND TO BE ABLE TO COMMUNICATE THOSE TO END USERS.

11. Would you consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators? YES, ABSOLUTELY. WE ATTEND TRAINING AS MUCH AS POSSIBLE, AND WILL CONTUINUE TO DO SO AS SLONG AS IT IS AVAILABLE.

Compliance History

12. Is the community in good-standing in the NFIP? If not, what are the outstanding compliance issues? YES

13. When was the most recent compliance audit [e.g. Community Assistance Visit (CAV)]? 2018 CRS CYCLE VISIT (REVALIDATION)

Regulatory

14. Does your floodplain management regulations/ordinances exceed the FEMA and State minimum requirements? YES

15. Are there other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions? YES

16. Has the County considered joining (or rejoining) the Community Rating System (CRS) program to reduce flood insurance premiums for their insured? If so, would your community attend a CRS seminar if offered locally? WE ARE CURRENTLY IN THE CRS WITH A CLASSIFICATION OF 6. YES, WE WOULD BE INTERESTED IN ATTENDING ANY CRS SEMINAR.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 – County Capability Assessment and Plan Integration

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. We would like to gather an understanding of the County's progress in plan integration, as well as identify potential integration opportunities that Walton County may pursue in the future.

Who can assist with completing this table: The HMP main point of contact should discuss with the Engineer, Clerk, Administrator, Planner, Chief Financial Officer, Building Code Official, NFIP Floodplain Administrator

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Planning	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments (ZBA)	Does the County have a Master/Comprehensive Plan (land-use plan), or are you currently working on an update of your Master/Comprehensive Plan? Yes, Walton County has an adopted Comprehensive Plan that was recently updated in 2018-2019. If so, does it include, or are you considering, areas of natural hazard risk (e.g. flood-prone areas, steep slopes)? Yes, The County's Comprehensive Plan contains a Coastal Management Element that almost entirely considers areas of natural hazard. In addition, Policy L-1.11.7 limits density and intensity in flood plains. Does your Master/Comprehensive plan refer to the local or Countywide Local Mitigation Strategy? Yes, Policies CM-2.2.9 and 2.2.10 and Objective CM-2.4 and associated Policies mention the Countywide Local Mitigation Strategy.
Planner (staff or contract); Stormwater Manager	Do you have a formal Stormwater Management Plan? If so, does this plan specify projects/actions/initiaives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding?
Planner (staff or contract)	Does the County have any of the of the following plans, and if so, please specify if and how they help to manage natural hazard risk? • Re-Development Plan - No • Growth Plan – Yes, US 331 Economic Development Corridor Plan • Economic Development Plan Yes, US 331 Economic Development Corridor Plan • Open Space Plan – No, however open space and native community protection are integrated into the Comprehensive Plan, see Policy C-1.7.3.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 – County Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
	• Watershed or Stream Corridor Management Plan – The County does have regulations related to the Coastal Dune Lakes and Tributaries which are currently part of the Comprehensive Plan. Also Policy C-1.4 and associated policies related to the Choctawhatchee River and Bay system. • Local Waterfront Revitalization Plan - No
All departments	Does the County or Department have a Continuity of Operations/Continuity of Government (COOP/COG) plan(s) that will serve to protect your local government and operations from natural hazard disruptions?
Emergency Management Coordinator	Does the County have a Comprehensive Emergency Management Plan? Does it refer to the LMS?
Planner (staff or contract); OEM	Does the County have a Post-Disaster Recovery Plan, or Strategic Recovery Plan? Does it refer to the LMS? Does it include specific mitigation projects and activities?
Regulatory	
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	Does the County zoning and subdivision regulations, and/or site plan review process, consider natural hazard risk (e.g. the presence of floodplains, steep slopes, etc.)? Yes, the County has two certified Flood Plain Managers that participate in the development review process. Flood plain review is required for each project. This review is based on adopted regulations and policies within the Land Development Code and Comprehensive Plan.
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	What data, information, tools and resources is your Planning Board and/or ZBA provided to guide their decisions with respect to natural hazard risk mangement, and what other resources would assist this process? The Planning Commision is provided with a staff analysis which includes a review of consistency with the adopted Comprehensive Plan and Land Development Code. In addition they are provided a GIS analysis which depicts flood plains and wetlands for each proposed Major development within the County that they act upon. Higher resolotin topographic data for South Walton would provide better information for staff and appointed boards in the development review process. Basin oriented stormwater plans or data would also be beneficial.
Planning Board; Zoning Board of Adjustments: Planner (staff or contract	Does the County zoning and subdivision regulations, and/or site plan review process, require developers to take additional actions to mitigate natural hazard risk (e.g. undergrounding utilities, stormwater detention, creating easements in areas/zones of hazard risk)?
NFIP Floodplain Administrator (specified in your Flood Damage Prevention Ordinance); Building Code Official	Does your NFIP Flood Damage Protection Ordinance include provisions that exceed the minimum Federal and State NFIP regulatory requirements (e.g. increased freeboard, cumulative substantial damages)?

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 – County Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Administrative / Technical Resources and Programs	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments	Do you have a planner or contract planning firm, and what are their functions with respect to natural hazard risk reduction? Yes, Walton County has a robust Planning staff with Senior Planners and Planner I positions as well as two full time Flood Plain Administrators.
Planning Board; Zoning Board of Adjustments	Do you have a Planning Board and/or Zoning Board of Adjustments, and what are their functions with respect to managing natural hazard risk and compliance with related natural hazard regulations (Federal, State and local ordinances) and plans (Master/Comprehensive Plan, Stormwater Management Plans, Local Waterfront Revitalization Plans)? Yes, the County has both a Planning Commission and a Zoning Board of Adjustments. The Planning Commission reviews all major developments for consistency with he County's adopted flood plain regulations as well as any proposed Land Development Code of Comprehensive Plan amendments. The ZBA would hear any variance request related to these regulations which are available for variance application. The powers and responsibilities of each of the Boards are described within Chapter 1 of the adopted Land Developmetn Code.
Administrator, Clerk, Council/Committee	Do you have any other Boards or Committees that include functions with respect to managing natural hazard risk?
Stormwater Manager, Administrator, Council/Committee	Who performs the Stormwater Management functions in the County (name and position, or contractor)? Andrea Ward, P.E. Project Engineer (Planning and Development Department) Contract Engineering Firm - Dewberry
Administrator, Clerk, Council/Committee	Who performs the NFIP Floodplain Management functions in the County (name and position)? Jason Catalano, CFM Flood Plain Administrator Aaron Craker, CFM GIS Analyst
Engineering, Building Department/Code Officials	Do you have staff, or do you contract with firms, that have experience with developing Benefit-Cost Analysis?
Building Department/Code Officials	Do you have staff, or do you contract with firms, who can perform Substantial Damage Estimates?
Administrator, Clerk, Chief Financial Officer	Do you have staff, or do you contract with firms, that have experience in preparing grant applications for mitigation projects?
All Departments	Does your staff get training or continuing professional education which supports natural hazard risk reduction?
All Departments	Can you identify areas that your staff would benefit from additional training and/or certification with respect to natural hazard risk management?
Mayor, Administrator, Clerk, DPW	Do you have other hazard mangement programs in place such as vegetation management?
All Departments	Do any of your staff have job descriptions that specifically include identifying and/or implementing mitigation projects/actions or other efforts to reduce natural hazard risk?

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE

Worksheet #5 – County Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
All Departments	Do any of your staff or Departments participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities? (e.g. building code officials groups, LEPCs, flood task forces, etc.)?
Public Education and Outreach	
Board of County Commissioners, Administrator, Clerk	Please describe any public outreach mechanisms/programs you have in place to inform citizens on natural hazards (e.g. safe use of generators, emergency preparedness, flood hazard information).
Board of County Commissioners,, Administrator, Clerk	Can you identify any enhancements that would promote further public outreach and education in the County with respect to natural hazard risk management?
Fiscal Resources	
Board of County Commissioners,, Council/Committee, Administrator, CFO	Does your operating budget include line items for mitigation projects/activities?
Board of County Commissioners,, Council/Committee, Administrator, CFO	Does the County have a Capital Improvements Budget, and does it include budget for mitigation-related projects (e.g. improved stormwater management/drainage, hardening of critical facilities and infrastructure)? The Comprehensive Plan contains a five year schedule of Capital Improvements as required by Statute. At this time it only contains Transportation projects.
Board of County Commissioners, Council/Committee, Administrator, CFO	Has the County pursued or been awarded grant funds for mitigation-related projects, and if so, for each please identify the project, funding source, amount of funding, and if local matches were required and how they were met?
Board of County Commissioners,, Council/Committee, Administrator, CFO	Does the County have any other mechanisms to fiscally support hazard mitigation projects?

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – County Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Please indicate any recent development within the County from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in the County.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					

Known or Anticipated Development in the Next Five (5) Years					
Bay Walton Sector Plan DSAP -1					
Walton County Mobility Plan Projects (Pending Approval)					

Walton County Local Mitigation Strategy Update 2020

Appendix B: City of DeFuniak Springs Capability Assessment

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

Municipality/Tribe: City of DeFuniak Springs

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. In addition, indicate the code chapter, and name of plan including any explanation of authority in the right-most column.

Who can assist with completing this table: Municipal Planner, Clerk, Code Official. Refer to your codes and ordinances, Master Plan.

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	No	–	–	–
Capital Improvements Plan	Yes	Local	DFS	
Floodplain Management / Basin Plan	Yes	Local	Planning	
Stormwater Management Plan				
Open Space Plan				
Stream Corridor Management Plan				
Watershed Management or Protection Plan				
Economic Development Plan	Yes			
Comprehensive Emergency Management Plan				
Emergency Operations Plan	No			
Post-Disaster Recovery Plan	No			
Transportation Plan	No			
Strategic Recovery Planning Report	No			
Other Plans:				
Regulatory Capability				
Building Code	Yes			
Zoning Ordinance	Yes			
Subdivision Ordinance	Yes			
NFIP Flood Damage Prevention Ordinance	Yes			
NFIP: Cumulative Substantial Damages				
NFIP: Freeboard				

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Growth Management Ordinances	Yes			
Site Plan Review Requirements	Yes			
Stormwater Management Ordinance				
Natural Hazard Ordinance				
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement				
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]				

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Planner, Code Official, Clerk, and Administrator.

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Dept.
Mitigation Planning Committee	No	—
Environmental Board/Commission	No	—
Open Space Board/Committee	No	—
Economic Development Commission/Committee	Yes	Admin.
Maintenance Programs to Reduce Risk		
Mutual Aid Agreements	Yes	Fire/PD/? others?
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Planning/Dewberry
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Dewberry/Walton Co. Building Dept.
Planners or engineers with an understanding of natural hazards	Yes	Planning
NFIP Floodplain Administrator	Yes	Planning
Surveyor(s)	No	—
Personnel skilled or trained in GIS and/or HAZUS-MH applications	Yes	WaltonCo.GIS/ECRC
Scientist familiar with natural hazards	No	—
Emergency Manager	Yes	Walton County EM
Grant Writer(s)	Yes	Admin.
Staff with expertise or training in benefit/cost analysis	Yes	Planning/Walton Co. EM
Professionals trained in conducting damage assessments	Yes	Planning/Walton Co. EM

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

**If you participate in the NFIP, then you have a Floodplain Administrator.*

3. **Fiscal Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for State of Federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Administrator, CFO

Financial Resources	Accessible or Eligible to Use (Yes/No)	
Community development Block Grants (CDBG, CDBG-DR)	Yes	Admin
Capital Improvements Project Funding	Yes	Admin
Authority to Levy Taxes for specific purposes	Yes ?	Finance
User fees for water, sewer, gas or electric service	Yes	Utility Billing
Impact Fees for homebuyers or developers of new development/homes	Yes	Planning
Stormwater Utility Fee	Yes / Don't have	Planning ?
Incur debt through general obligation bonds	" "	Finance
Incur debt through special tax bonds	" "	Finance
Incur debt through private activity bonds	" "	Finance
Withhold public expenditures in hazard-prone areas	" "	Admin.
Other Federal or State Funding Programs	Yes	Admin.
Open Space Acquisition Funding Programs	Yes / Don't have	Admin
Other		

All require CC authorization.

4. **Education/Outreach and Community Classifications:** Education and outreach refers to public outreach programs and methods that the municipality has in place that may be used to implement mitigation activities and further communicate risk to residents. The classifications listed below relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance.

Who can assist with completing this table: Code Official, Floodplain Administrator, EM Director

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	NP		
Building Code Effectiveness Grading Schedule (BCEGS)			
Public Protection (ISO Fire Protection Classes 1 to 10)	yes		
Storm Ready			
Firewise			
Disaster/Safety Programs in/for Schools			
Organizations with Mitigation Focus (advocacy group, non-government)			
Public Education Program/Outreach (through website, social media)			
Public-Private Partnerships			

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at http://www.isomitigation.com/ppc/0000/ppc0001.html
- The National Weather Service Storm Ready website at http://www.weather.gov/stormready/howto.htm
- The National Firewise Communities website at http://firewise.org/

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate or High) based upon best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, please indicate your obstacles?)*	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Fiscal Capability			
Community Political Capability			
Community Resiliency Capability			
Capability to Integrate Mitigation into Municipal/Tribal Processes and Activities.			

**Example obstacles:*

- *Limited staff; Few people have numerous roles/responsibilities*
- *Not aware of FEMA mitigation funding sources*

WALTON COUNTY HAZARD MITIGATION PLAN UPDATE
Worksheet #3 – NFIP Floodplain Administrator Questionnaire

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: City of DeFuniak Springs

NFIP Floodplain Administrator Name/Title: Kelly Schultz/Planning Dir.

Flood Vulnerability Summary

1. Does the community maintain lists/inventories of properties that have been flood damaged? If so, does this inventory identify property owners who are interested in mitigation (e.g. elevation, acquisition)?
   Yes. (The only structure w/ flood damage is the Presbyterian Church on Lake DF. The basement has taken water w/ flooding of lake.)
2. Characterize/quantify the number of structures damaged during past events. If possible, can you provide a table of these structures indicating the number of residential / commercial / industrial?
   See #1
3. Do you make Substantial Damage estimates?
   Yes
4. How many are interested in mitigation (elevation or acquisition), and how many are currently in the process of mitigation?
   N/A? (None)
5. What is the funding source(s) for those being mitigated (e.g. property owner, flood insurance and ICC, grant funding)?
   N/A

Resources

6. Are you the sole person assuming the responsibilities of floodplain administration, or do you have other staff or use contract staff if needed?
   Yes, but I contact colleages. (when needed)..
7. Provide an explanation of the NFIP administration services and functions you and your department provide (e.g. permit review, inspections, damage assessments, and record-keeping, GIS, education and outreach).
   Permit review, inspections, damage assessments, record-keeping, education & outreach.
8. Do you provide any education or outreach to the community regarding flood hazards/risk and flood risk reduction through NFIP insurance, mitigation, etc.? Please describe.
   Educate property owners w/ requests in (or near) flood zone. Working on literature to help educate.
9. Are there any barriers to running an effective floodplain management program in your community?
   None Known.

For use at Community events and to post on web page

10. Do you feel that you are adequately supported and trained to fulfill your responsibilities as the floodplain administrator?

Yes, But I need to complete Floodplain Admin. Cert

11. Would you consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators?

Yes

Compliance History

12. Is the community in good-standing in the NFIP? If not, what are the outstanding compliance issues?

Yes

13. When was the most recent compliance audit [e.g. Community Assistance Visit (CAV)]?

2017

Regulatory

14. Does your floodplain management regulations/ordinances exceed the FEMA and State minimum requirements?

No

15. Are there other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?

Comp. Plan

16. Has the community considered joining (or rejoining) the Community Rating System (CRS) program to reduce flood insurance premiums for their insured? If so, would your community attend a CRS seminar if offered locally?

Yes / Yes

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: City of DeFuniak Springs

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. We would like to gather an understanding of your community's progress in plan integration, as well as identify potential integration opportunities that your community may pursue in the future.

Who can assist with completing this table: The HMP main point of contact should discuss with the Engineer, Clerk, Mayor/Administrator, Planner, Chief Financial Officer, Building Code Official, NFIP Floodplain Administrator

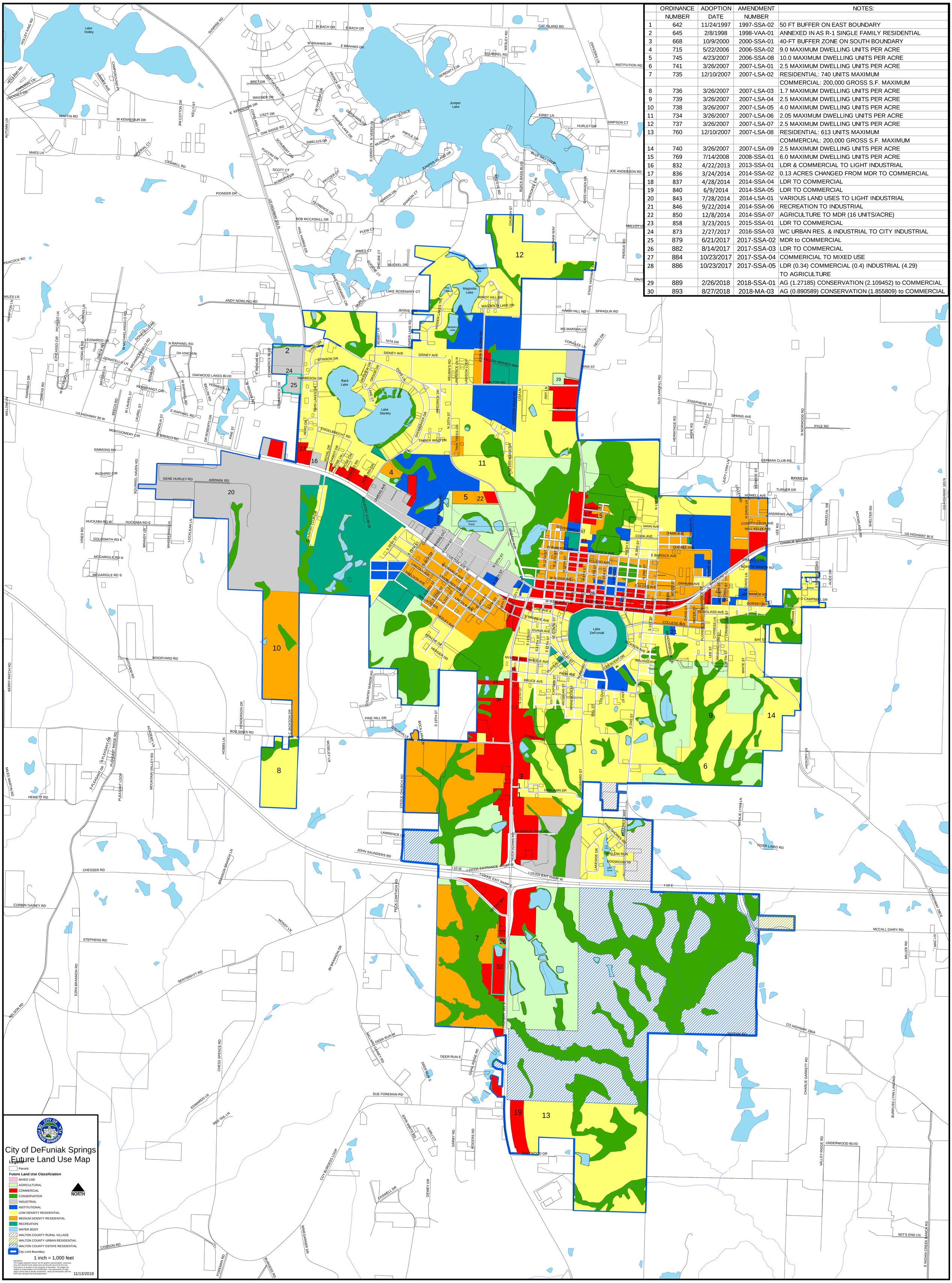
Applicable Department/Agency	Plan, Program, Mechanism, etc.
	Planning
Planner (staff or contract); Planning Board; Zoning Board of Adjustments (ZBA)	Does your community have a Master/Comprehensive Plan (land-use plan), or are you currently working on an update of your Master/Comprehensive Plan? Yes If so, does it include, or are you considering, areas of natural hazard risk (e.g. flood-prone areas, steep slopes)? Yes Flood prone areas, wetlands Does your Master/Comprehensive plan refer to the local or Countywide Local Mitigation Strategy? No
Planner (staff or contract); Stormwater Manager	Do you have a formal Stormwater Management Plan? Not separate plan but regs. in comp plan & LDC If so, does this plan specify projects/actions/initiaives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding? Yes.
Planner (staff or contract)	Does your community have any of the of the following plans, and if so, please specify if and how they help to manage natural hazard risk? • Re-Development Plan – LDC • Growth Plan – No • Economic Development Plan – Yes (2010 plan) • Open Space Plan – LDC/comp plan • Watershed or Stream Corridor Management Plan – LDC/comp plan • Local Waterfront Revitalization Plan – NO

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
All departments	Does your community or Department have a Continuity of Operations/Continuity of Government (COOP/COG) plan(s) that will serve to protect your local government and operations from natural hazard disruptions? No (not formally)
Emergency Management Coordinator	Does your community have a Comprehensive Emergency Management Plan? Does it refer to the LMS? No (working on ~~plan~~) Emergency Operations Plan
Planner (staff or contract); OEM	Does your community have a Post-Disaster Recovery Plan, or Strategic Recovery Plan? Does it refer to the LMS? Does it include specific mitigation projects and activities? No
Regulatory	
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	Does your zoning and subdivision regulations, and/or site plan review process, consider natural hazard risk (e.g. the presence of floodplains, steep slopes, etc.)? Yes
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	What data, information, tools and resources is your Planning Board and/or ZBA provided to guide their decisions with respect to natural hazard risk mangement, and what other resources would assist this process? Maps / ordinances / comp plan
Planning Board; Zoning Board of Adjustments: Planner (staff or contract	Does your municipal zoning and subdivision regulations, and/or site plan review process, require developers to take additional actions to mitigate natural hazard risk (e.g. undergrounding utilities, stormwater detention, creating easements in areas/zones of hazard risk)? Yes
NFIP Floodplain Administrator (specified in your Flood Damage Prevention Ordinance); Building Code Official	Does your NFIP Flood Damage Protection Ordinance include provisions that exceed the minimum Federal and State NFIP regulatory requirements (e.g. increased freeboard, cumulative substantial damages)? No
Administrative / Technical Resources and Programs	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments	Do you have a planner or contract planning firm, and what are their functions with respect to natural hazard risk reduction? Yes
Planning Board; Zoning Board of Adjustments	Do you have a Planning Board and/or Zoning Board of Adjustments, and what are their functions with respect to managing natural hazard risk and compliance with related natural hazard regulations (Federal, State and local ordinances) and plans (Master/Comprehensive Plan, Stormwater Management Plans, Local Waterfront Revitalization Plans)? Yes (PB) Variances from LDC, ~~[illegible]~~ S/D, PDP, PR review
Mayor, Administrator, Clerk, Council/Committee	Do you have any other Boards or Committees that include functions with respect to managing natural hazard risk? No

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Stormwater Manager, Mayor, Administrator, Council/Committee	Who performs the Stormwater Management functions in your community (name and position, or contractor)?
Mayor, Administrator, Clerk, Council/Committee	Who performs the NFIP Floodplain Management functions in your community (name and position)? Kelly Schultz, Planning Director
Engineering, Building Department/Code Officials	Do you have staff, or do you contract with firms, that have experience with developing Benefit-Cost Analysis? Yes
Building Department/Code Officials	Do you have staff, or do you contract with firms, who can perform Substantial Damage Estimates? Yes
Mayor, Administrator, Clerk, Chief Financial Officer	Do you have staff, or do you contract with firms, that have experience in preparing grant applications for mitigation projects? Yes
All Departments	Does your staff get training or continuing professional education which supports natural hazard risk reduction? Yes
All Departments	Can you identify areas that your staff would benefit from additional training and/or certification with respect to natural hazard risk management? Yes
Mayor, Administrator, Clerk, DPW	Do you have other hazard mangement programs in place such as vegetation management? Wetland protection
All Departments ?	Do any of your staff have job descriptions that specifically include identifying and/or implementing mitigation projects/actions or other efforts to reduce natural hazard risk?
All Departments	Do any of your staff or Departments participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities? (e.g. building code officials groups, LEPCs, flood task forces, etc.)? Yes
Public Education and Outreach	
Mayor, Administrator, Clerk	Please describe any public outreach mechanisms/programs you have in place to inform citizens on natural hazards (e.g. safe use of generators, emergency preparedness, flood hazard information). City's website
Mayor, Administrator, Clerk	Can you identify any enhancements that would promote further public outreach and education in your community with respect to natural hazard risk management? Yes
Fiscal Resources	
Mayor, Council/Committee, Administrator, CFO	Does your municipal/operating budget include line items for mitigation projects/activities? Yes (generators, ?others?)
Mayor, Council/Committee, Administrator, CFO ?	Does your community have a Capital Improvements Budget, and does it include budget for mitigation-related projects (e.g. improved stormwater management/drainage, hardening of critical facilities and infrastructure)?
Mayor, Council/Committee, Administrator, CFO	Has your community pursued or been awarded grant funds for mitigation-related projects, and if so, for each please identify the project, funding source, amount of funding, and if local matches were required and how they were met?
Mayor, Council/Committee, Administrator, CFO	Does your community have any other mechanisms to fiscally support hazard mitigation projects?



	ORDINANCE NUMBER	ADOPTION DATE	AMENDMENT NUMBER	NOTES:
1	642	11/24/1997	1997-SSA-02	50 FT BUFFER ON EAST BOUNDARY
2	645	2/8/1998	1998-VAA-01	ANNEXED IN AS R-1 SINGLE FAMILY RESIDENTIAL
3	668	10/9/2000	2000-SSA-01	40-FT BUFFER ZONE ON SOUTH BOUNDARY
4	715	5/22/2006	2006-SSA-02	9.0 MAXIMUM DWELLING UNITS PER ACRE
5	745	4/23/2007	2006-SSA-08	10.0 MAXIMUM DWELLING UNITS PER ACRE
6	741	3/26/2007	2007-LSA-01	2.5 MAXIMUM DWELLING UNITS PER ACRE
7	735	12/10/2007	2007-LSA-02	RESIDENTIAL: 740 UNITS MAXIMUM
				COMMERCIAL: 200,000 GROSS S.F. MAXIMUM
8	736	3/26/2007	2007-LSA-03	1.7 MAXIMUM DWELLING UNITS PER ACRE
9	739	3/26/2007	2007-LSA-04	2.5 MAXIMUM DWELLING UNITS PER ACRE
10	738	3/26/2007	2007-LSA-05	4.0 MAXIMUM DWELLING UNITS PER ACRE
11	734	3/26/2007	2007-LSA-06	2.05 MAXIMUM DWELLING UNITS PER ACRE
12	737	3/26/2007	2007-LSA-07	2.5 MAXIMUM DWELLING UNITS PER ACRE
13	760	12/10/2007	2007-LSA-08	RESIDENTIAL: 613 UNITS MAXIMUM
				COMMERCIAL: 200,000 GROSS S.F. MAXIMUM
14	740	3/26/2007	2007-LSA-09	2.5 MAXIMUM DWELLING UNITS PER ACRE
15	769	7/14/2008	2008-SSA-01	6.0 MAXIMUM DWELLING UNITS PER ACRE
16	832	4/22/2013	2013-SSA-01	LDR & COMMERCIAL TO LIGHT INDUSTRIAL
17	836	3/24/2014	2014-SSA-02	0.13 ACRES CHANGED FROM MDR TO COMMERCIAL
18	837	4/28/2014	2014-SSA-04	LDR TO COMMERCIAL
19	840	6/9/2014	2014-SSA-05	LDR TO COMMERCIAL
20	843	7/28/2014	2014-LSA-01	VARIOUS LAND USES TO LIGHT INDUSTRIAL
21	846	9/22/2014	2014-SSA-06	RECREATION TO INDUSTRIAL
22	850	12/8/2014	2014-SSA-07	AGRICULTURE TO MDR (16 UNITS/ACRE)
23	858	3/23/2015	2015-SSA-01	LDR TO COMMERCIAL
24	873	2/27/2017	2016-SSA-03	WC URBAN RES. & INDUSTRIAL TO CITY INDUSTRIAL
25	879	6/21/2017	2017-SSA-02	MDR to COMMERCIAL
26	882	8/14/2017	2017-SSA-03	LDR TO COMMERCIAL
27	884	10/23/2017	2017-SSA-04	COMMERICIAL TO MIXED USE
28	886	10/23/2017	2017-SSA-05	LDR (0.34) COMMERCIAL (0.4) INDUSTRIAL (4.29)
				TO AGRICULTURE
29	889	2/26/2018	2018-SSA-01	AG (1.27185) CONSERVATION (2.109452) to COMMERCIAL
30	893	8/27/2018	2018-MA-03	AG (0.890589) CONSERVATION (1.855809) to COMMERCIAL

Walton County Local Mitigation Strategy Update 2020

Appendix C: City of Freeport Capability Assessment

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Questions? Please contact:

Brian Rutherford or Melissa Schloss

Brian - E-mail: brian.rutherford@tetratech.com
Melissa - E-mail: melissa.schloss@tetratech.com

Municipality/Tribe: **CITY OF FREEPORT**

Who can provide information about events and losses: Emergency Management, Police, Fire, Department of Public Works (DPW), building inspector, municipal engineer. Refer to FEMA Project Worksheets (PWs), DPW records, police response records, etc.

In the table below, please identify events in which your community suffered significant damages/losses and describe these losses (e.g., flooded roads, road closures, DPW/Police overtime, debris management, opened shelter for two days, etc.). Please add other non-declared events that affected your community that are not listed.

Feel free to add additional sheets for other major events that impacted your community.

Dates of Event	Event Type (Disaster Declaration if applicable)	Walton County Designated Disaster?	Did your community suffer losses/costs from this event? Yes/No – (If "yes" please complete an Event Loss Summary Sheet, attached to this worksheet, for this event.)	Notes on damages within County
NONE				

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE

Worksheet #1 – Events and Losses

Dates of Event	Event Type (Disaster Declaration if applicable)	Walton County Designated Disaster?	Did your community suffer losses/costs from this event? Yes/No – (If "yes" please complete an Event Loss Summary Sheet, attached to this worksheet, for this event.)	Notes on damages within County
NONE				

Please identify any specific vulnerabilities that you are aware of in your community (e.g. floodprone areas or specific properties, critical facilities that lack backup power, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020
UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): NONE_____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE

Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): NONE_____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE

Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): NONE_____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

Event and Loss Summary Sheet
Other Events (please create additional sheets as needed)

Event Date and Description (incl. DR# if applicable): NONE_____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

Municipality/Tribe: CITY OF FREEPORT

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. In addition, indicate the code chapter, and name of plan including any explanation of authority in the right-most column.

Who can assist with completing this table: Municipal Planner, Clerk, Code Official. Refer to your codes and ordinances, Master Plan.

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	YES	LOCAL	PLANNING	COMP. PLAN ORD 2018-01
Capital Improvements Plan	YES	LOCAL	ENGINEERING	COMP PLAN ORD 2018-01
Floodplain Management / Basin Plan	YES	LOCAL	PLANNING	FLOODPLAIN ORD 2016-04 COMP PLAN ORD 2018-01 LDC 0RD 2018-11
Stormwater Management Plan	YES	LOCAL	PLANNING	COMP PLAN ORD 2018-01 LDC ORD 2018-11
Open Space Plan	YES	LOCAL	PLANNING	COMP PLAN ORD 2018-01 LDC 2018-11
Stream Corridor Management Plan	YES	LOCAL	PLANNING	LDC ORD 2018-11
Watershed Management or Protection Plan	YES	LOCAL	PLANNING	LDC ORD 2018-11
Economic Development Plan	YES	LOCAL	PLANNING	COMP PLAN ORD 2018-01
Comprehensive Emergency Management Plan	YES	LOCAL	BCC	
Emergency Operations Plan	YES	LOCAL	CITY COUNCIL	FCC: FREEPORT EMERGENCY PREPAREDNESS PLAN – WATER DEPT: WATER SYSTEM EMERGENCY PLAN SEWER DEPT: SEWER SYSTEM EMERGENCY PLAN
Post-Disaster Recovery Plan	NO			
Transportation Plan	YES	LOCAL	ENGINEERING	COMP PLAN ORD 2018-01/ LDC ORD 2018-11
Strategic Recovery Planning Report	NO			
Other Plans:				
Regulatory Capability				

Worksheet #2 – Municipal/Tribal Capability Assessment

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Building Code	YES	STATE	ILA/BCC	FLORIDA BUILDING CODE
Zoning Ordinance	YES	LOCAL	PLANNING	LDC ORD 2018-11
Subdivision Ordinance	YES	LOCAL	PLANNING	LDC ORD 2018-11
NFIP Flood Damage Prevention Ordinance	YES	LOCAL	PLANNING	FLOODPLAIN ORD 2016-04
NFIP: Cumulative Substantial Damages	YES	LOCAL	ENGINEERING	FLOODPLAIN ORD 2016-04
NFIP: Freeboard	YES	LOCAL	PLANNING	FLOODPLAIN ORD 2016-04
Growth Management Ordinances	YES	LOCAL	PLANNING	COMP PLAN ORD 2018-01 LDC ORD 2018-11
Site Plan Review Requirements	YES	LOCAL	PLANNING	LDC ORD 2018-11
Stormwater Management Ordinance	YES	LOCAL	PLANNING	COMP PLAN ORD 2018-01 LDC ORD 2018-11
Natural Hazard Ordinance	YES	LOCAL	PLANNING/ ENGINEERING	COMP PLAN ORD 2018-01 LDC ORD 2018-11
Post-Disaster Recovery Ordinance	NO			
Real Estate Disclosure Requirement	NO			
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]				

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Planner, Code Official, Clerk, and Administrator.

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	YES	FREEPORT PLANNING & DEVELOPMENT REVIEW BOARD LDC ORD 2018-11
Mitigation Planning Committee	NO	
Environmental Board/Commission	NO	
Open Space Board/Committee	NO	
Economic Development Commission/Committee	NO	
Maintenance Programs to Reduce Risk	YES	FLOODPLAIN MANAGEMENT ORD 2016-04
Mutual Aid Agreements	YES	VARIANCE ILAS/BCC
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	YES	AICP PLANNING DIRECTOR PLANNING TECHNICIAN
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	YES	PLANNING-PLANNING DIRECTOR ENGINEERING -CITY ENGINEER

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
		WATER DEPT. -WATER SUPERVISOR SEWER DEPT.-/SEWER SUPERVISOR PROJECT MANAGER
Planners or engineers with an understanding of natural hazards	YES	PLANNING DIRECTOR/CITY ENGINEER
NFIP Floodplain Administrator	YES	PLANNING -PLANNING DIRECTOR
Surveyor(s)	YES	PLANNING/CITY SURVEYOR
Personnel skilled or trained in GIS and/or HAZUS-MH applications	YES	PLANNING – PLANNING DIRECTOR (GIS)
Scientist familiar with natural hazards	NO	
Emergency Manager	YES	DESIGNATED COUNCILPERSON/PROJECT MANAGER
Grant Writer(s)	YES	PLANNING – PLANNING DIRECTOR ENGINEERING-CITY ENGINEER
Staff with expertise or training in benefit/cost analysis	YES	ENGINEERING – CITY ENGINEER
Professionals trained in conducting damage assessments	YES	PLANNING – PLANNING DIRECTOR ENGINEERING – CITY ENGINEER WATER DEPT.- SUPERVISOR SEWER DEPT. - SUPERVISOR

**If you participate in the NFIP, then you have a Floodplain Administrator.*

3. **Fiscal Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for State of Federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Administrator, CFO

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	YES
Capital Improvements Project Funding	YES
Authority to Levy Taxes for specific purposes	YES
User fees for water, sewer, gas or electric service	YES (WATER/SEWER)
Impact Fees for homebuyers or developers of new development/homes	YES (CAPACITY FEES)
Stormwater Utility Fee	YES
Incur debt through general obligation bonds	YES
Incur debt through special tax bonds	YES
Incur debt through private activity bonds	NO
Withhold public expenditures in hazard-prone areas	YES
Other Federal or State Funding Programs	YES
Open Space Acquisition Funding Programs	NO
Other	

Worksheet #2 – Municipal/Tribal Capability Assessment

4. **Education/Outreach and Community Classifications:** Education and outreach refers to public outreach programs and methods that the municipality has in place that may be used to implement mitigation activities and further communicate risk to residents. The classifications listed below relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance.

Who can assist with completing this table: Code Official, Floodplain Administrator, EM Director

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)			
Building Code Effectiveness Grading Schedule (BCEGS)	NO		
Public Protection (ISO Fire Protection Classes 1 to 10)	NO		
Storm Ready	NO		
Firewise	NO		
Disaster/Safety Programs in/for Schools	NO		
Organizations with Mitigation Focus (advocacy group, non-government)	NO		
Public Education Program/Outreach (through website, social media)	NO		
Public-Private Partnerships	NO		

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at http://www.isomitigation.com/ppc/0000/ppc0001.html
- The National Weather Service Storm Ready website at http://www.weather.gov/stormready/howto.htm
- The National Firewise Communities website at http://firewise.org/

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate or High) based upon best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, please indicate your obstacles?)*	Moderate	High
Planning and Regulatory Capability			X
Administrative and Technical Capability			X
Fiscal Capability			X
Community Political Capability		X	
Community Resiliency Capability			X
Capability to Integrate Mitigation into Municipal/Tribal Processes and Activities.		X	

**Example obstacles:*

- *Limited staff; Few people have numerous roles/responsibilities*
- *Not aware of FEMA mitigation funding sources*

WALTON COUNTY HAZARD MITIGATION PLAN UPDATE
Worksheet #3 – NFIP Floodplain Administrator Questionnaire

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: CITY OF FREEPORT

NFIP Floodplain Administrator Name/Title: Latilda Hughes-Neel AICP/Planning Director/Floodplain Manager

Flood Vulnerability Summary

1. Does the community maintain lists/inventories of properties that have been flood damaged? If so, does this inventory identify property owners who are interested in mitigation (e.g. elevation, acquisition)? We have no instances of flood-damaged property.

2. Characterize/quantify the number of structures damaged during past events. If possible, can you provide a table of these structures indicating the number of residential / commercial / industrial? N/A

3. Do you make Substantial Damage estimates? N/A

4. How many are interested in mitigation (elevation or acquisition), and how many are currently in the process of mitigation? N/A

5. What is the funding source(s) for those being mitigated (e.g. property owner, flood insurance and ICC, grant funding)? N/A

Resources

6. Are you the sole person assuming the responsibilities of floodplain administration, or do you have other staff or use contract staff if needed? Planning Director: primary responsibility Secondary responsibility: Cliff Knauer PE CFM/City Engineer.

7. Provide an explanation of the NFIP administration services and functions you and your department provide (e.g. permit review, inspections, damage assessments, and record-keeping, GIS, education and outreach). All

8. Do you provide any education or outreach to the community regarding flood hazards/risk, and flood risk reduction through NFIP insurance, mitigation, etc.? Please describe. We have educational materials provided by FEMA we make available to the public.

9. Are there any barriers to running an effective floodplain management program in your community? No.

10. Do you feel that you are adequately supported and trained to fulfill your responsibilities as the floodplain administrator? Yes.

11. Would you consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators? Yes.

Compliance History

12. Is the community in good-standing in the NFIP? If not, what are the outstanding compliance issues? In compliance.

13. When was the most recent compliance audit [e.g. Community Assistance Visit (CAV)]? 2019

Regulatory

14. Does your floodplain management regulations/ordinances exceed the FEMA and State minimum requirements? Yes

15. Are there other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions? Yes. LDC Ord 2018011.

16. Has the community considered joining (or rejoining) the Community Rating System (CRS) program to reduce flood insurance premiums for their insured? No. If so, would your community attend a CRS seminar if offered locally? No.

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #4 – Community Action Review

Questions?
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

Municipality/Tribe ***CITY OF FREEPORT***

Who can provide you information about past mitigation actions: See the 'Responsible Party' column in the table below which identifies who put this action in the 2015 Local Mitigation Strategy (LMS) (e.g., DPW, Engineer, Code Official, Planner, EM Director).

Please use the following table to indicate progress and next steps on your community's mitigation strategy identified in the 2015 LMS. Please be as detailed as possible.

2015 Mitigation Action	**Responsible Party**	**Status** (In progress, No progress, Complete)	**Describe Status** **1. Please describe what was accomplished and indicate % complete.** **2. If there was no progress, indicate what obstacles/delays encountered?** **3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?**	**Next Step** (Include in 2020 LMS? or Discontinue)	**Describe Next Step** **1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate).** **2. If discontinue, explain why.**
Example: *Elevate Main Street Bridge*	*Department of Public Works*	*No Progress*	*1. 0% complete* *2. Budget and personnel constraints have restricted this action from moving forward* *3. No funding secured*	*Include in 2020 LMS*	*1. Elevate Main Street Bridge above the base flood elevation.* *2. (If you chose 'Discontinue,' here is an example: The Town does not have the authority to retrofit this bridge; it is owned by the State.*
NONE					

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: CITY OF FREEPORT

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. We would like to gather an understanding of your community's progress in plan integration, as well as identify potential integration opportunities that your community may pursue in the future.

Who can assist with completing this table: The HMP main point of contact should discuss with the Engineer, Clerk, Mayor/Administrator, Planner, Chief Financial Officer, Building Code Official, NFIP Floodplain Administrator

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Planning	
PLANNING: Planning Director; Planning & Development Review Board (Zoning Board of Adjustments)	Does your community have a Master/Comprehensive Plan (land-use plan), or are you currently working on an update of your Master/Comprehensive Plan? **COMP PLAN ORD 2018-01/LDC ORD 2018-11** If so, does it include, or are you considering, areas of natural hazard risk (e.g. flood-prone areas, steep slopes)? **Our Floodplain Management Ordinance is Appendix "F" of our LDC (Land Development Code)** Does your Master/Comprehensive plan refer to the local or Countywide Local Mitigation Strategy? **Covered in Intergovernmental Coordination Element of COMP PLAN ORD 2018-01**
PLANNING ENGINEERING	Do you have a formal Stormwater Management Plan? **Stormwater management regulations are contained in COMP PLAN ORD 2018-01 and LDC ORD 2018-11** If so, does this plan specify projects/actions/initiaives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding?
PLANNING	Does your community have any of the of the following plans, and if so, please specify if and how they help to manage natural hazard risk? • Re-Development Plan • Growth Plan **COMP PLAN ORD 2018-01/LDC ORD 2018-11/FUTURE LAND USE ELEMENT** • Economic Development Plan **COM PLAN ORD 2018-01/ECONOMIC DEVELOPMENT ELEMENT**

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
	• Open Space **Plan COMP PLAN ORD 2018-01 / REC. & OPEN SPACE ELEMENT** • Watershed or Stream Corridor Management Plan **COMP PLAN ORD 2018-01/CONSERVATION ELEMENT** • Local Waterfront Revitalization Plan **COMP PLAN ORD 2018-01/FUTURE LAND USE ELEMENT**
All departments	Does your community or Department have a Continuity of Operations/Continuity of Government (COOP/COG) plan(s) that will serve to protect your local government and operations from natural hazard disruptions? NO
Emergency Management Coordinator	Does your community have a Comprehensive Emergency Management Plan? Does it refer to the LMS? **We have an Emergency Preparedness Plan. It does not refer to the LMS.**
Planner (staff or contract); OEM	Does your community have a Post-Disaster Recovery Plan, or Strategic Recovery Plan? Does it refer to the LMS? Does it include specific mitigation projects and activities? NO
Regulatory	
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	Does your zoning and subdivision regulations, and/or site plan review process, consider natural hazard risk (e.g. the presence of floodplains, steep slopes, etc.)? YES
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	What data, information, tools and resources is your Planning Board and/or ZBA provided to guide their decisions with respect to natural hazard risk mangement, and what other resources would assist this process**? FLOODPLAIN MANAGEMENT ORD 2016-04**
Planning Board; Zoning Board of Adjustments: Planner (staff or contract	Does your municipal zoning and subdivision regulations, and/or site plan review process, require developers to take additional actions to mitigate natural hazard risk (e.g. undergrounding utilities, stormwater detention, creating easements in areas/zones of hazard risk)? YES
NFIP Floodplain Administrator (specified in your Flood Damage Prevention Ordinance); Building Code Official	Does your NFIP Flood Damage Protection Ordinance include provisions that exceed the minimum Federal and State NFIP regulatory requirements (e.g. increased freeboard, cumulative substantial damages)? YES
Administrative / Technical Resources and Programs	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments	Do you have a planner or contract planning firm, and what are their functions with respect to natural hazard risk reduction? YES. The Planning Director is the designated Floodplain Manager.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Planning Board; Zoning Board of Adjustments	Do you have a Planning Board and/or Zoning Board of Adjustments, and what are their functions with respect to managing natural hazard risk and compliance with related natural hazard regulations (Federal, State and local ordinances) and plans (Master/Comprehensive Plan, Stormwater Management Plans, Local Waterfront Revitalization Plans)? FLOODPLAIN ORD 2016-04
Mayor, Administrator, Clerk, Council/Committee	Do you have any other Boards or Committees that include functions with respect to managing natural hazard risk? NO
Stormwater Manager, Mayor, Administrator, Council/Committee	Who performs the Stormwater Management functions in your community (name and position, or contractor)? ENGINEERING/Dewberry Inc. – Cliff Knaeur PE/CFM
PLANNING	Who performs the NFIP Floodplain Management functions in your community (name and position)? Latilda Hughes-Neel AICP/Planning Director/Floodplain Manager
Engineering, Building Department/Code Officials	Do you have staff, or do you contract with firms, that have experience with developing Benefit-Cost Analysis? CITY ENGINEER
Building Department/Code Officials	Do you have staff, or do you contract with firms, who can perform Substantial Damage Estimates? CITY ENGINEER/PROJECT MANAGER
Mayor, Administrator, Clerk, Chief Financial Officer	Do you have staff, or do you contract with firms, that have experience in preparing grant applications for mitigation projects? PLANNIING DIRECTOR/CITY ENGINEER
All Departments	Does your staff get training or continuing professional education which supports natural hazard risk reduction? YES
All Departments	Can you identify areas that your staff would benefit from additional training and/or certification with respect to natural hazard risk management? FLOODPLAIN MANAGEMENT; DAMAGE ASSESSMENT
Mayor, Administrator, Clerk, DPW	Do you have other hazard mangement programs in place such as vegetation management? NO
All Departments	Do any of your staff have job descriptions that specifically include identifying and/or implementing mitigation projects/actions or other efforts to reduce natural hazard risk? NO
All Departments	Do any of your staff or Departments participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities? (e.g. building code officials groups, LEPCs, flood task forces, etc.)? Flood Manager Assoc.
Public Education and Outreach	
Mayor, Administrator, Clerk	Please describe any public outreach mechanisms/programs you have in place to inform citizens on natural hazards (e.g. safe use of generators, emergency preparedness, flood hazard information). FEMA EDUCATION PAMPHLETS
Mayor, Administrator, Clerk	Can you identify any enhancements that would promote further public outreach and education in your community with respect to natural hazard risk management? NO
Fiscal Resources	

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Mayor, Council/Committee, Administrator, CFO	Does your municipal/operating budget include line items for mitigation projects/activities? WHEN NECESSARY
Mayor, Council/Committee, Administrator, CFO	Does your community have a Capital Improvements Budget, and does it include budget for mitigation-related projects (e.g. improved stormwater management/drainage, hardening of critical facilities and infrastructure)? WHEN NECESSARY
Mayor, Council/Committee, Administrator, CFO	Has your community pursued or been awarded grant funds for mitigation-related projects, and if so, for each please identify the project, funding source, amount of funding, and if local matches were required and how they were met? NO
Mayor, Council/Committee, Administrator, CFO	Does your community have any other mechanisms to fiscally support hazard mitigation projects? NO

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: CITY OF FREEPORT

Please indicate any recent development within your community from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in your community.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					
ATTACHED					

Known or Anticipated Development in the Next Five (5) Years					
ATTACHED					

Walton County Local Mitigation Strategy Update 2020

Appendix D: City of Paxton Capability Assessment

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Questions? Please contact:

Brian Rutherford or Melissa Schloss

Brian - E-mail: brian.rutherford@tetratech.com
Melissa - E-mail: melissa.schloss@tetratech.com

Municipality/Tribe: City of Paxton

Who can provide information about events and losses: Emergency Management, Police, Fire, Department of Public Works (DPW), building inspector, municipal engineer. Refer to FEMA Project Worksheets (PWs), DPW records, police response records, etc.

In the table below, please identify events in which your community suffered significant damages/losses and describe these losses (e.g., flooded roads, road closures, DPW/Police overtime, debris management, opened shelter for two days, etc.). Please add other non-declared events that affected your community that are not listed.

Feel free to add additional sheets for other major events that impacted your community.

Dates of Event	Event Type (Disaster Declaration if applicable)	Walton County Designated Disaster?	Did your community suffer losses/costs from this event? Yes/No – (If "yes" please complete an Event Loss Summary Sheet, attached to this worksheet, for this event.)	Notes on damages within County
N/A	N/A	N/A	N/A	N/A

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020
UPDATE
Worksheet #1 – Events and Losses

Dates of Event	Event Type (Disaster Declaration if applicable)	Walton County Designated Disaster?	Did your community suffer losses/costs from this event? Yes/No – (If "yes" please complete an Event Loss Summary Sheet, attached to this worksheet, for this event.)	Notes on damages within County

Please identify any specific vulnerabilities that you are aware of in your community (e.g. floodprone areas or specific properties, critical facilities that lack backup power, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Other Events (please create additional sheets as needed)

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

Municipality/Tribe: ____City of Paxton_____

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. In addition, indicate the code chapter, and name of plan including any explanation of authority in the right-most column.

Who can assist with completing this table: Municipal Planner, Clerk, Code Official. Refer to your codes and ordinances, Master Plan.

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan				
Capital Improvements Plan				
Floodplain Management / Basin Plan	12/17/2019	Local	Mayor	
Stormwater Management Plan				
Open Space Plan				
Stream Corridor Management Plan				
Watershed Management or Protection Plan				
Economic Development Plan				
Comprehensive Emergency Management Plan				
Emergency Operations Plan				
Post-Disaster Recovery Plan				
Transportation Plan				
Strategic Recovery Planning Report				
Other Plans:				
Regulatory Capability				
Building Code				
Zoning Ordinance				
Subdivision Ordinance				
NFIP Flood Damage Prevention Ordinance				
NFIP: Cumulative Substantial Damages				
NFIP: Freeboard				

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Growth Management Ordinances				
Site Plan Review Requirements				
Stormwater Management Ordinance				
Natural Hazard Ordinance				
Post-Disaster Recovery Ordinance				
Real Estate Disclosure Requirement				
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]				

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Planner, Code Official, Clerk, and Administrator.

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	County	
Mitigation Planning Committee	County	
Environmental Board/Commission	County	
Open Space Board/Committee	County	
Economic Development Commission/Committee	County	
Maintenance Programs to Reduce Risk	yes	
Mutual Aid Agreements	County	
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	County	
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	County	
Planners or engineers with an understanding of natural hazards	County	
NFIP Floodplain Administrator	County	
Surveyor(s)	County	
Personnel skilled or trained in GIS and/or HAZUS-MH applications	County	
Scientist familiar with natural hazards	County	
Emergency Manager	Yes	
Grant Writer(s)	yes	
Staff with expertise or training in benefit/cost analysis	No	
Professionals trained in conducting damage assessments	No	

Worksheet #2 – Municipal/Tribal Capability Assessment

**If you participate in the NFIP, then you have a Floodplain Administrator.*

3. **Fiscal Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for State of Federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Administrator, CFO

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	No
User fees for water, sewer, gas or electric service	Yes
Impact Fees for homebuyers or developers of new development/homes	Yes
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Yes (USDA/RD)
Open Space Acquisition Funding Programs	No
Other	No

4. **Education/Outreach and Community Classifications:** Education and outreach refers to public outreach programs and methods that the municipality has in place that may be used to implement mitigation activities and further communicate risk to residents. The classifications listed below relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance.

Who can assist with completing this table: Code Official, Floodplain Administrator, EM Director

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No		
Building Code Effectiveness Grading Schedule (BCEGS)	County		
Public Protection (ISO Fire Protection Classes 1 to 10)	County		
Storm Ready	Yes		
Firewise	Yes		
Disaster/Safety Programs in/for Schools	Yes		
Organizations with Mitigation Focus (advocacy group, non-government)	Yes		
Public Education Program/Outreach (through website, social media)	Yes		
Public-Private Partnerships	Yes		

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at http://www.isomitigation.com/ppc/0000/ppc0001.html
- The National Weather Service Storm Ready website at http://www.weather.gov/stormready/howto.htm
- The National Firewise Communities website at http://firewise.org/

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate or High) based upon best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, please indicate your obstacles?)*	Moderate	High
Planning and Regulatory Capability	Limited Staff		
Administrative and Technical Capability	Limited Staff		
Fiscal Capability	Limited Staff		
Community Political Capability	Limited Staff		
Community Resiliency Capability	Limited Staff		
Capability to Integrate Mitigation into Municipal/Tribal Processes and Activities.	Limited Staff		

**Example obstacles:*
- *Limited staff; Few people have numerous roles/responsibilities*
- *Not aware of FEMA mitigation funding sources*

The City of Paxton has an interlocal agreement with Walton County therefore, Paxton has adopted the County Plan.

WALTON COUNTY HAZARD MITIGATION PLAN UPDATE
Worksheet #3 – NFIP Floodplain Administrator Questionnaire

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: City of Paxton

NFIP Floodplain Administrator Name/Title: Hayward Thomas, Mayor

Flood Vulnerability Summary

1. Does the community maintain lists/inventories of properties that have been flood damaged? If so, does this inventory identify property owners who are interested in mitigation (e.g. elevation, acquisition)? No list

2. Characterize/quantify the number of structures damaged during past events. If possible, can you provide a table of these structures indicating the number of residential / commercial / industrial? zero

3. Do you make Substantial Damage estimates? zero

4. How many are interested in mitigation (elevation or acquisition), and how many are currently in the process of mitigation? none

5. What is the funding source(s) for those being mitigated (e.g. property owner, flood insurance and ICC, grant funding)? n/a

Resources

6. Are you the sole person assuming the responsibilities of floodplain administration, or do you have other staff or use contract staff if needed?

7. Provide an explanation of the NFIP administration services and functions you and your department provide (e.g. permit review, inspections, damage assessments, and record-keeping, GIS, education and outreach).

8. Do you provide any education or outreach to the community regarding flood hazards/risk, and flood risk reduction through NFIP insurance, mitigation, etc.? Please describe.

9. Are there any barriers to running an effective floodplain management program in your community?

10. Do you feel that you are adequately supported and trained to fulfill your responsibilities as the floodplain administrator?

11. Would you consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators?

Compliance History

12. Is the community in good-standing in the NFIP? If not, what are the outstanding compliance issues?

13. When was the most recent compliance audit [e.g. Community Assistance Visit (CAV)]?

Regulatory

14. Does your floodplain management regulations/ordinances exceed the FEMA and State minimum requirements?

15. Are there other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?

16. Has the community considered joining (or rejoining) the Community Rating System (CRS) program to reduce flood insurance premiums for their insured? If so, would your community attend a CRS seminar if offered locally?

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #4 – Community Action Review

Questions?
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

Municipality/Tribe ____*City of Paxton*_____

Who can provide you information about past mitigation actions: See the 'Responsible Party' column in the table below which identifies who put this action in the 2015 Local Mitigation Strategy (LMS) (e.g., DPW, Engineer, Code Official, Planner, EM Director).

Please use the following table to indicate progress and next steps on your community's mitigation strategy identified in the 2015 LMS. Please be as detailed as possible.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.
Example: *Elevate Main Street Bridge*	*Department of Public Works*	*No Progress*	*1. 0% complete* *2. Budget and personnel constraints have restricted this action from moving forward* *3. No funding secured*	*Include in 2020 LMS*	*1. Elevate Main Street Bridge above the base flood elevation.* *2. (If you chose 'Discontinue,' here is an example: The Town does not have the authority to retrofit this bridge; it is owned by the State.*
Updating Waste Water Treatment plan	Paxton Utilities	In Progress	1. P.E.R. complete 2. Grant awarded – CDBG Grant 3. Construction in progress	Discontinue	Project should be complete by fall 2020
Relining man holes	Paxton Utilities	No progress	1. 0% complete 2. Budget constraints prevent us from moving forward. 3. No funding	Include	Reline all man holes to alleviate infiltration into the sewer system.
Shelter	City of Paxton	In Progress	1. Funding application process begun 2. In conjunction with Walton County 3. No funding secured 4. Budget constraints prevent us from moving forward.	Include	Fully construct new City Hall building to include a storm shelter to house up to 70 people.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: City of Paxton

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. We would like to gather an understanding of your community's progress in plan integration, as well as identify potential integration opportunities that your community may pursue in the future.

Who can assist with completing this table: The HMP main point of contact should discuss with the Engineer, Clerk, Mayor/Administrator, Planner, Chief Financial Officer, Building Code Official, NFIP Floodplain Administrator

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Planning	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments (ZBA)	Does your community have a Master/Comprehensive Plan (land-use plan), or are you currently working on an update of your Master/Comprehensive Plan? Yes If so, does it include, or are you considering, areas of natural hazard risk (e.g. flood-prone areas, steep slopes)? Yes Does your Master/Comprehensive plan refer to the local or Countywide Local Mitigation Strategy? Yes
Planner (staff or contract); Stormwater Manager	Do you have a formal Stormwater Management Plan? If so, does this plan specify projects/actions/initiaives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding?
Planner (staff or contract)	Does your community have any of the of the following plans, and if so, please specify if and how they help to manage natural hazard risk? • Re-Development Plan • Growth Plan • Economic Development Plan • Open Space Plan • Watershed or Stream Corridor Management Plan • Local Waterfront Revitalization Plan

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
All departments	Does your community or Department have a Continuity of Operations/Continuity of Government (COOP/COG) plan(s) that will serve to protect your local government and operations from natural hazard disruptions? No
Emergency Management Coordinator	Does your community have a Comprehensive Emergency Management Plan? Does it refer to the LMS? Yes
Planner (staff or contract); OEM	Does your community have a Post-Disaster Recovery Plan, or Strategic Recovery Plan? Does it refer to the LMS? Does it include specific mitigation projects and activities?
Regulatory	
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	Does your zoning and subdivision regulations, and/or site plan review process, consider natural hazard risk (e.g. the presence of floodplains, steep slopes, etc.)?
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	What data, information, tools and resources is your Planning Board and/or ZBA provided to guide their decisions with respect to natural hazard risk mangement, and what other resources would assist this process?
Planning Board; Zoning Board of Adjustments: Planner (staff or contract	Does your municipal zoning and subdivision regulations, and/or site plan review process, require developers to take additional actions to mitigate natural hazard risk (e.g. undergrounding utilities, stormwater detention, creating easements in areas/zones of hazard risk)?
NFIP Floodplain Administrator (specified in your Flood Damage Prevention Ordinance); Building Code Official	Does your NFIP Flood Damage Protection Ordinance include provisions that exceed the minimum Federal and State NFIP regulatory requirements (e.g. increased freeboard, cumulative substantial damages)?
Administrative / Technical Resources and Programs	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments	Do you have a planner or contract planning firm, and what are their functions with respect to natural hazard risk reduction? Yes, planner is contracted. Basic land reviews and development plans
Planning Board; Zoning Board of Adjustments	Do you have a Planning Board and/or Zoning Board of Adjustments, and what are their functions with respect to managing natural hazard risk and compliance with related natural hazard regulations (Federal, State and local ordinances) and plans (Master/Comprehensive Plan, Stormwater Management Plans, Local Waterfront Revitalization Plans)? No

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Mayor, Administrator, Clerk, Council/Committee	Do you have any other Boards or Committees that include functions with respect to managing natural hazard risk? No
Stormwater Manager, Mayor, Administrator, Council/Committee	Who performs the Stormwater Management functions in your community (name and position, or contractor)?
Mayor, Administrator, Clerk, Council/Committee	Who performs the NFIP Floodplain Management functions in your community (name and position)?
Engineering, Building Department/Code Officials	Do you have staff, or do you contract with firms, that have experience with developing Benefit-Cost Analysis? No
Building Department/Code Officials	Do you have staff, or do you contract with firms, who can perform Substantial Damage Estimates? No
Mayor, Administrator, Clerk, Chief Financial Officer	Do you have staff, or do you contract with firms, that have experience in preparing grant applications for mitigation projects? Yes
All Departments	Does your staff get training or continuing professional education which supports natural hazard risk reduction? No
All Departments	Can you identify areas that your staff would benefit from additional training and/or certification with respect to natural hazard risk management? All
Mayor, Administrator, Clerk, DPW	Do you have other hazard mangement programs in place such as vegetation management? No
All Departments	Do any of your staff have job descriptions that specifically include identifying and/or implementing mitigation projects/actions or other efforts to reduce natural hazard risk? No
All Departments	Do any of your staff or Departments participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities? (e.g. building code officials groups, LEPCs, flood task forces, etc.)? LMS
Public Education and Outreach	
Mayor, Administrator, Clerk	Please describe any public outreach mechanisms/programs you have in place to inform citizens on natural hazards (e.g. safe use of generators, emergency preparedness, flood hazard information).
Mayor, Administrator, Clerk	Can you identify any enhancements that would promote further public outreach and education in your community with respect to natural hazard risk management?
Fiscal Resources	
Mayor, Council/Committee, Administrator, CFO	Does your municipal/operating budget include line items for mitigation projects/activities? No
Mayor, Council/Committee, Administrator, CFO	Does your community have a Capital Improvements Budget, and does it include budget for mitigation-related projects (e.g. improved stormwater management/drainage, hardening of critical facilities and infrastructure)? Yes, capital improvements. No mitigaiton-related projects
Mayor, Council/Committee, Administrator, CFO	Has your community pursued or been awarded grant funds for mitigation-related projects, and if so, for each please identify the project, funding source, amount of funding, and if local matches were required and how they were met? Yes, wind retrofitting of Paxton Town Hall, 2016, $250,000.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Mayor, Council/Committee, Administrator, CFO	Does your community have any other mechanisms to fiscally support hazard mitigation projects? No

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: City of Paxton

Please indicate any recent development within your community from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in your community.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					
Paxton Utilities	Community	Infrastructure	anticipated	Water utilities service	Upgrade water lines to ensure quantity and quality
Paxton Utilities	Community	Infrastructure	anticipated	Sewer Service	Relining man holes to prevent infiltration
City of Paxton	Community	Structure	Anticipated	Professional complex	Multi-unit professional building – Economic Development
City of Paxton	Community	Structure	Anticipated	Health Clinic	Permanent structure to house the Health Department Annex and/or Health clinic
City of Paxton	Community	Structure	Anticipated	City Hall/Storm Shelter	Replace current City Hall with new structure to include a storm shelter.

Known or Anticipated Development in the Next Five (5) Years					

Walton County Local Mitigation Strategy Update 2020

Appendix E: Development Trends

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – County Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Walton County, Florida

Please indicate any recent development within the County from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in the County.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					

Known or Anticipated Development in the Next Five (5) Years					
Bay Walton Sector Plan DSAP -1					
Walton County Mobility Plan Projects (Pending Approval)					

MASTER PROJECT LIST

Project Name	DO Number	Build-Out	Build-Out Infrastructure	Project Type	Units/ Sq Ft	
Multi-Tenant Building Topsail West	MIN19-000058	0%				
Basin Bayou Estates	MIN19-000013	0%			6 Units	AE 8, AE 9, VE9, VE 10
Jars Cove	MIN20-000006	0%				
ZAC Business Plaza	MIN19-000041	0%				
Sweetwater Lane RV Park	MAJ19-000032	0%				
Walton's Landing	MAJ19-000017	0%				
Force Capital Complex	MAJ19-000019	0%				
The Cove at Santa Rosa Beach	MIN19-000051	0%				
Association	LTM19-000035	0%				
Coursey Garden Center	MIN19-000050	0%				
Dubuisson Commercial	MIN19-000022	0%				
Sea Croft Cottages	MIN19-000047	0%				
Topsail West Restaurant	MIN18-000027	0%				
La Bella Vita Estates	MIN19-000025	0%				
Sea Drift Subdivision	MAJ19-000018	0%				
Greenway Station LTM	LTM19-000039	0%				
Shunk Gulley Phase II	MIN19-000030	0%				
Martha's Lane Condominiums	MIN19-000034	0%				
High Five - Topsail West Phase 2A	MIN19-000028	0%				
Sandestin Market Shops E2 Change	15-02200005	100%				
ROEHM LANDSCAPE / NURSERY SITE	15-00100143	100%				
Lots 11-13 South Walton Business Center	15-00100104	0%				
Goldsby Business Park Development	15-00100119	33%				
Royster General Dynamics	15-00100135	100%				

Marthas Lane Townhomes	14-00100075	0%
Miramar Beach Mattress Firm	15-00100097	100%
Gulfplace Retreat	15-00100089	80%
Hardees	15-00100065	100%
Seagrove Village Market	15-00100114	100%
Resurrection Church- Parish Life Center	15-00100115	100%
Artisan Square	14-00100243	0%
Sunset Key Cottages	15-01300019	0%
The Woods Subdivision Phase III	15-00100070	0%
Crossings at Inlet Beach Phase 2	15-00100071	100%
Lot 8 Neally Business Center	15-00100063	100%
Arbor Lane Home and Salon	15-00100058	100%
Quattour Development	15-00100025	0%
Urban Grace Interiors	15-00100050	100%
Fayard Mini Storage	15-00100024	100%
Lofts at Seacrest	15-00100006	100%
Quatre Maison Subdivision	15-00100021	0%
395 Subdivision	14-00100221	0%
Gailey Estates	14-00100176	0%
Winston Townhomes	14-00100132	0%
Hidden Palm Subdivision	14-00100157	0%
Lot 9 Coastal Business Center	14-00100212	100%
South Wall Street Subdivision	14-00100213	20%
Midgrove Centre PUD	14-00100196	0%
The Regal at Seagrove	14-00100199	0%
FWC Storage	14-00100056	0%
Shop	14-00100166	100%
Carson Oaks Phase II	14-00100092	40%

Sharuff Building	14-00100084	100%
283 Self Storage	14-00100038	0%
Trejam	14-00100034	100%
Miramar Beach Dental Office	14-00100013	100%
30A Resort Subdivision	14-00100009	35%
City Produce	13-00100114	0%
Chateau 30A	14-00100002	0%
Ridgewalk	13-00100106	5%
Inlet Beach Commons	13-00100047	100%
Somerby of Santa Rosa Beach	13-00100052	100%
Bunker Cove	13-00100044	20%
Duncan 4 Lot Subdivision	13-00100048	100%
Compass Rose Academy	13-00100014	100%
Uptown Plaza	13-00100003	0%
Dunes Crossing	13-00100025	60%
30 Avenue	13-00100018	95%
A Stones Throw	13-00100008	33%
Donut Hole at Inlet Beach	12-00100054	100%
Spyglass Hill	12-00100052	100%
Old Seagrove Village	12-00100028	60%
New Office for Mooney Bonding Agency	13-00100002	0%
Inn at the Gulf	14-01300015	100%
Miramar Self Storage, LLC	12-00100040	100%
Murphy Express	12-00100029	100%
Thompson Woods Phase II-IV	10-00100028	0%
Topsail Apartments	12-00100011	100%
Inlet Beach Lot Split	12-00100014	50%
South Beechview Estates	11-00100029	40%

Dollar General (.2 mile west of 393 on 98)	11-00100030	100%
Gulfside Trail Rides	11-00100022	100%
Emerald 98 Veterinary Clinic	11-00100021	100%
Bullets and Bones Sportsman Club	11-00100017	100%
Lakewood Development 1st Amendment	11-00100012	100%
Park Avenue West	11-00100006	0%
The Driftwood Restaurant	11-00100005	100%
Dollar General-Scenic Corridor Hwy. 98	11-00100004	0%
Davis Properties Office Building	11-00100002	100%
723 Whiskey Bravo	10-00100023	100%
Flora Beach (PUD)	10-001-00018	0%
Topsail West PUD - Phase 1 - Wal-Mart	09-001-00043	100%
Caring & Sharing - Magnolia Street - DFS	10-001-00004	100%
Lupin Conceptual PUD	09-001-00046	0%
D & H Sand Pit	08-017-00001	100%
Magee Industrial Park Addition	09-001-00040	100%
SRB Community Church Add	09-001-00038	100%
Churchill Bayou Preserve	09-001-00028	100%
Arbours at Shoemaker Place	09-015-00004	100%
El Mercadito Restaurant	09-015-00005	100%
O'Reilly's Auto Parts	09-001-00003	100%
First United Methodist Church Daycare	09-015-00002	100%
Pizza Place Change of Use	09-020-00004	100%
Topsail West PUD	09-001-00011	34%
US 331 Plaza	08-015-00002	100%
Change of Use	09-020-00002	100%
Portland Self Storage	08-001-00069	100%
Boys and Girls Club	09-001-00002	100%

First Baptist Church of Liberty	08-013-00034	100%	
Microspine Medical Facility	08-015-00004	100%	
New Harmony Baptist Church	08-001-00060	100%	
Alys Beach PUD Amendment 3	08-001-00053	0%	
Walton County Apartments	08-001-00055	0%	
Florida Transformer Phase IV	08-001-00044	0%	
Florida Transformer Phase III	08-001-00044	0%	
Florida Transformer Phase II	08-001-00044	0%	
Florida Transformer Phase 1	08-001-00044	100%	
Saint Rita Catholic Church	08-001-00048	30%	
Topsail Plaza Conceptual PUD - Phase VI	08-001-00047	0%	
Topsail Plaza Conceptual PUD - Phase V	08-001-00047	0%	
Topsail Plaza Conceptual PUD - Phase IV	08-001-00047	0%	
Topsail Plaza Conceptual PUD - Phase III	08-001-00047	0%	
Topsail Plaza Conceptual PUD - Phase II	08-001-00047	0%	
Topsail Plaza Conceptual PUD - Phase I	08-001-00047	0%	
Utility Solutions Group Warehouse (DFS)	08-015-00003	100%	
Southwide Baptist Church	08-001-00040	100%	
Lake Place & Stinky's Fish Camp	08-001-00027	100%	
Mossy Head Dollar General	08-001-00022	100%	
First Christian Academy DDFS	08-015-00001	100%	
Tom Thumb US 331 Phase II	08-001-00015	0%	
Tom Thumb US 331 - Phase I	08-001-00015	0%	
Sandestin DRI	08-001-00011A	81%	
208/308	08-001-00011	95%	100%
Red Hill Valley Estates	08-001-00009	100%	0%
Trout Branch Industrial Park Amend.	07-001-00015	11%	0%
Horn Change of Use	08-020-00002	100%	0%

Pines	07-001-00108	100%	0%
Ten 8 Fire Equipment	07-015-00012	100%	0%
Walton Plantation	07-001-00094	0%	70%
Publix Shopping Center	07-001-00082	80%	0%
Fresenius Medical Clinic	07-015-00011	100%	0%
Fawaz Medical & Surgery Clinic	07-015-00010	100%	0%
Biophillia Center Expansion	07-001-00073	100%	0%
Olney Garden Center	07-001-00070	100%	0%
Emerald Cove Conceptual PUD	07-001-00064	0%	5%
Mossy Head Sand and Mine	07-017-00001	100%	90%
Gredan Acres Subdivision	07-001-00059	0%	0%
Lowe's of Defuniak Springs	07-015-00008	100%	0%
Victory Lighthouse Church	07-001-00055	0%	
Topsail State Preserve	07-001-00054	100%	0%
Destiny Worship Center	07-001-00053	100%	0%
Assisi Villas PUD (Phase I)	07-001-00052	0%	0%
Banktrust	07-015-00005	100%	0%
Comfort Inn	07-015-00001	100%	0%
Walton County Health Department	07-015-00004	100%	30%
Prominence DRI Phase IIA	07-001-00039	25%	75%
Pankey Mini-Storage	07-001-00035	15%	0%
Stables at Sandy Pines	07-001-00032	16%	20%
Seashells on the Beach PUD Amendment	07-013-00021	**100%**	**0%**
Seascape DRI	07-001-00029	80%	100%
Emerald Bay DRI NOPC	06-001-00137	56%	100%
Ciboney Beach Plaza	07-001-00023	0%	0%
Sutton Place	07-001-00022	**0%**	**0%**
Stonegate Subdivision	17-00100003	0%	0%

Facility)	07-001-00020	100%	10%
Heron's Landing	07-001-00012	0%	0%
Point of View East (Phase II)	07-001-00004	100%	0%
Point of View East (Phase I)	07-001-00004	100%	0%
Churchill Oaks PUD	06-001-00135	10%	0%
Inlet Beach Bungalows	06-001-00131	22%	85%
Biophilia Center	06-001-00129	100%	0%
Estates	06-001-00123	0%	0%
Villa Burago	06-001-00122	0%	25%
Toscanna fka Sienna Place	06-001-00121	**0%**	**0%**
Osprey Bay Retreat fka Azar Village	06-001-00118	**0%**	**0%**
West Shore Phase II	06-001-00109	0%	0%
Forest View (Amendment)	06-001-00108	0%	0%
Cowford River Resort	06-001-00103	0%	0%
Cypress Dune Commercial	06-001-00096	0%	0%
Cowford Resort PUD	06-001-00102	0%	0%
Inlet Retreat PUD	06-001-00101	0%	0%
Towncenter at Black Creek	06-001-00100	0%	0%
Community Plaza	06-013-00035	80%	100%
Sunrise Village (Phase I)	06-001-00094	0%	0%
Coastal Auto Services Garage Addition	06-001-00092	100%	0%
Walton County Industrial Park PUD	06-001-00082	86%	0%
Cowford Farms Estates	06-001-00089	16%	0%
Endless Summer PUD	06-001-00086	**100%**	**100%**
Crest Bay Cottages (Phase II)	06-001-00076	0%	0%
Junema Estates fka Happy Hollow	06-001-00073	45%	0%
Harbourmist Green	06-001-00072	0%	0%
Cowford Farms	06-001-00070	0%	0%

Lafayette Creek Estates	06-001-00067	**0%**	**0%**	
Draper Pointe	06-001-00066	0%	0%	
Washington Crossing	06-001-00063	0%	0%	
Bayou View	06-001-00061	25%	0%	
County Road 30A Townhomes	06-001-00053	0%	0%	
Tango-Mar Estates	06-001-00037	0%	0%	
Mossyhead Mini Storage	06-001-00036	0%	0%	
Sawmill Court (Phase I)	06-001-00040	7%	25%	
Prominence DRI (Phase I)	06-001-00035	**100%**	**0%**	
Marathon Village	06-001-00031	0%	0%	
Juniper Trace	06-001-00028	80%	100%	
Comminsky Property	06-001-00024	100%	0%	
Draper Lake PUD	06-013-00001	5%	100%	No DO; No Eng Approval
Hidden Palms	05-001-00047	0%	10%	
E-Scape	06-001-00021	40%	90%	
Indian Oaks	06-001-00018	100%	0%	
Waterfalls by the Bay (Phase II)	06-001-00016	0%	0%	
Equestrian and River Resort	10-001-00016	0%		
Cottages at 393 South	06-001-00009	0%	0%	No DO
Bear Creek PUD	06-001-00006	0%	0%	
Forest Grove	06-001-00004	0%	0%	No DO
Enchated Place	06-001-00003	**100%**	**0%**	
Cottages at Bayou Forest	05-001-00184	0%	0%	No DO
Preserve at Mallet Bayou	05-001-00173	0%	0%	No DO
Sago Place fka Satinwood Place	05-001-00040	65%	100%	Platted 9/5
South Walton Business Center Expansion	05-001-00201	80%	100%	
Topsail Walk Subdivision	05-001-00074	85%	100%	
Palm Gardens Subdivision	04-000-00253	10%	100%	Plated 8/2/6

South Walton Business Center PUD	1363	85%	100%	
Shifting Sands	04-000-00241	100%	0%	Plat Recorded
Waterview Cove S/D Phase II	1090	85%	100%	
Cypress Dunes Subdivision (Phase II)	04-000-00257	38%	100%	
Carson Oaks	1706	95%	100%	
Forest Park Subdivision	1692	70%	95%	
Beach	1689	50%	50%	
Preserve at Grayton Beach	1626	60%	100%	
Wild Dunes	1535	75%	100%	Platted
Villages at Seagrove PDA aka Watercolor	1512	85%	100%	
Mallet Bayou Subdivision	1421	75%	100%	Infrastructure Complete 5/2003
Church Street Village PUD	1396	75%	75%	
Blue Mountain Beach Ind Park	1393	25%	10%	
Santa Rosa Village Ph II and III	1380	90%	100%	
Grand Isle	1375	**100%**	**100%**	Infrastructure Complete 6/13/3
Bayou Gardens Subdivision	1357	**66%**	**100%**	
Courtyard of Santa Rosa Beach	01-000-00362	**100%**	**0%**	
Dalton Place at Seagrove	1309	40%	100%	
Bear Creek Subdivision first addition	1240	5%	100%	
Russell Subdivision	1227	**75%**	**100%**	
Hemingways of SRB	1137	**50%**	**100%**	
Paradise Beach	1070	**75%**	**100%**	
Mill Pond Subdivision	1066	**75%**	**100%**	
Bayou Bend Subdivision	1052	**50%**	**100%**	
Gulf Place PUD Amendment	06-013-00023	**0%**	**0%**	
Wildwood Lakes Unit 3 PUD	06-001-00051	0%	20%	
Prominence PUD	04-000-00209	**100%**	**100%**	04-000-00113 PUD
Mack Bayou Ctr. Lot 10 aka MB Bus Ctr	06-001-00020	100%	10%	

Waterview at Inlet Beach	05-001-00195	100%	0%	
Bella Blue Inn at Miramar	05-001-00188	100%	0%	Not Started
Waterfalls by the Bay Phase I	05-001-00178	0%	0%	
South Place	05-001-00177	100%	90%	
Magnolia Cottages By the Sea Ph II	05-001-00163	0%	0%	No DO
Ciboney PUD, Phase II fka Hidden Palms	05-001-00161	0%	0%	Tech under review Jason
Downtown Seagrove	05-001-00158	**100%**	**0%**	No DO
Pinewood Preserve	05-001-00143	100%	100%	Almost Completed
Pt Washington United Methodist Church	05-001-00142	100%	5%	No DO
Church of Jesus Christ of Latter Day Saints	05-001-00141	100%	100%	No DO
Mack Bayou Townhomes	05-001-00137	0%	0%	
Caspian Estates	05-001-00121	35%	100%	Plat Stage
Water Oaks Subdivision	05-001-00112	95%	95%	
Mack Bayou Center, Lot 3	05-001-00108	0%	0%	Not Started
Naturewalk at Seagrove Amend PUD	05-001-00106	50%	100%	
Seacroft Preserve PUD Conceptual	05-001-00104	0%	0%	No DO
Frangista Beach 3rd Addition	05-001-00100	15%	90%	
Grove at Inlet Beach fka Inlet Beach Lot 92	05-001-00097	**0%**	**0%**	Under Construction
Driftwood Drive Townhomes	05-001-00096	2%	100%	Plat Stage
Miramar Fountains PUD	05-001-00093	100%	50%	No DO; Under Construction
Central Park South	05-001-00092	**0%**	**0%**	No DO; under review
Costa Carina	05-001-00090	75%	90%	Platted
Tops'l DRI NOPC request	05-001-00087	80%	100%	No DO
Seagrove Town Center Ph 1	05-001-00084	**100%**	**100%**	engineering
Summer Place	05-001-00080	100%	90%	
DMF CR 393 (Bay Nest PUD)	05-001-00079	100%	10%	No DO
Sandhill Pines	05-001-00075	**0%**	**0%**	No DO
Serenity PUD	05-001-00071	13%	90%	

Seashells on the Beach PUD	05-001-00067	100%	100%	
Sugar Sand Lane Subdivision	05-001-00066	75%	0%	Not Started
Cherokee Trail Subdivision	05-001-00064	100%	0%	Not Started
Beach Nest Condominium	05-001-00061	100%	100%	
Tindle Industrial Park	05-001-00060	0%	10%	
Gulf Cove of Seagrove	05-001-00059	100%	90%	Platted
Gulf Landing Development	05-001-00057	**75%**	**0%**	Under Construction
Villa Tasso Mini Mart	05-001-00056	100%	50%	Under Construction
Neighborhoods of Peach Creek	05-001-00053	0%	0%	Ext of Final Order BCC 11/28/6
Windsor Court	05-001-00050	0%	100%	
Alligator Point	05-001-00049	0%	0%	Plat Stage
Sundance Subdivision	05-001-00046	35%	10%	No DO
Oaks at Eden	05-001-00045	100%	95%	Plat Stage
Coastal Business Center Lot 5	05-001-00044	100%	10%	Previously Approved PUD
Gulf Reflections aka Pilcher Cottages	05-001-00043	90%	100%	Platted 2005
Coastal Dunes	05-001-00042	100%	100%	
Preserve at Inlet Beach	05-001-00039	25%	100%	Platted 10/5
Pine Trace	05-001-00032	40%	95%	
Osprey Creek fka Bridges at Inlet Beach	05-001-00030	0%	40%	
Woodlawn Business Park	05-001-00025	**0%**	**0%**	No DO; Plat accepted 8/9/5
Watersound North PUD	05-001-00022	20%	80%	
Harstvedt Place	05-001-00020	74%	90%	
West Shore Place	05-001-00018	95%	90%	Under Construction
Forest View Village PUD	05-001-00016	0%	0%	
West Beach aka The Pines PUD	05-001-00011	100%	90%	
Heron at Inlet Beach	05-001-00010	66%	75%	No DO
Peach Creek Subdivision	05-001-00008	60%	20%	
Mack Bayou Center, Lot 2	05-001-00007	0%	0%	Not Started

Eagle Bay Landing	05-001-00006	0%	33%	Under Construction
Windsor Estates	05-001-00004	100%	90%	
Coastal Grove	04-002-00002	50%	90%	No DO
Heron Trace PUD	04-001-00012	0%	0%	Technical under review
Tranquility by The Bay	04-001-00011	54%	100%	No DO; Platted in 2005
Mack Bayou Center, Lots 4&5	04-001-00005	100%	75%	No DO
Mosaic Oaks Subdivision	04-001-00004	100%	100%	Platted
Inlet Beach Lot 54	04-001-00003	100%	100%	Platted
Inlet Heights	04-001-00001	**100%**	**0%**	
Summer Haven	04-000-00283	**100%**	**100%**	No DO
Treasure Trove Estates	04-000-00271	21%	0%	No DO
Blue Lagoon Subdivision	04-000-00270	100%	0%	No DO
Grande Point at Inlet Beach	04-000-00246	25%	100%	No DO; Plat Recorder 6/5
Heron Crossing	04-000-00242	**50%**	**90%**	
Blue Mountain Beach Business Center	04-000-00237	0%	0%	Not Started; Not Platted
Pompanoe Place on Orange	04-000-00229	40%	100%	Plat Recorded, No DO
Cottages at Seagrove	04-000-00227	20%	100%	
Village at Blue Mountain Beach Phase III	04-000-00215	45%	100%	
Ciboney PUD fka Hidden Palms Subdivision	04-000-00212	0%	5%	No record of DO issued; built
Miramar Court Subdivision	04-000-00211	100%	80%	Plat Stage
PUD	04-000-00208	0%	0%	No Plat; DO not issued
735)	04-000-00206	90%	75%	
Topsail Village Phase II	04-000-00171	50%	75%	
Starview Terrace	04-000-00168	25%	90%	Plat Stage;06-013-00052
Rileys Bayview	04-000-00163	25%	100%	Platted; final inspection
Hope Lutheran Church	04-000-00162	100%	0%	No Inspection
The Landings Shopping Center	04-000-00139	100%	40%	
Homes	04-000-00138	25%	85%	

Lakewood Development PUD	04-000-00134	100%	95%	
Business Park	04-000-00131	40%	100%	
Shadow Pines	04-000-00129	25%	100%	Platted
Chateaux De Paris	04-000-00119	0%	50%	Platted
Blackstone Estates aka Blackstone PUD	04-000-00110	10%	10%	No DO
Cypress Breeze Phase IV	04-000-00108	90%	100%	No DO
Old Florida Village Ph 2	04-000-00106	0%	50%	
Washington	04-000-00096	13%	100%	
Shoppes of Miramar Beach Villas	04-000-00094	100%	90%	
Eagle Bay PUD	04-000-00095	100%	90%	
Alys Beach fka Somerset Beach	04-000-00090	80%	100%	
Eden's Landing PUD	02-001-00002	0%	100%	Plaated
Plantation at Santa Rosa	04-000-00080	100%	100%	Platted
Lakeside at Blue Mountain Beach PUD	04-000-00079	30%	100%	
Rosewood of Seacrest fka Treetops PUD	04-000-00047	10%	100%	12/12/6
Seanest Village Ph 2	04-000-00034	60%	100%	
393 North Business Park	04-000-00018	50%	90%	
Highland Parks @ Blue Mountain Beach	04-000-00014	70%	90%	No DO
South Walton Commerce Park PUD	04-000-00002	15%	100%	
Brandon Oaks 2nd Addition	03-001-00003	87%	100%	
Highlands at Seagrove Beach Ph 1	03-000-00020	100%	100%	
Park Place at Inlet Beach	03-000-00011	55%	100%	No DO
Twin Lakes aka Windswept	03-000-00006	50%	80%	
Cottages of Walton Rose	03-000-00005	75%	100%	
Juniper Lake Subdivision	01-001-00003	90%	0%	In Lawsuit
Cessna Landing	01-000-00999	**10%**	**0%**	road in lots sold; Plat Recorded
Rosemary Beach DRI	194	90%	100%	

Permit#	Permit Type	Permit Name	Parcel ID
15-00100063	Major Development Order Application	LOT 8 NEALLY BUSINESS VILLAGE	35-2S-20-33300-000-0080
15-00100065	Major Development Order Application	HARDEE'S - SANTA ROSA BEACH	26-2S-20-33200-000-049A
15-00100067	Major Development Order Application	STOCK & TRADE DESIGN COMPANY	26-2S-20-33200-000-0480
15-00100070	Major Development Order Application	THE WOODS SUBDIVISION PHASE III	34-2S-19-24000-002-0000
15-00100071	Major Development Order Application	CROSSINGS AT INLET BEACH PHASE II	36-3S-18-16100-000-0730
15-00100072	Major Development Order Application	SOLDIER'S CANTEEN F/K/A OYSTR BAR	36-3S-18-16100-000-1660
15-00100090	Major Development Order Application	BUSBY DEPOT	22-3N-21-37000-012-0010
15-00100092	Major Development Order Application	SYDNEY PARK	33-2S-20-33260-046-0000
15-00100094	Major Development Order Application	PLEASANT VALLEY CHURCH COMMUNICATION TOWER	21-3N-17-06000-009-0000
15-00100097	Major Development Order Application	MIRAMAR BEACH MATTRESS FIRM	28-2S-21-42000-003-0040
15-00100099	Major Development Order Application	FOX LAKE RESIDENTIAL (FKA FOX LAKE PUD)	03-3S-20-34150-000-0080
15-00100104	Major Development Order Application	LOTS 11-13 SOUTH WALTON BUSINESS CENTER	27-2S-20-33800-000-0110
15-00100114	Major Development Order Application	SEAGROVE VILLAGE MARKET	14-3S-19-25000-004-0000
15-00100115	Major Development Order Application	RESURRECTION CHURCH-PARISH LIFE CENTER	28-2S-21-42000-018-0010
15-00100119	Major Development Order Application	GOLDSBY BUSINESS PARK DEVELOPMENT	25-2S-21-42340-000-0230
15-00100122	Major Development Order Application	CHURCH STREET LANDING 1ST AMENDMENT	27-2S-20-33210-000-0430
15-00100123	Major Development Order Application	WAREHOUSES OF SANTA ROSA BEACH PHASE II à F.K.A SUNDIAL PHASE II	34-2S-20-33270-007-0010
15-00100147	Major Development Order Application	HIGHLAND HOUSE B & B	02-3S-20-34160-000-0620
15-00100148	Major Development Order Application	HALCYON TOWNHOMES	32-2S-20-33000-005-0000
15-00100150	Major Development Order Application	KAIYA PUD	27-3S-18-16000-002-0000
15-00100153	Major Development Order Application	HOLIDAY BEACHSIDE CENTER	30-2S-21-42290-000-1050
15-00100154	Major Development Order Application	MCDONALDS	30-2S-21-42000-001-0014
15-00100159	Major Development Order Application	SEVEN PALMS AT INLET BEACH	36-3S-18-16100-000-1410
15-00100160	Major Development Order Application	SOUTHERN PINES SUBDIVISION	24-2S-20-33180-000-0520
15-00100168	Major Development Order Application	DIXIELECTRICAR OF DESTIN	34-2S-20-33270-031-0003
15-00100170	Major Development Order Application	SUGAR SANDS ESTATES	33-2S-20-33260-023-0000
15-00100187	Major Development Order Application	NICEVILLE HIGH SCHOOL ROBOTICS LAB WAREHOUSE	30-1S-21-41100-043-0010
15-00100189	Major Development Order Application	ARNETT FARMER'S MARKET	34-2S-20-33270-006-0000
15-00100198	Major Development Order Application	DR. PATTON PRIMARY CARE SOUTH	32-2S-20-33250-000-0321
15-00100201	Major Development Order Application	VILLAGE STATION	01-3S-20-34000-009-0070
15-00100202	Major Development Order Application	EMERALD SANDS SUBDIVISION	36-3S-18-16100-000-1740
15-00100206	Major Development Order Application	SUMMER HOUSE BED & BREAKFAST	36-3S-18-16100-000-0950

15-00100212	Major Development Order Application	SURFSONG ESTATES	30-2S-21-42811-001-0000
15-00100216	Major Development Order Application	HENSHAW SUBDIVISION	04-3S-20-34000-011-0000
15-00100218	Major Development Order Application	SOUTHERN TIRE MART	28-3N-21-37000-006-0013
16-00100001	Major Development Order Application	PUBLIX EXPANSION AT WATERCOLOR CROSSINGS	14-3S-19-25401-000-0040
16-00100009	Major Development Order Application	AZLAND CLASS III LANDFILL	06-1N-18-08000-004-0010
16-00100012	Major Development Order Application	GOOD NEWS UNITED METHODIST CHURCH EXPANSION	33-2S-20-33260-033-0003
16-00100013	Major Development Order Application	ELECTRIC CART COMPANY- MAJ	29-2S-20-33000-017-0000
16-00100032	Major Development Order Application	EMERALD COAST BUSINESS CENTER - LOT 10	29-2S-21-42100-000-0100
16-00100034	Major Development Order Application	GRAND BOULEVARD - HYATT PLACE	26-2S-21-42000-001-0052
16-00100035	Major Development Order Application	GRAND BOULEVARD - BUILDING T	26-2S-21-42000-001-0050
16-00100036	Major Development Order Application	YOLO BOARD DISTRIBUTION	26-2S-20-33200-000-0481
16-00100037	Major Development Order Application	CULVER'S RESTAURANT	30-2S-21-42000-001-0017
16-00100046	Major Development Order Application	NEW BAMA STEEL	05-3S-18-16010-000-0320
16-00100048	Major Development Order Application	COSTA BLANCA	03-3S-20-34000-022-00B0
16-00100055	Major Development Order Application	GULF PLACE PUD AMENDMENT	03-3S-20-34000-022-0014
16-00100069	Major Development Order Application	TOPSAIL WEST PUD OVERLAY	29-2S-20-33000-050-0000
16-00100070	Major Development Order Application	PANHANDLE RENTAL COMPANY-MAJ	35-2S-20-33280-000-0324
16-00100071	Major Development Order Application	GULF PLACE 19 & 20 CONDO LAYOUT	03-3S-20-34000-022-0014
16-00100072	Major Development Order Application	INDIAN WOMAN ROAD SUBDIVIDE LOT	14-2S-20-33150-000-0451
16-00100073	Major Development Order Application	PIPER'S PLACE	30-2S-21-42290-000-0930
16-00100075	Major Development Order Application	BRENTWOOD SUBDIVISION	02-3S-20-34160-000-0540
16-00100080	Major Development Order Application	MUSSETT BAYOU SUBDIVISION	28-2S-20-33220-000-0340
16-00100081	Major Development Order Application	DALTON DRIVE COMMERCIAL	24-3S-19-25030-005-0070
16-00100083	Major Development Order Application	GOLDSBY ROAD COMMERCE PARK	30-2S-20-33230-000-0540
16-00100084	Major Development Order Application	EXECUTIVE BUSINESS COMPLEX	28-2S-21-42000-027-0010
16-00100086	Major Development Order Application	TREASURE TROVE ESTATES PH 2 & 3	19-2S-20-33020-00A-0130
16-00100089	Major Development Order Application	AMY WRIGHT LOT SPLIT	28-2S-21-42280-000-0120
16-00100090	Major Development Order Application	MILLER'S CROSSING	30-2S-19-24000-009-0000
16-00100097	Major Development Order Application	STOCK & TRADE DESIGN CO. REDESIGN	26-2S-20-33200-000-0480
16-00100108	Major Development Order Application	HBC MIXED USE DEVELOPMENT	27-2S-20-33210-000-0150
16-00100109	Major Development Order Application	CEFCO CR393 & US98	27-2S-20-33210-000-0150
16-00100122	Major Development Order Application	CHIRINGO	08-3S-19-25030-004-0010
16-00100126	Major Development Order Application	FED-X MOSSY HEAD	27-3N-21-37000-001-0020
16-00100128	Major Development Order Application	PAYNE STREET SUBDIVISION	30-2S-21-42290-000-0580

16-00100130	Major Development Order Application	BAYOU BREEZE WAREHOUSE	36-2S-20-33290-000-0030
16-00100132	Major Development Order Application	SAN ROY ROAD LOT SPLIT	19-3S-18-16080-000-0130
16-00100133	Major Development Order Application	MAUER LOT SPLIT	02-3S-20-34160-000-0370
16-00100139	Major Development Order Application	JAMIRA COMMERCIAL	30-2S-21-42290-000-1290
16-00100141	Major Development Order Application	EMERALD COAST BUSINESS CENTER WEST	29-2S-21-42000-010-0000
16-00100142	Major Development Order Application	MEYER'S PARK	27-2S-20-33210-000-0050
16-00100149	Major Development Order Application	SEA 30-A PLACE	35-2S-20-33280-000-0590
16-00100155	Major Development Order Application	MCCLEAN SPOOKY LANE	02-3S-20-34160-000-0731
16-00100156	Major Development Order Application	LOT 2 COASTAL BUSINESS CENTER	30-2S-20-33500-000-0020
16-00100167	Major Development Order Application	WALL & PALM COMMUNITY	36-3S-18-16100-000-0460
16-00100169	Major Development Order Application	LAKEVIEW SUBDIVISION	34-2S-20-33270-058-0000
16-00100170	Major Development Order Application	MARINER'S	24-2S-21-42000-011-0020
16-00100172	Major Development Order Application	FLORA BEACH	36-3S-18-16100-000-2470
16-00100173	Major Development Order Application	CASSINE STATION PUD AMENDMENT	24-3S-19-25000-017-00A1
16-00100176	Major Development Order Application	BAYVIEW ESTATES	19-2S-21-42000-005-0000
16-00100189	Major Development Order Application	NORWOOD DRIVE DUPLEX	33-2S-21-42000-017-0010
16-00100190	Major Development Order Application	CENTRAL STORAGE	19-1S-20-32200-000-0100
16-00100191	Major Development Order Application	WATERFALLS BY THE BAY	20-2S-20-33300-000-0050
16-00100192	Major Development Order Application	CR83 BUSINESS STORAGE PHASE II	36-2S-20-33290-000-0100
16-00100201	Major Development Order Application	LOT 16 SOUTH WALTON COMMERCE PARK	05-3S-18-16010-000-0160
16-00100202	Major Development Order Application	INDIAN WOMAN SUBDIVISION	14-2S-20-33150-000-0440
16-00100204	Major Development Order Application	LOT 13 SOUTH WALTON COMMERCIAL PARK	05-3S-18-16010-000-0130
16-00100206	Major Development Order Application	ROLLING DUNES	12-3S-20-34050-000-0120
16-00100208	Major Development Order Application	SOUTHLAND BUILDING	19-3N-19-19768-00V-0720
16-00100209	Major Development Order Application	"BAY GROVE BUSINESS PARK LOTS 19, 20, 21, 22"	34-1S-19-23041-000-0190
16-00100213	Major Development Order Application	CRAFTMAN'S COVE SUBDIVISION	14-2S-20-33150-000-0380
16-00100214	Major Development Order Application	HOLLY BAY ESTATES	30-2S-19-24000-033-0000
16-00100223	Major Development Order Application	CYPRESS DUNES COMMERCIAL MAJ	32-2S-20-33000-005-0010
16-00100228	Major Development Order Application	MIRAMAR INN & SUITES	30-2S-21-42000-001-0000
16-00100233	Major Development Order Application	TOPSAIL WEST PUD AMENDMENT WAL-MART	30-2S-20-33230-000-001D
17-00100003	Major Development Order Application	STONEGATE SUBDIVISION	30-2S-20-33230-000-0400
17-00100010	Major Development Order Application	BEACHWOOD ESTATES	33-2S-20-33260-046-0000
17-00100011	Major Development Order Application	JWPP Properties, LLC	27-2S-20-33800-000-0130
17-01500002	Major Development Order Application	"LOTS 18,19,20 SOUTH WALTON COMMERCE PARK PRE-	05-3S-18-16010-000-0180

17-00100013	Major Development Order Application	ALAQUA ANIMAL REFUGE RELOCATION	21-1S-18-14000-002-0010
17-00100030	Major Development Order Application	DONUT HOLE PARKING ADDITION	
17-00100032	Major Development Order Application	"LOTS 18, 19, 20 SOUTH WALTON COMMERCE PARK"	05-3S-18-16010-000-0180
17-00100033	Major Development Order Application	PRESERVE AT PARADISE COVE	35-2S-19-24000-022-0000
17-00100035	Major Development Order Application	AZZURRO CONDOMINIUM	19-3S-18-16080-000-0162
17-00100036	Major Development Order Application	GULF ATLANTIC ELECTRIC WAREHOUSE	05-3S-18-16010-000-0100
17-00100052	Major Development Order Application	Santa Rosa Beach COW Second Extension	02-3S-20-34160-000-0050
17-00100053	Major Development Order Application	SHOPS AT BLUE MOUNTAIN BEACH	01-3S-20-34030-000-00A0
17-00100054	Major Development Order Application	LOT 3 WATERCOLOR CROSSING	14-3S-19-25401-000-0030
17-00100063	Major Development Order Application	ATCHISON WAREHOUSES	19-1S-20-32200-000-0100
17-00100065	Major Development Order Application	MOBILE FIXTURE SHOWROOM/WAREHOUSE	04-2S-19-24000-002-0010
17-00100069	Major Development Order Application	SHOPPES AT INLET	36-3S-18-16100-000-1670
17-00100087	Major Development Order Application	TOPSAIL WEST PUD AMENDMENT	30-2S-20-33230-000-001D
17-00100088	Major Development Order Application	SOUTH WALTON FIRE DISTRICT TRAINING CENTER	27-2S-20-33210-000-0021
17-00100090	Major Development Order Application	SEASIDE SCHOOL EXPANSION	15-3S-19-25000-002-0000
17-00100117	Major Development Order Application	MOLBRIDGE LLC	34-1S-19-23041-000-0190
17-00100122	Major Development Order Application	COAST REALTY OFFICE RELOCATION	01-3S-19-25000-003-0010
17-00100123	Major Development Order Application	EDEN'S LANDING PUD AMENDMENT	35-2S-19-24100-00A-0010
17-00100125	Major Development Order Application	PALMETTO TRACE TOWNHOMES	29-2S-20-33000-015-0000
17-00100130	Major Development Order Application	CYPRESS LAKE PUD	32-2S-20-33000-005-0000
17-00100132	Major Development Order Application	PALMS AT INLET BEACH	36-3S-18-16100-000-2390
17-00100133	Major Development Order Application	THE SHOPS AT 393 A/K/A HBC MIXED USE	27-2S-20-33210-000-0150
17-00100155	Major Development Order Application	HERON'S CROSSING, PH. II	32-2S-20-33255-000-0140
17-00100156	Major Development Order Application	LOT 4 SOUTH WALTON COMMERCE PARK	05-3S-18-16010-000-0040
MAJ17-000001	Major Development Order Application	SOUTH WALTON COMMERCE PARK LOT 13	05-3S-18-16010-000-0130
MAJ17-000002	Major Development Order Application	Lot 28 South Walton Commerce Park	05-3S-18-16010-000-0280
MAJ17-000003	Major Development Order Application	The Blake at Miramar Beach	28-2S-21-42000-018-0050
MAJ17-000005	Major Development Order Application	San Roy Sands	19-3S-18-16080-000-0160
MAJ17-000006	Major Development Order Application	The Southern	30-2S-19-24000-035-0000
MAJ17-000007	Major Development Order Application	Forest View Village PUD Amendment #2	05-3S-18-16000-001-0021
MAJ17-000008	Major Development Order Application	Forest View Village Office Complex	05-3S-18-16000-001-0021
MAJ17-000010	Major Development Order Application	Hilton Garden Inn	33-2S-21-42000-011-0000
MAJ17-000011	Major Development Order Application	COMMERCE PARK PUD FKA STOCK & TRADE	26-2S-20-33200-000-0480
MAJ17-000012	Major Development Order Application	Point Washington Preserve	30-2S-19-24000-044-0000

MAJ17-000013	Major Development Order Application	Beachside Estates	19-3S-18-16080-000-0162
MAJ17-000014	Major Development Order Application	SHERWIN WILLIAMS	35-2S-20-33280-000-0300
MAJ17-000015	Major Development Order Application	Ocean Estates	34-2S-20-33270-051-0000
MAJ17-000016	Major Development Order Application	MERCY MULTIPLIED WOMEN'S CENTER	29-2S-19-24000-008-0080
MAJ18-000002	Major Development Order Application	Newbama Steel II	05-3S-18-16010-000-0250
MAJ18-000003	Major Development Order Application	Waterfalls By The Bay	20-2S-20-33300-000-0050
MAJ18-000006	Major Development Order Application	Tops'l DRI Essentially Built-Out Agreement	35-2S-21-42100-003-0000
MAJ18-000007	Major Development Order Application	Bayshore Manor	29-2S-21-42000-003-0120
MAJ18-000008	Major Development Order Application	Palm Court Subdivision	36-3S-18-16100-000-2470
MAJ18-000010	Major Development Order Application	Dollar General	02-3N-19-19000-009-0000
MAJ18-000012	Major Development Order Application	Second Amendment to EBOA for Town of Seaside	15-3S-19-25000-002-00A0
MAJ18-000013	Major Development Order Application	Bear Creek Phase 3	02-2S-19-24000-018-0000
MAJ18-000014	Major Development Order Application	Forest View Apartments	05-3S-18-16000-001-0021
MAJ18-000015	Major Development Order Application	McDonald's Remodel	30-2S-21-42000-001-0014
MAJ18-000016	Major Development Order Application	Sellers Tile Parking Amendment LTM	26-2S-20-33200-000-0495
MAJ18-000017	Major Development Order Application	Point Washington Preserve	30-2S-19-24000-044-0000
MAJ18-000018	Major Development Order Application	Louis Louis Expansion	28-2S-20-33220-000-0489
MAJ18-000019	Major Development Order Application	SEACREST DENTAL	29-2S-19-24000-008-0020
MAJ18-000022	Major Development Order Application	CapeLongue	07-3S-19-25000-006-0000
MAJ18-000023	Major Development Order Application	Restaurant, putt putt golf, shops	30-2S-19-24000-060-0000
MAJ18-000025	Major Development Order Application	TOPSAIL WEST PUD CONCEPTUAL	29-2S-20-33000-011-0010
MAJ18-000028	Major Development Order Application	Benecki Building	05-3S-18-16010-000-0150
MAJ18-000029	Major Development Order Application	Miramar Beach Hotel	29-2S-21-42000-011-0018
MAJ18-000030	Major Development Order Application	Mack Bayou Lots 6 & 7	25-2S-21-42700-000-0060
MAJ18-000031	Major Development Order Application	Origins Crossings	26-3S-18-16000-001-0030
MAJ18-000032	Major Development Order Application	Kara Lake Townhomes	26-2S-20-33200-000-0461
MAJ18-000034	Major Development Order Application	Southeast Storage Amendment LTM	29-2S-21-42000-006-00A0
MAJ18-000035	Major Development Order Application	Santa Rosa Commerce Park	27-2S-20-33210-000-0480
MAJ18-000037	Major Development Order Application	Habitat for Humanity ReStore	26-2S-20-33200-000-0171
MAJ18-000038	Major Development Order Application	Surf Style Expansion	33-2S-21-42000-015-0010
MAJ18-000039	Major Development Order Application	30Avenue Major	36-3S-18-16250-000-0010
MAJ18-000040	Major Development Order Application	Greenway Station Technical Review	24-3S-19-25000-004-0030
MAJ18-000041	Major Development Order Application	Watercolor Phase 5	14-3S-19-25000-002-0050
MAJ18-000042	Major Development Order Application	Camp Creek Residential	23-3S-18-16000-001-0000

MAJ19-000001	Major Development Order Application	The Range Project	02-1N-19-17000-004-0030
MAJ19-000002	Major Development Order Application	The Range Project	02-1N-19-17000-004-0030
MAJ19-000003	Major Development Order Application	Horse Power Pavilion	13-1S-20-32000-024-0000
MAJ19-000004	Major Development Order Application	Sandhill Pines Subdivision	24-2S-21-42270-000-0450
MAJ19-000006	Major Development Order Application	SRB Executive Express Car Wash	34-2S-20-33270-001-0002
MAJ19-000007	Major Development Order Application	Chat Holly Townhomes	24-2S-20-33180-000-0160
MAJ19-000010	Major Development Order Application	T-Mobile Serra Holdings COW	02-3S-20-34160-000-0050
MAJ19-000011	Major Development Order Application	Emerald Bay Build-out Agreement	30-2S-21-42900-000-0000
MAJ19-000012	Major Development Order Application	Tom Thumb #160	05-3S-18-16000-001-0040
MAJ19-000013	Major Development Order Application	KAIYA Master Plan Update	27-3S-18-16000-002-0000
MAJ19-000014	Major Development Order Application	Emerald Bay Development Corporation DO Extension	29-2S-21-42500-000-0000
MAJ19-000015	Major Development Order Application	South Walton Commerce Park Lots 34 & 35	05-3S-18-16010-000-0340
MAJ19-000016	Major Development Order Application	Watersound Origins Townhomes	26-3S-18-16000-001-0030
MAJ19-000017	Major Development Order Application	WALTON'S LANDING	23-2S-20-33170-000-0130
MAJ19-000018	Major Development Order Application	Sea Drift Subdivision	29-2S-20-33000-019-0010
MAJ19-000019	Major Development Order Application	Force Capital Partners Complex	27-2S-20-33210-000-0030
MAJ19-000020	Major Development Order Application	Jenkins Test	29-2S-20-33000-019-0000
MAJ19-000021	Major Development Order Application	Walton County DSAP 1	22-3S-18-16000-001-0000
MAJ19-000022	Major Development Order Application	NEW LIFE CHURCH OF GOD	34-2S-20-33270-035-0010
MAJ19-000023	Major Development Order Application	Southeast Storage Major Development Order	29-2S-21-42000-006-00A0
MAJ19-000024	Major Development Order Application	MACK BAYOU RESIDENCES PLANNED UNIT	25-2S-21-42000-027-0000
MAJ19-000025	Major Development Order Application	The Beach Club	35-2S-21-42100-002-0000
MAJ20-000001	Major Development Order Application	Chautauqua Solar Energy Facility	02-4N-20-29000-001-0000
MAJ20-000002	Major Development Order Application	Origins Grocery	
MAJ20-000003	Major Development Order Application	Otto's Carwash SoWal	29-2S-20-33000-016-0000
MAJ20-000004	Major Development Order Application	Los Rancheros of Santa Rosa Beach	29-2S-20-33000-017-0060
MAJ20-000005	Major Development Order Application	Draper Lake PUD	01-3S-20-34000-008-0000
MAJ20-000006	Major Development Order Application	Wood Spring Suites	30-2S-21-42000-005-0000
MAJ20-000007	Major Development Order Application	DONUT HOLE AT INLET BEACH PARKING ADDITION	36-3S-18-16100-000-0600
MAJ20-000008	Major Development Order Application	Summit Building Parking Addition	29-2S-21-42000-011-0030
MAJ20-000009	Major Development Order Application	Wildwood Village	36-3S-18-16100-000-0200
MAJ20-000010	Major Development Order Application	Parkside Subdivision PUD	32-2S-20-33000-005-0000
MAJ20-000011	Major Development Order Application	Walton County TDC Visitor Center and Administration Offices	29-2S-19-24000-008-0070

MAJ20-000012	Major Development Order Application	Emerald Bay Development Phase III Residential	30-2S-21-42900-000-0000
MAJ20-000013	Major Development Order Application	Carbon Meaning Office Building	05-3S-18-16000-001-0040
MAJ20-000014	Major Development Order Application	Sanctuary Apartments Phase III	29-2S-19-24000-004-0000
MAJ20-000015	Major Development Order Application	The Southern Phase II	30-2S-19-24000-034-0000
MAJ20-000016	Major Development Order Application	Forest View Village PUD Amendment #3	05-3S-18-16000-001-0021
MAJ20-000017	Major Development Order Application	Forest View Village Commercial Lots and Road	05-3S-18-16000-001-0040
17-00100014	Major Development Order Application	OLD FLORIDA VILLAGE PH II PUD AMENDMENT	02-3S-20-34300-000-0010
MAJ17-000004	Major Development Order Application	Rock Hill Road	08-2N-17-05000-019-0000
MAJ17-000009	Major Development Order Application	Draper Lake COW	02-3S-20-34160-000-0050
17-00100001	Major Development Order Application	SAND DOLLAR COURT SUBDIVISION	24-3S-19-25120-000-0060
17-00100124	Major Development Order Application	WATERSOUNDS ORIGINS PHASE IV	25-3S-18-16000-001-0000
MAJ18-000001	Major Development Order Application	Point Washington F8146	09-3S-18-16000-001-0000
MAJ18-000005	Major Development Order Application	Sacred Heart - Watersound Origins	23-3S-18-16000-001-0010
MAJ18-000011	Major Development Order Application	Verizon Wireless Santa Rosa Relo	02-3S-20-34000-002-0021
MAJ18-000004	Major Development Order Application	Sandestin Boutique Hotel	23-2S-21-42500-AAA-AAAA
MAJ18-000024	Major Development Order Application	Emerald Transformer Addition	02-3N-19-19000-015-0000
MAJ18-000026	Major Development Order Application	Verizon Wireless cell tower site "Pretty Pond"	08-3N-19-19000-002-0001
MAJ18-000033	Major Development Order Application	Geronimo Communications Tower	28-2S-21-42000-004-0000
MAJ18-000036	Major Development Order Application	Watersound North DRI PUD Amendment	13-3S-18-16000-001-0000
MAJ19-000009	Major Development Order Application	Watersound Origins Assisted Living Facility	23-3S-18-16000-001-0010
MAJ19-000008	Major Development Order Application	Camp Creek Resort Village	27-3S-18-16000-001-0000
MAJ19-000005	Major Development Order Application	Watersound Origins Phase 5	24-3S-18-16000-001-0010
15-00100064	Minor Development Order Application	L AND L MARINE	25-2N-19-18000-002-0030
15-00100073	Minor Development Order Application	GRAND BLVD. PAD R & V PARKING LOT	26-2S-21-42000-001-0050
15-00100074	Minor Development Order Application	WALTON COUNTY SHERIFF'S WORKOUT FACILITY	02-3N-19-19000-028-0000
15-00100075	Minor Development Order Application	SHIPWATCH PHASE I OVERFLOW PARKING	33-2S-21-42600-000-00A0
15-00100089	Minor Development Order Application	GULFPLACE RETREAT	02-3S-20-34160-000-0230
15-00100093	Minor Development Order Application	SACRED HEART HOSPITAL LEVEL 2 & ED EXPANSION	25-2S-21-42000-015-0000
15-00100096	Minor Development Order Application	THE GEORGETOWN	35-3S-18-16067-034-0050
15-00100107	Minor Development Order Application	HIGHLAND PARKS COMMERCIAL	01-3S-20-34000-009-0010
15-00100127	Minor Development Order Application	SEACREST BEACH HOA POOL EXPANSION	26-3S-18-16000-002-0010
15-00100135	Minor Development Order Application	ROYSTER GENERAL DYNAMICS	01-1N-19-17000-001-0000
15-00100136	Minor Development Order Application	PEACH CREEK PHASE IV	36-2S-19-24000-008-0000
15-00100137	Minor Development Order Application	PROMINENCE MAILBOX KIOSK & ENTRY ROAD	20-3S-18-16000-002-0000

15-00100140	Minor Development Order Application	"CALYPSO COVE RV PARK, LLC"	34-1S-19-23000-018-0001
15-00100143	Minor Development Order Application	ROEHM LANDSCAPE	30-2S-19-24000-005-0011
15-00100152	Minor Development Order Application	30A TOWNHOMES	24-3S-19-25030-000-0021
15-00100155	Minor Development Order Application	DOLLAR GENERAL STORE #16573	30-2S-21-42000-005-0080
15-00100156	Minor Development Order Application	SEASIDE MOTOR COURT	15-3S-19-25110-00C-0130
15-00100158	Minor Development Order Application	RESURRECTION CHURCH TEMPORARY PARKING	28-2S-21-42000-019-0010
15-00100161	Minor Development Order Application	SEA 30A CENTER	07-3S-19-25180-000-001A
15-00100163	Minor Development Order Application	OVERSEE RENTAL SERVICES	08-3S-19-25000-001-0013
15-00100167	Minor Development Order Application	DOWNTOWN SEAGROVE	14-3S-19-25080-003-0010
15-00100169	Minor Development Order Application	COX - POOLS WEST DIVISION OFFICE	19-1S-20-32050-00A-0011
15-00100174	Minor Development Order Application	MOSSY HEAD BAPTIST CHURCH EXPANSION	23-3N-21-37010-004-0010
15-00100179	Minor Development Order Application	NORTH WALTON SUBSTATION	15-4N-20-29000-009-0000
15-00100180	Minor Development Order Application	PEACH CREEK AMENDMENT	36-2S-19-24000-008-0000
15-00100181	Minor Development Order Application	PROMINENCE PHASE 1A SOUTH	20-3S-18-16200-000-0080
15-00100182	Minor Development Order Application	COTTAGES AT 393 SOUTH	34-2S-20-33270-009-0000
15-00100183	Minor Development Order Application	AZALEA STREET LOTS	14-3S-19-25000-008-0010
15-00100184	Minor Development Order Application	SAMCAM PARKING LOT	32-2S-20-33000-004-0000
15-00100199	Minor Development Order Application	SPYGLASS HILL PHASE II F/K/A SPYGLASS PHASE III	02-3S-20-34160-000-0070
15-00100200	Minor Development Order Application	PROMINENCE PHASE 3-NORTH	20-3S-18-16000-002-0000
15-00100205	Minor Development Order Application	CYPRESS BREEZE ENTRANCE	02-3S-20-34000-002-0040
15-00100211	Minor Development Order Application	SEACROFT SUBDIVISION	02-3S-20-34160-000-0060
15-00100214	Minor Development Order Application	MOLL DRIVE RECYCLING CENTER IMPROVEMENTS	34-2S-20-33270-033-0002
15-00100215	Minor Development Order Application	PRICE GALLION RESTAURANT & BAR	02-3S-20-34160-000-0450
16-00100003	Minor Development Order Application	ALYS BEACH BLOCK S COMMERCIAL AMENDMENT	26-3S-18-16000-003-0000
16-00100004	Minor Development Order Application	EASTERN LAKE VILLAGE MINOR MODIFICATION	19-3S-18-16000-002-00A4
16-00100027	Minor Development Order Application	LOT 9 EMERLAD COAST BUSINESS CENTER(AMENDED)	29-2S-21-42100-000-0090
16-00100033	Minor Development Order Application	"CR 83 BUSINESS STORAGE, LLC"	36-2S-20-33290-000-0100
16-00100045	Minor Development Order Application	COPE MULTI-PURPOSE BUILDING	23-2N-19-18000-004-0010
16-00100049	Minor Development Order Application	BAYSIDE RANCHETTES POCKET PARK	28-2S-19-24150-00A-0081
16-00100052	Minor Development Order Application	PROMINENCE PHASE 4-NORTH	20-3S-18-16000-002-0000
16-00100056	Minor Development Order Application	ARNETT'S GULFSIDE TRAIL RIDES	35-2S-20-33280-000-0550
16-00100078	Minor Development Order Application	DRIFTWOOD DRIVE TOWNHOMES POOL	30-2S-21-42950-000-00A0
16-00100079	Minor Development Order Application	QUATTUOR DEVELOPMENT	36-3S-18-16100-000-0780
16-00100082	Minor Development Order Application	SDWWTP STORAGE BLDG.	26-2S-21-42000-001-0091

16-00100085	Minor Development Order Application	EAST OF EDEN B&B	35-2S-19-24440-00D-0050
16-00100087	Minor Development Order Application	NATUREWALK PH 4 PUD AMENDMENT	11-3S-19-25010-000-00A0
16-00100098	Minor Development Order Application	395 COMMUNITY	14-3S-19-25000-004-0000
16-00100099	Minor Development Order Application	HAPPY HOLLOW	36-1S-19-23000-003-0010
16-00100101	Minor Development Order Application	CANAAN RECOVERY CENTER BUILDING ADDITION	29-2S-20-33000-062-0000
16-00100104	Minor Development Order Application	CHRIST THE KING EPISCOPAL ADDITION	26-2S-20-33200-000-0540
16-00100111	Minor Development Order Application	SEABREEZE SOUTH POOL	28-3S-18-16145-000
16-00100112	Minor Development Order Application	PEACH CREEK PHASE 5	36-2S-19-24000-008-0000
16-00100114	Minor Development Order Application	SEACREST WWTP EXPANSION	08-3S-18-16000-001-0030
16-00100115	Minor Development Order Application	"DCC, INC."	35-2N-19-18000-001-0101
16-00100118	Minor Development Order Application	"ALYS BEACH BLOCK S ""THE MAY"" (FKA) BEACH	26-3S-18-16000-003-0000
16-00100119	Minor Development Order Application	ALLGOOD LAND SERVICES	04-2S-19-24000-025-0000
16-00100121	Minor Development Order Application	CAHABA PROPERTIES	08-3S-19-25300-000-0080
16-00100124	Minor Development Order Application	"ARNETT'S GULFSIDE TRAIL RIDES, LLC"	35-2S-20-33280-000-0550
16-00100129	Minor Development Order Application	SANDESTIN OWNERS ASSOCIATION OFFICES	27-2S-21-42000-002-0000
16-00100131	Minor Development Order Application	TOM THUMB #92	29-2S-21-42000-011-0020
16-00100138	Minor Development Order Application	SEASIDE LYCEUM STAGE	15-3S-19-25000-002-0000
16-00100140	Minor Development Order Application	9MT2521A/SBA BRUCE/NSD PROJECT	20-1N-17-04000-002-0020
16-00100143	Minor Development Order Application	ALYS BEACH BLOCK AC	27-3S-18-16000-027-0010
16-00100144	Minor Development Order Application	CABANAS AT TOPS'L	35-2S-21-42100-002-0000
16-00100146	Minor Development Order Application	ROYAL PALMS	29-2S-20-33000-061-0020
16-00100148	Minor Development Order Application	HICKS GARDEN CENTER	30-2S-19-24000-064-0050
16-00100150	Minor Development Order Application	BUD & ALLEYS EXPANSION	15-3S-19-25000-002-0040
16-00100151	Minor Development Order Application	PROMINENCE PHASE III SOUTH	20-3S-18-16000-002-0000
16-00100154	Minor Development Order Application	PARADISE BY THE SEA GATE	35-3S-18-16020-000-00A0
16-00100160	Minor Development Order Application	WATERSOUND BEACH CLUB POOL AND AMENITY	20-3S-18-16000-001-0010
16-00100164	Minor Development Order Application	ALYS BEACH FITNESS CENTER	26-3S-18-16000-003-0000
16-00100171	Minor Development Order Application	PROMINENCE GRACE POINT POOL AMENITY	20-3S-18-16000-003-0000
16-00100175	Minor Development Order Application	CREWS OFFICE	27-2S-20-33210-000-014C
16-00100179	Minor Development Order Application	SANTA ROSA RETREAT	02-3S-20-34160-000-0130
16-00100181	Minor Development Order Application	GRACE RIDES	12-12N-20-27000-002-0020
16-00100183	Minor Development Order Application	WATERCOLOR BEACH CLUB EXPANSION	15-3S-19-25000-001-0040
16-00100184	Minor Development Order Application	WATERCOLOR BEACH CAMP	15-3S-19-25416-000-00A0
16-01300040	Minor Development Order Application	PT. WASHINGTON APARTMENTS ENTRANCE	29-2S-19-24000-004-0000

16-00100203	Minor Development Order Application	BLUE MOUNTAIN BEACH BUSINESS CENTER	12-3S-20-34000-001-0021
16-00100210	Minor Development Order Application	AJ'S GRAYTON BEACH ALTERATIONS	08-3S-19-25200-00A-0040
16-00100211	Minor Development Order Application	SECLUSION COVE	24-2S-20-33180-000-0072
16-00100217	Minor Development Order Application	SOUTH WALTON COUNTY SPORTS COMPLEX MAJ	05-3S-18-16000-001-0022
16-00100234	Minor Development Order Application	THE BELLAMY OF 30A MINOR	02-3S-20-34000-008-0010
17-00100002	Minor Development Order Application	WESTONWOOD RANCH	11-1S-20-32000-038-0000
17-00100009	Minor Development Order Application	SANTA ROSA PLACE APARTMENTS	28-2S-20-33500-000-0100
17-00100028	Minor Development Order Application	WATERSOUND ORIGINS PH2B SALES CTR/MODEL	25-3S-18-16000-001-0000
17-00100031	Minor Development Order Application	SEACREST BEACH LAGOON & AMPHITHEATER	26-3S-18-16000-002-0012
17-00100034	Minor Development Order Application	PROMINENCE THE HUB CUSTOM 3 BUILDING MOD	20-3S-18-16300-000-0180
17-00100040	Minor Development Order Application	WEST HEWETT ASSISTED LIVING	30-2S-20-33230-000-001A
17-00100041	Minor Development Order Application	THE CHAPEL AT CROSSPOINT	02-3S-20-34000-006-0000
17-00100055	Minor Development Order Application	4MG RECLAIM TANK SITE	29-2S-19-24000-010-0020
17-00100057	Minor Development Order Application	TOPSAIL WEST PUD WETLAND IMPACTS	29-2S-20-33000-011-0010
17-00100062	Minor Development Order Application	SEASIDE POST OFFICE PLAZA	15-3S-19-25110-000-0000
17-00100070	Minor Development Order Application	BLUE MOUNTAIN BEACH BREAK	12-3S-20-34000-001-0021
17-00100073	Minor Development Order Application	BAY GROVE OFFICE PARK LOT 10	34-1S-19-23040-000-0100
17-00100086	Minor Development Order Application	WAL-MART LIQUOR BOX EXPANSION	30-2S-20-33230-000-001D
17-00100089	Minor Development Order Application	Kaiya The Strand Plat	27-3S-18-16000-027-0000
17-00100105	Minor Development Order Application	BAY GROVE OFFICE PARK LOT 15	34-1S-19-23040-000-0150
17-00100116	Minor Development Order Application	BAY GROVE OFFICE PARK LOT 16	34-1S-19-23040-000-0160
17-00100118	Minor Development Order Application	BAYVIEW ESTATES	19-2S-21-42000-005-0000
17-00100128	Minor Development Order Application	EMERALD COAST BUSINESS CENTER WEST PARCEL C	29-2S-21-42000-010-0000
17-00100129	Minor Development Order Application	NOKUSE KIDS' CAMP	20-1S-18-14000-012-0000
17-00100131	Minor Development Order Application	LIVE OAK LANDING CHECK-IN OFFICE	02-2S-19-24000-034-0050
17-00100141	Minor Development Order Application	WALTON COUNTY TRANSFER STATION	12-3N-19-19000-002-0000
17-00100142	Minor Development Order Application	PEACH CREEK 3MG GROUND STORAGE TANK 2	36-2S-19-24000-010-0000
17-00100157	Minor Development Order Application	WESTWOOD AUTISM CENTER	11-1S-20-32000-038-0030
MIN17-000001	Minor Development Order Application	ARBOR LANE COMMERCIAL DEVELOPMENT	08-3S-19-25220-000-0100
MIN17-000004	Minor Development Order Application	The Crest	12-3S-20-34050-000-0080
MIN17-000005	Minor Development Order Application	Tridocs	25-2S-21-42340-000-0010
MIN17-000006	Minor Development Order Application	Camp Watercolor Pool	15-3S-19-25416-000-00A0
MIN17-000007	Minor Development Order Application	U-PAD TEMPORARY PARKING	26-2S-21-42000-001-0057
MIN17-000009	Minor Development Order Application	SURFSIDE POOL DECK EXPANSION PRE-APP	32-2S-21-42600-AAA-AAAA

MIN17-000010	Minor Development Order Application	Alderberry	20-2S-20-33300-000-0090
MIN17-000011	Minor Development Order Application	Calypso Cove RV Park	34-1S-19-23000-018-0001
MIN17-000012	Minor Development Order Application	Point Washington Preserve	30-2S-19-24000-044-0000
MIN17-000013	Minor Development Order Application	EASTERN LAKE TOWNHOMES	24-3S-19-25000-009-0020
MIN17-000014	Minor Development Order Application	Alys Beach Block P & T Lots T5 & T6	26-3S-18-16000-003-0000
MIN17-000015	Minor Development Order Application	Magnolia Cottages by the Sea Ph II	28-3S-18-16191-000-00A0
MIN17-000017	Minor Development Order Application	Bayshore Manor	29-2S-21-42000-003-0120
MIN17-000018	Minor Development Order Application	SATINWOOD 3MG GROUND STORAGE TANK PRE-APP	02-3S-20-34000-002-0021
MIN17-000019	Minor Development Order Application	Alys Beach Block Z & AA	27-3S-18-16000-027-0010
MIN17-000020	Minor Development Order Application	Grace Point Tennis Courts	20-3S-18-16000-003-0020
MIN17-000021	Minor Development Order Application	Bear Creek Subdivision Phase II	02-2S-19-24310-000-00A0
MIN17-000023	Minor Development Order Application	Bay Grove Office Park Lot 14	34-1S-19-23040-000-0140
MIN18-000001	Minor Development Order Application	Watercolor Beach Club Expansion	15-3S-19-25000-001-0040
MIN18-000004	Minor Development Order Application	SMARTSKY ANTENNA INSTALLATION PRE-APP	23-3N-20-28000-011-0060
MIN18-000005	Minor Development Order Application	Alys Beach Town Center Buildings 3 & 4 Replat	26-3S-18-16400-00E-0130
MIN18-000006	Minor Development Order Application	Coastal Pediatric Group Office	25-2S-21-42700-000-0030
MIN18-000007	Minor Development Order Application	The Chapel at Crosspoint - Youth Ministry Addition	02-3S-20-34000-006-0000
MIN18-000008	Minor Development Order Application	KAIYA CHAPTER 2	27-3S-18-16000-002-0000
MIN18-000009	Minor Development Order Application	BLUE GULF PLACE	01-3S-20-34200-00E-0110
MIN18-000010	Minor Development Order Application	Mussett Bayou Office	28-2S-20-33230-000-0010
MIN18-000011	Minor Development Order Application	Bay Grove Park	04-2S-19-24000-028-0010
MIN18-000012	Minor Development Order Application	Alys Beach Club	27-3S-18-16000-027-0010
MIN18-000013	Minor Development Order Application	Cottages at 393 Phase III	34-2S-20-33270-009-0000
MIN18-000014	Minor Development Order Application	CHAT HOLLEY RESIDENTIAL	30-2S-19-24000-005-0030
MIN18-000015	Minor Development Order Application	PCH Office Building	01-3S-19-25060-002-0040
MIN18-000016	Minor Development Order Application	30A Hokulia	24-3S-19-25120-000-0193
MIN18-000020	Minor Development Order Application	Shunk Gulley Parking Lot	02-3S-20-34160-000-0441
MIN18-000021	Minor Development Order Application	Grayton Beer Company	08-3S-19-25200-00C-0010
MIN18-000022	Minor Development Order Application	Dune Allen Beach Access Park	04-3S-20-34000-011-0000
MIN18-000023	Minor Development Order Application	Santa Rosa Retreat Plat	02-3S-20-34160-000-0130
MIN18-000024	Minor Development Order Application	Redfish Point Subdivision	34-1S-19-23000-004-0020
MIN18-000026	Minor Development Order Application	Pergola/Fire Pit	33-2S-21-42170-006-0010
MIN18-000027	Minor Development Order Application	TOPSAIL WEST RESTAURANT	30-2S-20-33230-000-001A
MIN18-000030	Minor Development Order Application	ALYS BEACH BLOCKS BB & CC	27-3S-18-16000-027-0010

MIN18-000031	Minor Development Order Application	Hidden Pines at Mack Bayou Park - Stormwater Retrofit	25-2S-21-42100-00A-0010
MIN18-000032	Minor Development Order Application	Surf Style Expansion	33-2S-21-42000-015-0010
MIN18-000033	Minor Development Order Application	Seacrest Beach Greenways & Land Use ReAllocations: History, Current, & Proposed Conditions	26-3S-18-16000-002-0012
MIN18-000034	Minor Development Order Application	District 2 Commissioner's Office Trailer at Glendale	11-4N-19-20000-013-0010
MIN18-000035	Minor Development Order Application	South Walton Church of Christ	27-2S-20-33210-000-0410
MIN18-000038	Minor Development Order Application	The District - 30A	35-2S-20-33280-000-0590
MIN18-000039	Minor Development Order Application	Rosa Dune Restoration	03-3S-20-34150-000-031A
MIN18-000041	Minor Development Order Application	Bannerman 5 Lot Subdivision	07-3S-19-25000-004-00A0
MIN18-000042	Minor Development Order Application	White Cliffs	12-3S-20-34630-000-4010
MIN18-000043	Minor Development Order Application	30 Avenue Parking Amendment LTM	36-3S-18-16100-000-0290
MIN18-000044	Minor Development Order Application	Watersound Origins Phase 5 Infrastructure	24-3S-18-16000-001-0010
MIN19-000001	Minor Development Order Application	The Range Project	02-1N-19-17000-004-0030
MIN19-000003	Minor Development Order Application	Amici Addition at 30 Avenue	36-3S-18-16100-000-0490
MIN19-000004	Minor Development Order Application	Grand Inlet	36-3S-18-16100-000-2020
MIN19-000005	Minor Development Order Application	Horse Power Pavilion	13-1S-20-32000-024-0000
MIN19-000009	Minor Development Order Application	30A TOWNHOMES	24-3S-19-25030-000-0021
MIN19-000010	Minor Development Order Application	Christ The King Episcopal Church Education Bldg #2	26-2S-20-33200-000-0570
MIN19-000011	Minor Development Order Application	KAIYA Mixed Use Building A	27-3S-18-16000-002-0000
MIN19-000012	Minor Development Order Application	Point Washington UMC	35-2S-19-24000-026-0000
MIN19-000013	Minor Development Order Application	Basin Bayou Estates	21-1S-20-32000-016-0010
MIN19-000014	Minor Development Order Application	SOUTH WALTON COMMERCE PARK (LOT 7)	05-3S-18-16010-000-0070
MIN19-000015	Minor Development Order Application	Emerald Coast Emporium Shopping Center	28-2S-21-42000-008-0050
MIN19-000016	Minor Development Order Application	Emerald Coast Emporium	28-2S-21-42000-008-0050
MIN19-000018	Minor Development Order Application	393 Centennial Bank	35-2S-20-33280-000-0601
MIN19-000019	Minor Development Order Application	Showalter Pet Salon	25-2S-21-42330-000-0280
MIN19-000020	Minor Development Order Application	SHERWIN WILLIAMS	35-2S-20-33280-000-0300
MIN19-000021	Minor Development Order Application	Benecki Building	05-3S-18-16010-000-0150
MIN19-000022	Minor Development Order Application	Dubuisson Commercial	28-2S-19-24150-00E-0120
MIN19-000023	Minor Development Order Application	Down Island Restaurant	26-2S-20-33200-000-0471
MIN19-000024	Minor Development Order Application	Magnolia Dunes	33-2S-20-33260-006-0001
MIN19-000025	Minor Development Order Application	La Bella Vita Estates	36-3S-18-16100-000-0260
MIN19-000027	Minor Development Order Application	Origins Retail 1	26-3S-18-16000-001-0030
MIN19-000028	Minor Development Order Application	High 5 - Topsail West Phase III	30-2S-20-33230-000-001A

MIN19-000029	Minor Development Order Application	Grover Nine Minor Development Order	22-2S-20-33120-001-0010
MIN19-000030	Minor Development Order Application	Shunk Gulley	02-3S-20-34160-000-0450
MIN19-000031	Minor Development Order Application	Rosa Dune	03-3S-20-34150-000-031A
MIN19-000032	Minor Development Order Application	Sweetwater Lane RV Park	27-1S-19-23000-042-0040
MIN19-000033	Minor Development Order Application	Affordble Homes of Defuniak Springs	21-3N-19-19000-024-0000
MIN19-000034	Minor Development Order Application	Martha's Lane Condominiums	03-3S-20-34150-000-0260
MIN19-000035	Minor Development Order Application	Dollar General	34-1S-19-23000-002-0000
MIN19-000036	Minor Development Order Application	Miramar Regional Beach Access Project	33-2S-21-42170-018-0010
MIN19-000037	Minor Development Order Application	Origins Roadway North	26-3S-18-16000-001-0030
MIN19-000038	Minor Development Order Application	Highlands at Seagrove Amendment	13-3S-19-25000-007-0040
MIN19-000039	Minor Development Order Application	Alys Beach Back of House (Block X)	26-3S-18-16000-003-0000
MIN19-000040	Minor Development Order Application	Patton Primary Care South Amendment	32-2S-20-33250-000-0321
MIN19-000041	Minor Development Order Application	ZAC Business Plaza	05-3S-18-16010-000-0090
MIN19-000042	Minor Development Order Application	Manser & Gibson Subdivision	
MIN19-000043	Minor Development Order Application	Ashley Place	34-2S-20-33270-008-0001
MIN19-000044	Minor Development Order Application	Walmart Exterior Modification	30-2S-20-33230-000-001D
MIN19-000045	Minor Development Order Application	Christ the King Episcopal Church Education Building	26-2S-20-33200-000-0570
MIN19-000046	Minor Development Order Application	Origins Pavilion	
MIN19-000047	Minor Development Order Application	Sea Croft Cottages	02-3S-20-34160-000-0050
MIN19-000048	Minor Development Order Application	Miramar Beach Hotel	29-2S-21-42000-011-0018
MIN19-000049	Minor Development Order Application	Miramar Beach Hotel Amendment	29-2S-21-42000-011-0018
MIN19-000050	Minor Development Order Application	Coursey Garden Center	22-3N-19-19000-009-0000
MIN19-000051	Minor Development Order Application	The Cove at Santa Rosa Beach	02-3S-20-34160-000-0120
MIN19-000052	Minor Development Order Application	Watersound Origins Phase 5 - SALES CENTER AND LOT LINE SHIFT	
MIN19-000053	Minor Development Order Application	Green Street Improvements	27-3S-18-16000-010-0040
MIN19-000054	Minor Development Order Application	Portable Buildings of Walton County	24-3N-21-37040-00C-0370
MIN19-000055	Minor Development Order Application	Green Air Facility	22-1S-18-14000-003-0010
MIN19-000056	Minor Development Order Application	Love's Travel Stop #561	28-3N-21-37000-006-0020
MIN19-000057	Minor Development Order Application	BMBIP Unit I	25-2S-20-33201-00E-0000
MIN19-000058	Minor Development Order Application	Topsail West Multi-Tenant Commercial Building	30-2S-20-33230-000-001A
MIN19-000059	Minor Development Order Application	Shades of Blue Subdivision	30-2S-21-42290-000-0490
MIN19-000060	Minor Development Order Application	Viridian Condo Pool Amenity	15-3S-19-25611-000-0020
MIN19-000061	Minor Development Order Application	Seashells on the Beach PUD, Phase VI	30-2S-21-42000-005-0000

MIN19-000062	Minor Development Order Application	Los Rancheros of Santa Rosa Beach	29-2S-20-33000-017-0060
MIN20-000001	Minor Development Order Application	Tom Thumb #160	05-3S-18-16000-001-0040
MIN20-000002	Minor Development Order Application	SRB Executive Express Car Wash	34-2S-20-33270-001-0002
MIN20-000003	Minor Development Order Application	Black Creek RV Park	32-1S-18-14000-002-0050
MIN20-000004	Minor Development Order Application	Sandestin Mini Golf & Ferris Wheel	26-2S-21-42000-001-0270
MIN20-000005	Minor Development Order Application	Deer Lake State Park Improvements	19-3S-18-16000-001-0020
MIN20-000006	Minor Development Order Application	Jars Cove	19-2S-21-42000-006-0040
MIN20-000007	Minor Development Order Application	Lot 31, Shannon Drive	19-3S-18-16160-000-0310
MIN20-000008	Minor Development Order Application	DONUT HOLE AT INLET BEACH PARKING ADDITION	36-3S-18-16100-000-0600
MIN20-000009	Minor Development Order Application	Dollar General 21566	30-3N-18-10000-017-0010
MIN20-000010	Minor Development Order Application	Bel-Mac Building Addition	27-2S-20-33000-010-0040
MIN20-000011	Minor Development Order Application	Summit Building Parking Addition	29-2S-21-42000-011-0030
MIN20-000012	Minor Development Order Application	Seagrove Baptist Church Expansion	24-3S-19-25030-000-0010
MIN20-000013	Minor Development Order Application	Sand Dollar Subdivision	24-3S-19-25120-000-0060
MIN20-000014	Minor Development Order Application	USPS 393 Facility	27-2S-20-33210-000-0010
MIN20-000015	Minor Development Order Application	Wood Spring Suites	30-2S-21-42000-005-0000
MIN20-000016	Minor Development Order Application	Nextgen Properties LLC Showroom and Storage	34-1S-19-23040-000-0110
MIN20-000017	Minor Development Order Application	Mack Bayou Development	25-2S-21-42340-000-0010
MIN20-000018	Minor Development Order Application	Dirt Investment Pole Barn	35-2S-20-33280-000-0580
MIN20-000019	Minor Development Order Application	East End 5MG Tank & Booster Pump Station	26-3S-18-16000-001-0070
MIN20-000020	Minor Development Order Application	Pole Barn Extension Emerald Transformer, Inc	02-3N-19-19000-015-0000
MIN20-000021	Minor Development Order Application	Point Washington Preserve Ph 2 & 3A	30-2S-19-24000-044-0000
MIN20-000022	Minor Development Order Application	South Church Street Subdivision	27-2S-20-33210-000-0310
MIN20-000023	Minor Development Order Application	Alys Beach Buildings 9 and 10	27-3S-18-16000-027-0010
MIN20-000024	Minor Development Order Application	Parkside Subdivision PUD	32-2S-20-33000-005-0000
MIN20-000025	Minor Development Order Application	Live Oak Landing - Phase 3	02-2S-19-24000-034-0070
MIN20-000026	Minor Development Order Application	Love's 561	28-3N-21-37000-006-0020
MIN20-000027	Minor Development Order Application	Saltwater Subdivision	14-3S-19-25000-004-0000
MIN20-000028	Minor Development Order Application	Bay Grove Office Park Lots 3 & 4	34-1S-19-23046-000-0040
MIN20-000029	Minor Development Order Application	Glendale/Darlington Cell Tower	22-5N-19-21000-002-0000
MIN20-000030	Minor Development Order Application	Gordon Cell Tower	31-5N-20-30000-008-0000
MIN20-000031	Minor Development Order Application	Bruce Cell Tower	19-1N-17-04000-001-0050
MIN20-000032	Minor Development Order Application	Forest View Village Commercial Lots and Road	05-3S-18-16000-001-0040
MIN20-000033	Minor Development Order Application	Still Waters Ministries Women's Center	29-4N-21-38000-001-001A

MIN20-000034	Minor Development Order Application	Big Fish Bike Rentals Office & Warehouse	24-3S-19-25120-000-0194
17-00100074	Minor Development Order Application	BAY GROVE OFFICE PARK LOT 9	34-1S-19-23040-000-0090
MIN17-000008	Minor Development Order Application	Kaiya PUD 30A ROW Improvements	
MIN17-000002	Minor Development Order Application	Waffle House - Mossy Head	28-3N-21-37000-006-0040
MIN18-000002	Minor Development Order Application	Pleasant Ridge General Store	05-2N-19-18000-004-0010
MIN18-000019	Minor Development Order Application	Le Petit Creperie	15-3S-19-25000-002-00A0
MIN18-000017	Minor Development Order Application	331 General Store	36-4N-20-29000-019-0010
MIN18-000018	Minor Development Order Application	Sandestin Owner's Association Pool 2 Renovation	26-2S-21-42000-001-0001
MIN18-000025	Minor Development Order Application	Development of a 4,980 gross square foot warehouse building on vacant parcel	29-3N-21-37000-001-0000
MIN18-000037	Minor Development Order Application	Kaiya - The Studio	27-3S-18-16000-002-0000
MIN18-000040	Minor Development Order Application	D2- Commissioner's Office Trailer Relocate the District 2 Commissioners Office and construct the necessary infrastructure	02-3N-19-19000-005-0030
MIN18-000036	Minor Development Order Application	Brewers Plant Services	08-1S-19-23000-004-0012
MIN19-000002	Minor Development Order Application	Camp Creek Learning Center	27-3S-18-16000-001-0000
MIN18-000029	Minor Development Order Application	Watercrest Assisted Living / Memory Care - Santa Rosa FL	30-2S-20-33230-000-001A
MIN19-000006	Minor Development Order Application	District 3 Road Department Office Building	33-4N-20-29000-011-0000
MIN19-000007	Minor Development Order Application	Sea Oats	24-3S-19-25000-009-0040
MIN19-000008	Minor Development Order Application	Emerald Coast Business Center West - Building D	29-2S-21-42000-010-0040
MIN19-000017	Minor Development Order Application	FWC Law Enforcement Building	02-1N-19-17000-002-0000
MIN19-000026	Minor Development Order Application	Origins East Stormwater Master Plan	26-3S-18-16000-001-0030

Walton County
Planning Commission

February 13, 2020

Project # MAJ19-000021

Project Name: Bay Walton Sector Plan DSAP-1

Applicant: VHB Corporation on behalf of the St. Joe Company

Project Type: Major (DSAP Conceptual Plan)

Location: The project is located north of US Hwy 98, south of the Intracoastal Waterway, east of Serenoa Road and west of the Walton/Bay County line.

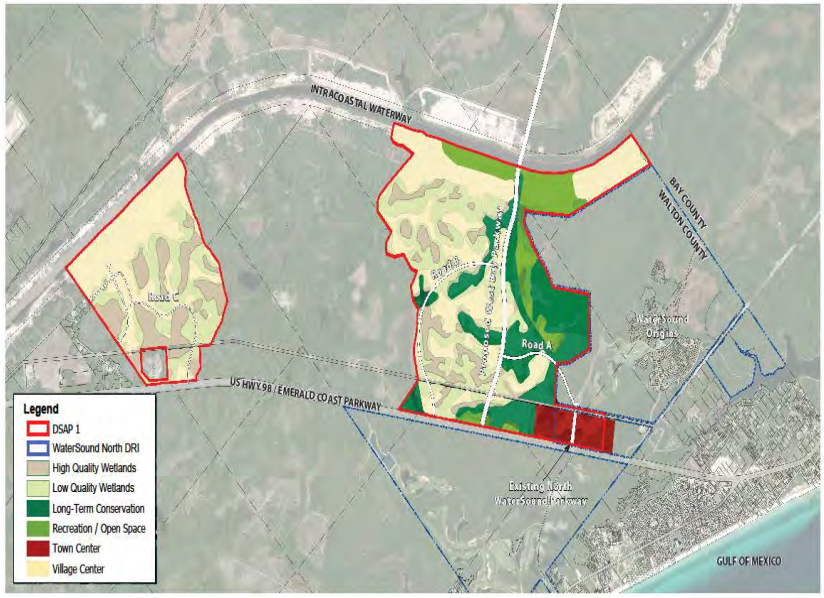
Commission District: 5

Requested Action: Major Development Order for the conceptual approval of 5,896 dwelling units; 407,000 square feet of commercial; 216,000 square feet of commercial/industrial (commerce park); 375 hotel rooms; 168,000 square feet of recreation/marina; and 36 holes of golf

Recommendation: to approve or deny

Project Planner: Kristen Shell, AICP, Planning Manager

This is a Major Development Order application submitted by VHB on behalf of the St. Joe Company requesting concept plan approval to develop a 2,435.52-acre land area located within the Bay Walton Sector Plan. These properties are generally located north of US Hwy 98, south of the Intracoastal Waterway, east of Serenoa Road and west of the Walton/Bay County line. The property is designated Bay-Walton Sector Plan Long-Term Conservation, Recreation/Open Space, Town Center and Village Center on the adopted Future Land Use Map. The properties are also zoned Bay-Walton Sector Plan Long-Term Conservation, Recreation/Open Space, Town Center and Village Center.



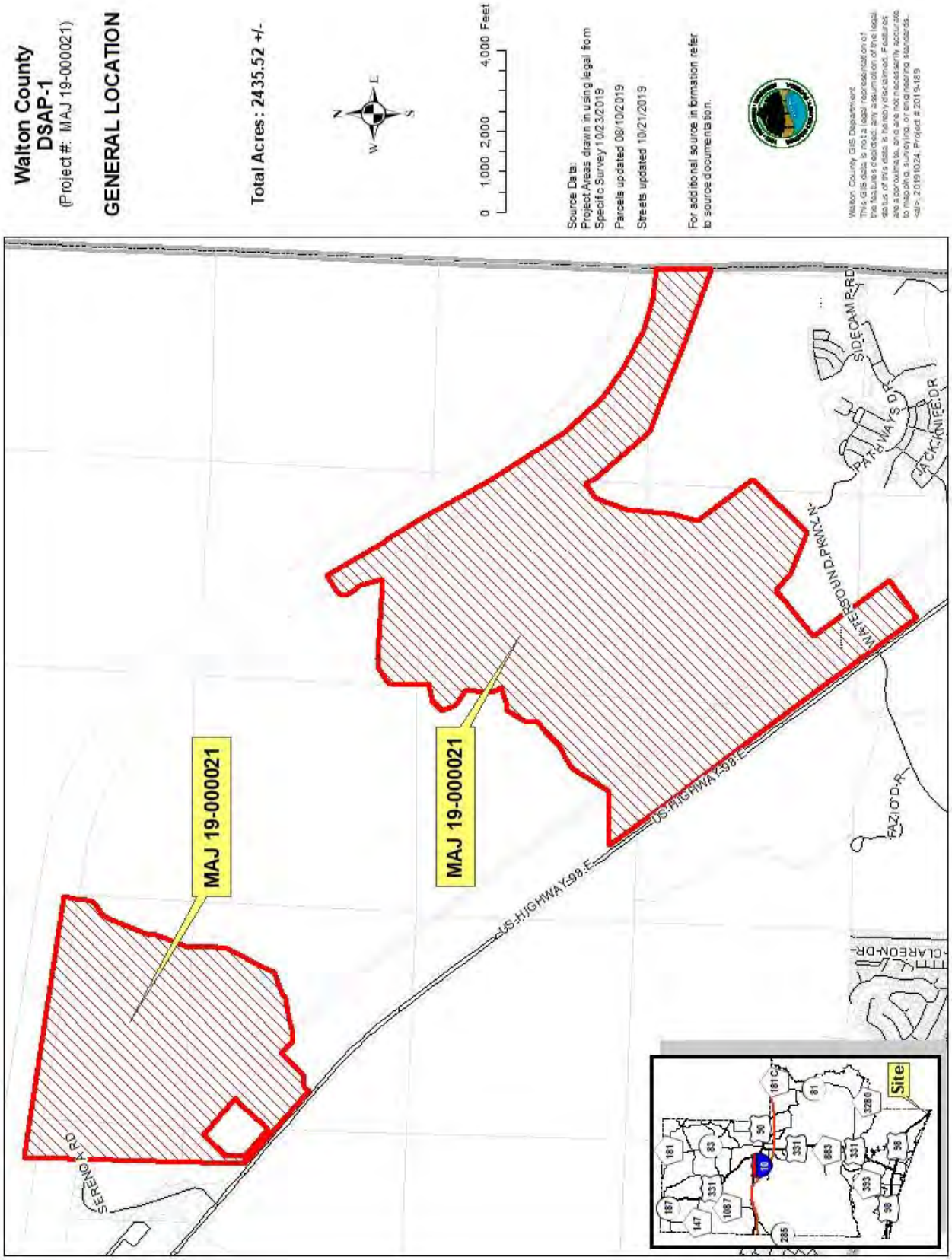
ST JOE vhb

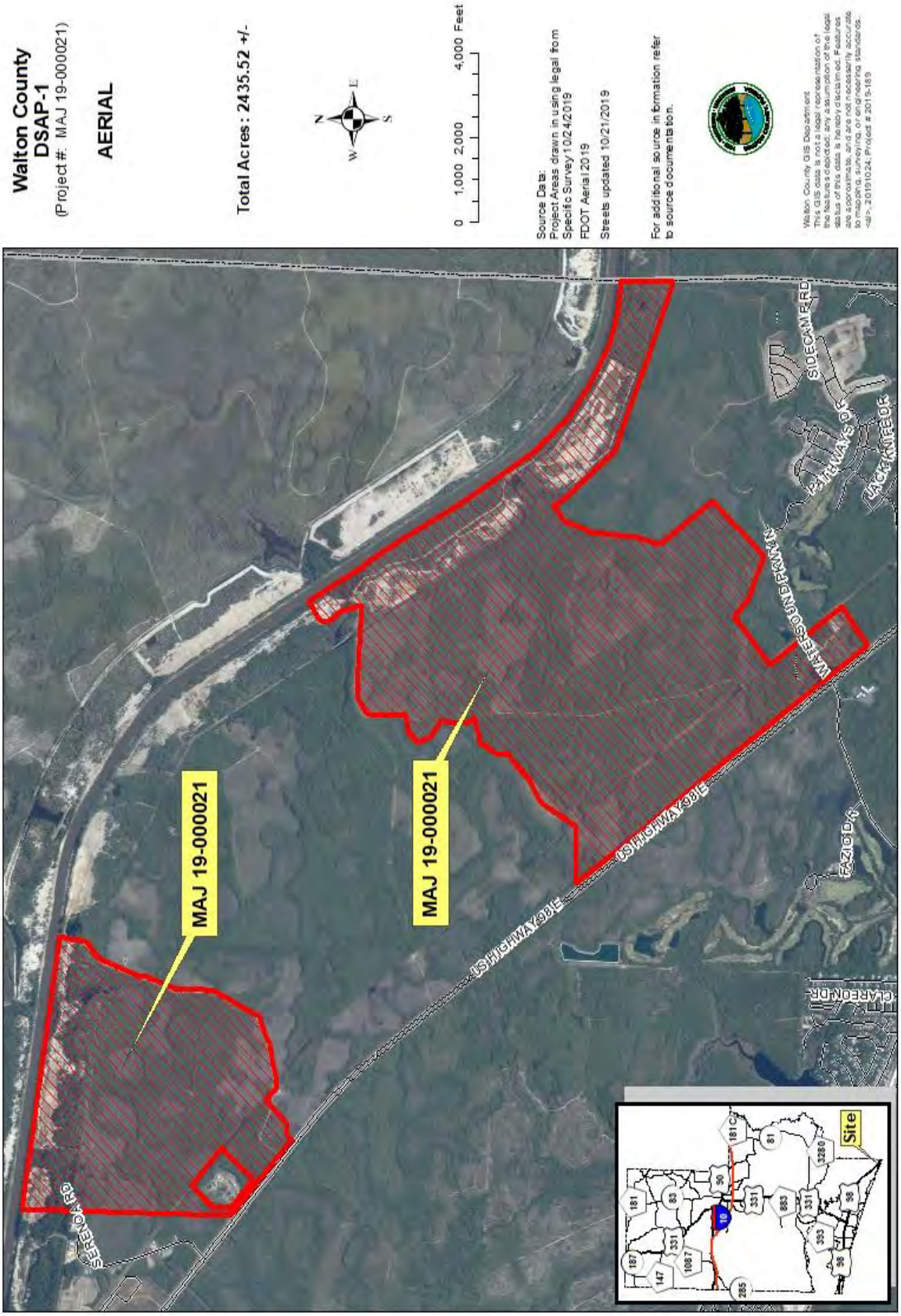
DATE: September 2019
PROJECT NUMBER: 66288.00
www.vhb.com
Data Source: Walton County GIS Department, VHB
FILE PATH: \\vhb\gis\proj\Tampa\66288.00 Walton County DSAP\Output\Map Exports

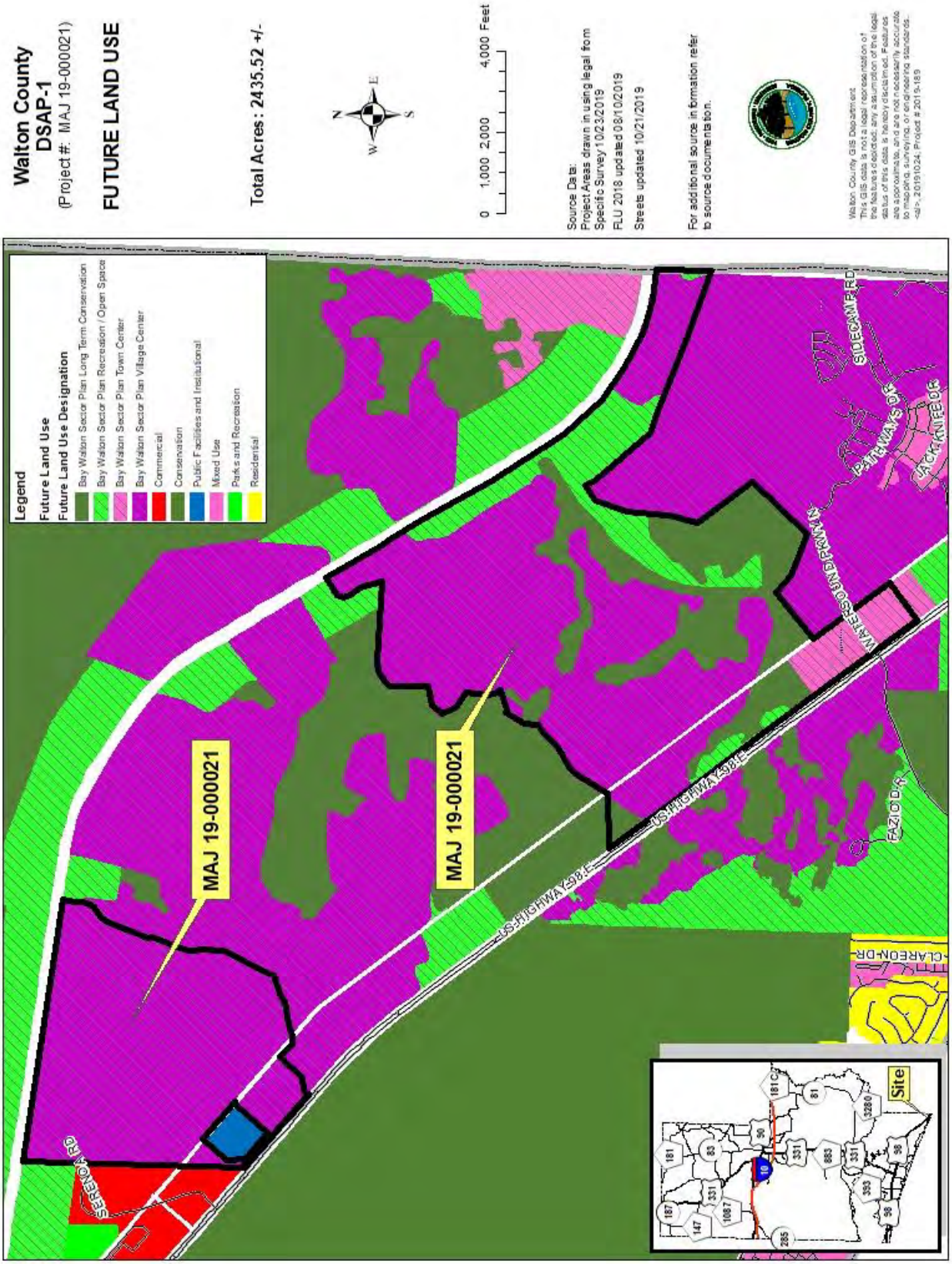
NOTES: THE INFORMATION PROVIDED ON THIS DOCUMENT SHOULD BE TREATED AS CONCEPTUAL ONLY AND MAY BE SUBJECT TO CHANGE
WETLANDS HAVE NOT BEEN DELINEATED AND DEVELOPMENT MAY CHANGE ACCORDINGLY

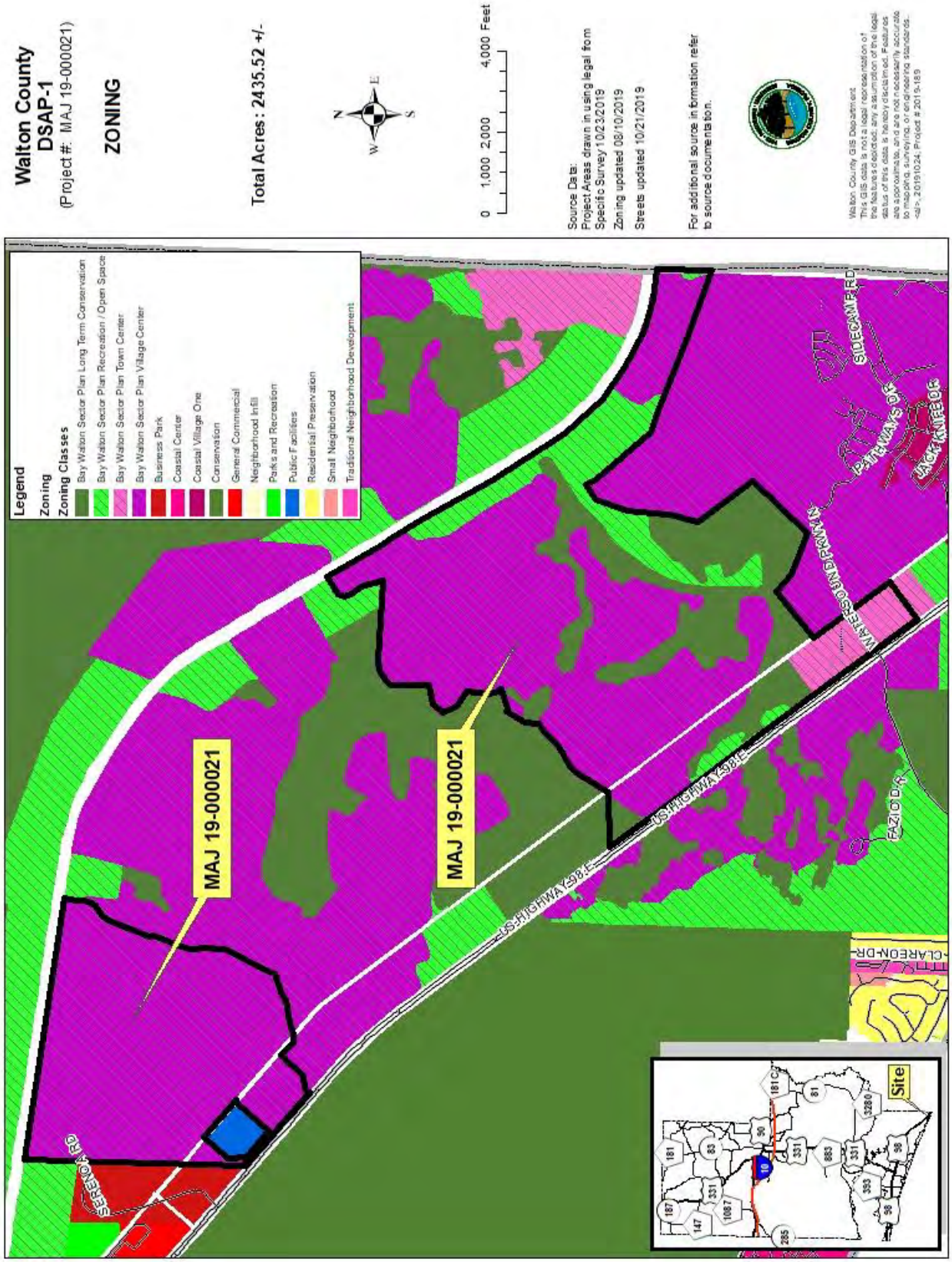
0 1300' 2600'

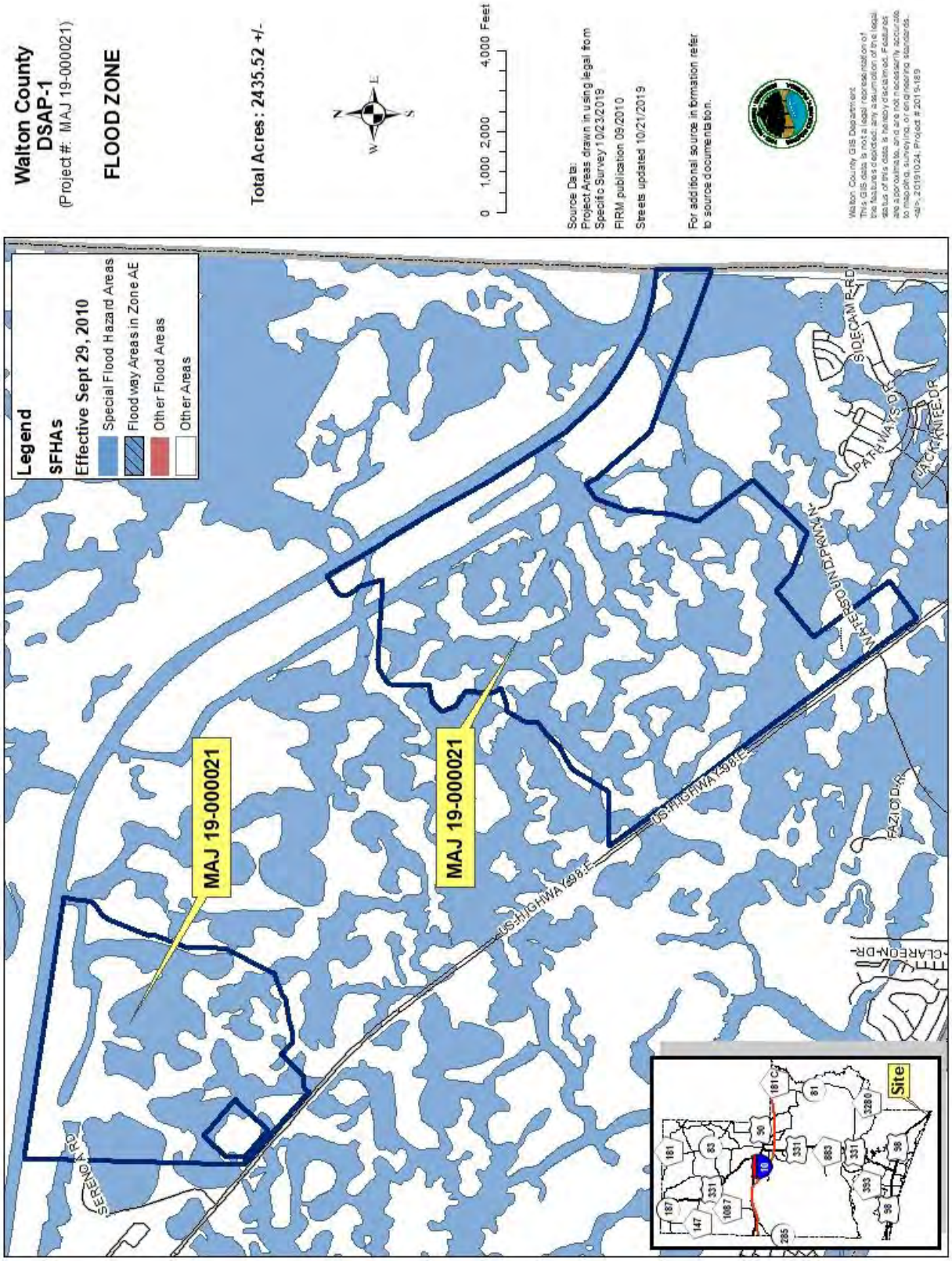
WALTON COUNTY DSAP 1
MAP D-2: CONCEPT PLAN
Walton County • Florida

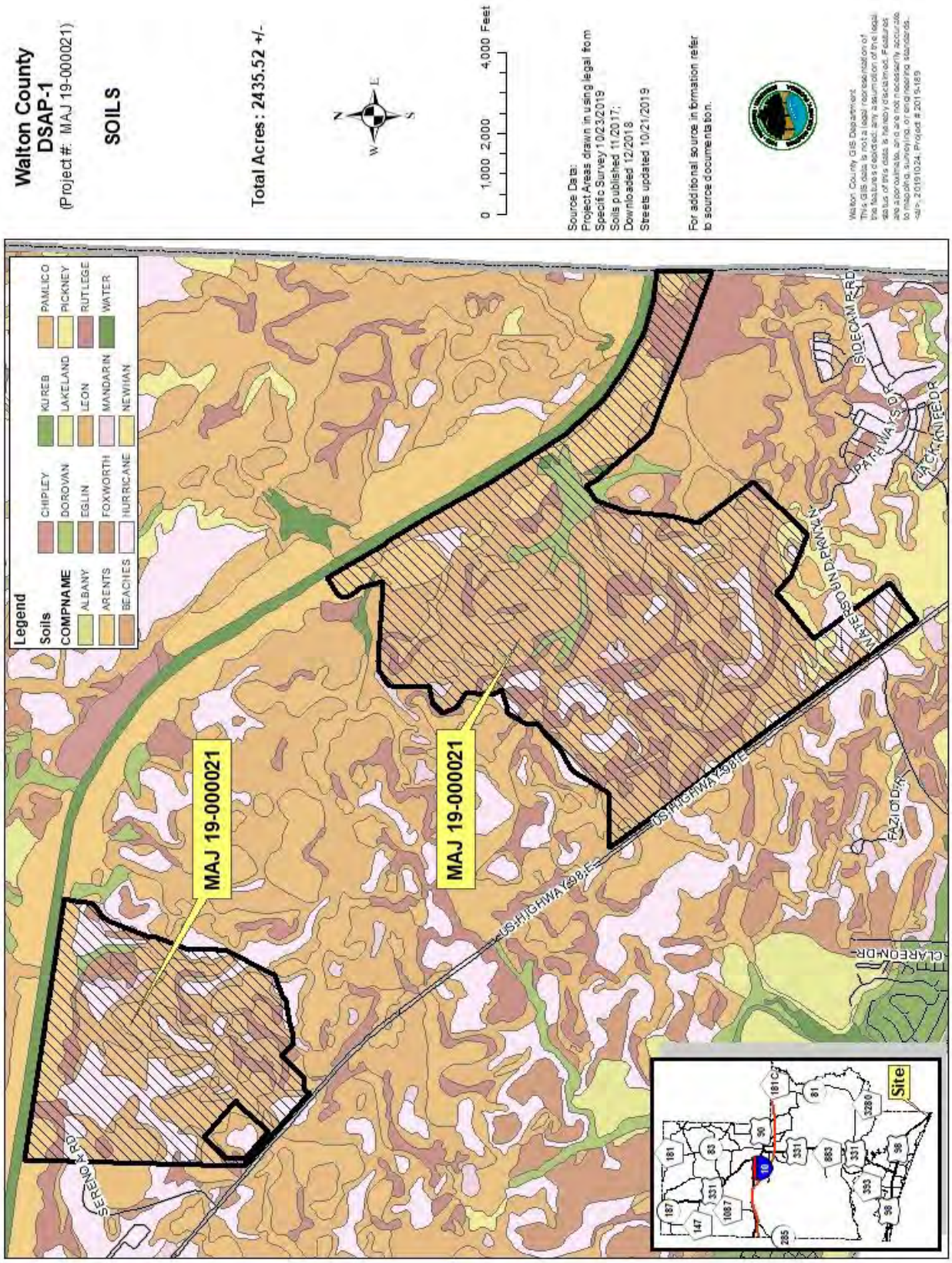

Walton County
DSAP-1
(Project #: MAJ 19-000021)
GENERAL LOCATION
Total Acres: 2435.52 +/-
0 1,000 2,000 4,000 Feet
Source Data:
Project Areas drawn in using legal from Specific Survey 10/23/2019
Parcels updated 08/10/2019
Streets updated 10/21/2019
For additional source in formation refer to source documentation.
Walton County GIS Department
MAJ 19-000021
MAJ 19-000021
US HIGHWAY 98 E
SERENO A RD
SIDECAMP RD
PATHWAYS DR
JACKKNIFE DR
WATERSOUND PKWY N
FAZIO DR
CLAREON DR
Site

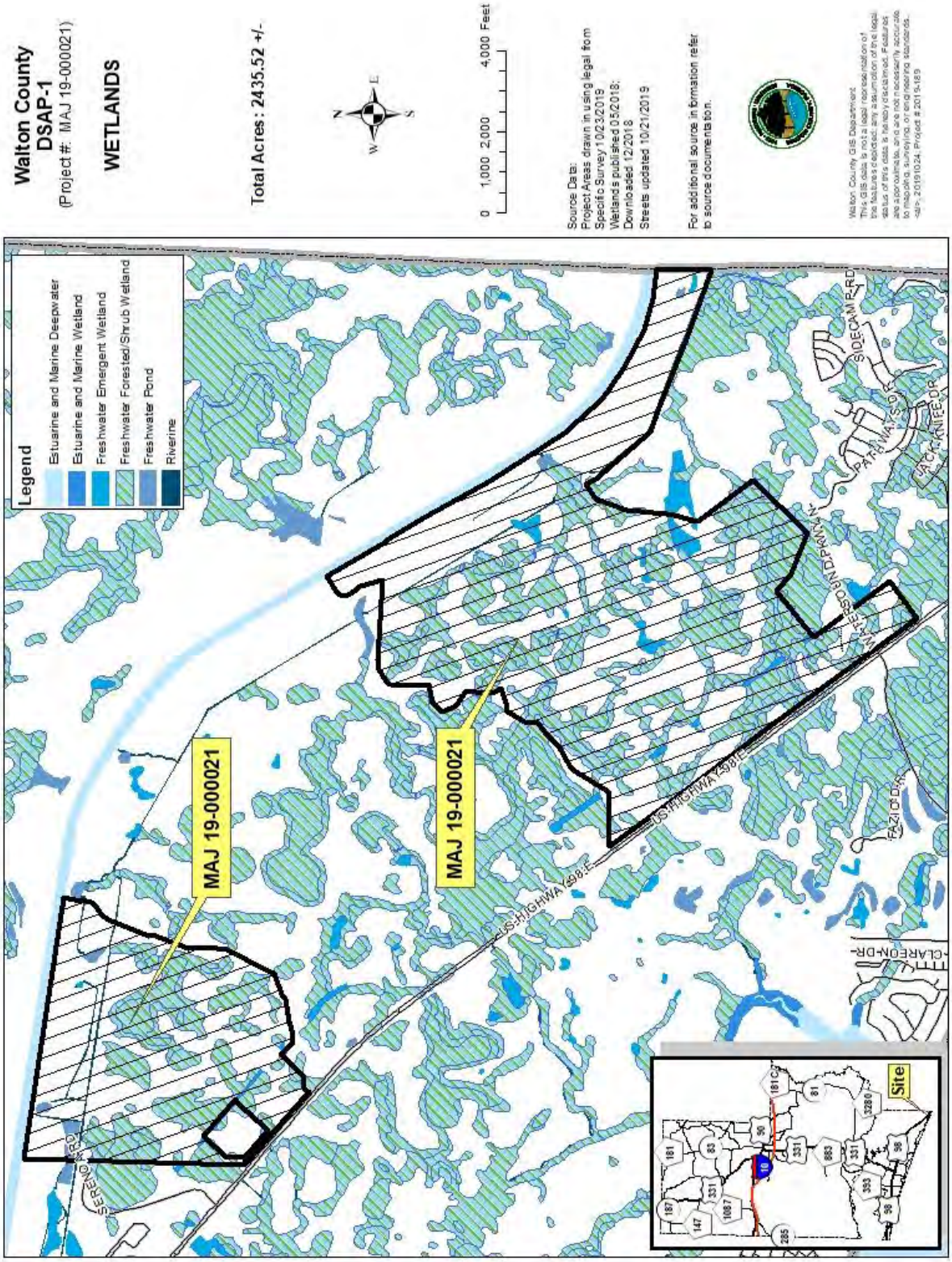

Walton County
DSAP-1
(Project #: MAJ 19-000021)
AERIAL
Total Acres: 2435.52 +/-
0 1,000 2,000 4,000 Feet
Source Data:
Project Areas drawn in using legal from Specific Survey 10/24/2019
FDOT Aerial 2019
Streets updated 10/21/2019
For additional source information refer to source documentation.
MAJ 19-000021
MAJ 19-000021
US HIGHWAY 98 E
US HIGHWAY 98 E
SERENDA RD
SIDECAMP RD
PATHWAYS DR
LACK KNIFE DR
WATERSOUND PKWY N
FAZIO DR
CLAREON DR
Site


Walton County
DSAP-1
(Project #: MAJ 19-000021)
FUTURE LAND USE
Total Acres : 2435.52 +/-
0 1,000 2,000 4,000 Feet
N
E
S
W
Source Data:
Project Areas drawn in using legal from Specific Survey 10/23/2019
FLU 2018 updated 08/10/2019
Streets updated 10/21/2019
For additional source information refer to source documentation.
Walton County GIS Department
This GIS data is not a legal representation of the features depicted; any assumption of the legal status of this data is hereby disclaimed. Features are approximate, and are not necessarily accurate to mapping, surveying, or engineering standards.
<a>, 20191024, Project # 2019-189
Legend
Future Land Use
Future Land Use Designation
Bay Walton Sector Plan Long Term Conservation
Bay Walton Sector Plan Recreation / Open Space
Bay Walton Sector Plan Town Center
Bay Walton Sector Plan Village Center
Commercial
Conservation
Public Facilities and Institutional
Mixed Use
Parks and Recreation
Residential
MAJ 19-000021
MAJ 19-000021
US-HIGHWAY-98
US-HIGHWAY-98
SERENOA RD
WATERSOUND PKWY
PATHWAYS DR
SIDECAR RD
JACKKNIFE DR
FAZIO DR
CLAREON DR
Site


Walton County
DSAP-1
(Project #: MAJ 19-000021)
ZONING
Total Acres : 2435.52 +/-
0 1,000 2,000 4,000 Feet
N
E
S
W
Source Data:
Project Areas drawn in using legal from Specific Survey 10/23/2019
Zoning updated 08/10/2019
Streets updated 10/21/2019
For additional source information refer to source documentation.
Walton County GIS Department
This GIS data is not a legal representation of the features depicted; any assumption of the legal status of this data is hereby disclaimed. Features are approximate, and are not necessarily accurate to mapping, surveying, or engineering standards.
<a>, 20191024, Project # 2019-189
Legend
Zoning
Zoning Classes
Bay Walton Sector Plan Long Term Conservation
Bay Walton Sector Plan Recreation / Open Space
Bay Walton Sector Plan Town Center
Bay Walton Sector Plan Village Center
Business Park
Coastal Center
Coastal Village One
Conservation
General Commercial
Neighborhood Infill
Parks and Recreation
Public Facilities
Residential Preservation
Small Neighborhood
Traditional Neighborhood Development
MAJ 19-000021
MAJ 19-000021
US HIGHWAY 98 E
US HIGHWAY 98 E
SERENOA RD
WATERSOUND PARKWAY
PARKWAY DR
SIDECAR RD
JACK KNIFE DR
FAZIO DR
CLAREON DR
Site


Walton County
DSAP-1
(Project #: MAJ 19-000021)
FLOOD ZONE
Total Acres : 2435.52 +/-
0 1,000 2,000 4,000 Feet
Source Data:
Project Areas drawn in using legal from Specific Survey 10/23/2019
FIRM publication 09/2010
Streets updated 10/21/2019
For additional source information refer to source documentation.
Legend
SFHAs
Effective Sept 29, 2010
Special Flood Hazard Areas
Floodway Areas in Zone AE
Other Flood Areas
Other Areas
MAJ 19-000021
MAJ 19-000021
SERENITY RD
US HIGHWAY 98 E
US HIGHWAY 98 E
WATERSOUND PKWY N
PATHWAYS DR
SIDECAM RD
JACK KNIFE DR
FAZIO DR
CLAREON DR
Site


Walton County
DSAP-1
(Project #: MAJ 19-000021)
SOILS
Total Acres: 2435.52 +/-
0 1,000 2,000 4,000 Feet
Source Data:
Project Areas drawn in using legal from
Specific Survey 10/23/2019
Soils published 11/2017;
Downloaded 12/2018
Streets updated 10/21/2019
For additional source information refer
to source documentation.
Legend
Soils
COMPNAME
ALBANY
ARENTS
BEACHES
CHIPLEY
DOROVAN
EGLIN
FOXWORTH
HURRICANE
KUREB
LAKELAND
LEON
MANDARIN
NEWHAN
PAMLICO
PICKNEY
RUTLEGE
WATER
MAJ 19-000021
MAJ 19-000021
US HIGHWAY 98 E
US HIGHWAY 98 E
SERENO RD
SIDECAMP RD
PATHWAYS DR
JACK KNIFE DR
WATERSOUND PKWY N
FAZIO DR
CLAREON DR
Site


Walton County
DSAP-1
(Project #: MAJ 19-000021)
WETLANDS
Total Acres: 2435.52 +/-
0 1,000 2,000 4,000 Feet
Source Data:
Project Areas drawn in using legal from Specific Survey 10/23/2019
Wetlands published 05/2018;
Downloaded 12/2018
Streets updated 10/21/2019
For additional source information refer to source documentation.
Legend
Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine
MAJ 19-000021
MAJ 19-000021
US HIGHWAY 98 E
SERENO RD
SIDECAMP RD
PATHWAYS DR
JACKKNIFE DR
WATERSOUND PKWY N
FAZIO DR
CLAREON DR
Site

Project Analysis:

Parcel Number: 22-3S-18-16000-001-0000; 13-3S-18-16000-001-0000; 14-3S-18-16000-001-0000; 23-3S-18-16000-001-0000; 24-3S-18-16000-001-0000; 08-3S-18-16000-001-0000; 23-3S-18-16000-001-0010; 26-3S-18-16000-001-0030; 22-3S-18-16000-001-0010*; 15-3S-18-16000-001-0010*; 09-3S-18-16000-001-0020*; 05-3S-18-16000-001-0030*; 11-3S-18-16000-001-0000; 09-3S-18-16000-001-0000; 15-3S-18-16000-001-0000; 23-3S-18-16000-001-0020*; 05-3S-18-16000-001-0000; 04-3S-18-16000-001-0000; 23-3S-18-16000-001-0030 (*Gulf Power Company easement)

Acreage: +/- 2,435.52 acres; The property is currently mostly vacant.

FLUM: Bay-Walton Sector Plan Long-Term Conservation, Recreation/Open Space, Town Center and Village Center on the adopted Future Land Use Map Zoning District: Neighborhood Infill

OZM: Bay-Walton Sector Plan Long-Term Conservation, Recreation/Open Space, Town Center and Village Center on the adopted Future Land Use Map

Summary of Proposed Concept Plan Development Schedule:

Land Use	Sector Plan - Walton County*	DSAP-1	Remaining Sector Plan Entitlements
Residential	24,706 DU	5,896 DU	21,810 DU
Retail/Commercial	510,000 SF	510,000 SF	0 SF
Office/Light Industrial/Manufacturing	113,000 SF	113,000 SF	0 SF
Hotel	530 Rooms	375 Rooms	115 Rooms
Golf Course	81 Holes	36 Holes	45 Holes

*Maximum development program for Walton County (Policy BW-1.1.15, Walton County Comprehensive Plan)

DSAP -1 Land Use Breakdown:

Use	Units
Residential	5,896 DU
Commercial	407,000 SF
Commercial/Industrial (Commerce Park)	216,000 SF
Hotel	375 Rooms
Recreation/Marina	168,000 SF
Golf Course	36 Holes

DSAP -1 Development Standards:

Land Use	Development Program[1]	Development Acres	Density/Intensity		
			DSAP 1[2]	Minimum	Maximum
Village Center	5,896 DU	850	6.9 du/ac	2 du/ac	15 du/ac
	436,000 SF	49	2 0% FAR	20% FAR	100% FAR; 200% FAR for mixed use; 60% ISR
Town Center	0 DU	0	n/a[2]	2 du/ac	15 du/ac
	187,000 SF	12	35% FAR	35% FAR	200% FAR; 60% ISR

[1]The exact program may be modified to accommodate for changes based on market and economic conditions in accordance with the Land Use Conversion Matrix in Section D of the DSAP.

[2]Future land use density requirements are to be met across the entire Village Center and Town Center land use categories within the Walton County portion of the Bay Walton Sector Plan.

Land Use Mix in DSAP-1:

Land Use	Land Use Types	Total Acres	Land Area Percentage[1,2]		
			DSAP-1	Min.	Max.
Village Center	Residential	850	50%	50%	70%
	Non-residential[3]	598	35%	15%	70%
	Open/Civic Space	256	15%	15%	No Max
	DSAP-1 Total	1,704	100%		
Town Center	Residential	0	0%	15%	50%
	Non-Residential[3]	68	70%	40%	70%
	Open/Civic Space	29	30%	15%	No Max
	DSAP 1 Total	97	100%		

[1]Land Use Mix percentages are to be met across the entire Village Center and Town Center land use categories within the Walton County portion of the Bay Walton Sector Plan.

[2]The range of land uses within each category is a guideline to provide an appropriate mix of development. These mixes should be flexible and may be modified if approved by the Planning Director at the time of site plan approval. In no case shall any use be reduced by more than 20% of the established minimum land area without undergoing a modification pursuant to the Walton County Land Development Code.

[3]Non-residential uses include office, light industrial and a minimum 15% of land area for support, retail, hotel and services.

Development Program[1,3]	Phase 1 (2020-2025)	Phase 2 (2026-2030)	Phase 3 (2031-2035)	Totals
Residential (Dwelling Units)[2]	1,964	1,966	1,966	5,896
Non-Residential (Square Feet)	327,000	148,000	148,000	623,000
Marina/Recreation (Square Feet)	47,000	60,000	61,000	168,000
Hotel (Rooms)	150	150	75	375
Golf Course (Holes)	18	9	9	36

[1]The exact program may be modified to accommodate for changes based on market and economic conditions in accordance with the Land Use Conversion Matrix in Section D: Transportation Analysis of this report.
[2]Residential dwelling units maybe attached or detached.
[3]The phasing program as shown herein is conceptual and subject to change based on market and economic conditions. Any change in phasing will not require approval by the Walton County Board of County Commissioners.

Previous Actions:

- The Bay Walton Sector Plan was adopted into the Walton County Comprehensive Plan on December 8, 2915 by Ordinance No. 2015-31 in accordance with Section 163.3245 Florida Statutes.

  Approvals within the Bay-Walton Sector Plan – The following land use approvals have been received within the Bay-Walton Sector Plan:

  - WaterSound North DRI – The Walton County Commission has approved the WaterSound North DRI on June 7, 2005 and the final order was filed on July 6th, 2005. This consists of 69 acres within the DSAP-1 area.

- This project was heard at the Technical Review Committee Meeting on November 6, 2019, where it presented as informational on the agenda.

- This project was heard at the Planning Commission meeting on November 14, 2019, where the Planning Commission voted to continue the project until the December 12, 2019 meeting.

- This project was heard at the Planning Commission meeting on December 12, 2019, where the Planning Commission voted to continue the project until the January 9, 2020 meeting.

<u>Consistency with Land Development Code and/or Comprehensive Plan:</u>

Walton County Land Development Code

The proposed DSAP is consistent with recently adopted Land Development Code sections related to DSAP implementation and zoning districts.

Walton County Comprehensive Plan

The Comprehensive Plan contains the policy framework necessary for the implementation of the Bay Walton Sector Plan. This policy framework focuses on natural resource protection, infrastructure provision and development, and the creation of quality communities and jobs. The proposed DSAP appears to be generally consistent with the following Objectives and Policies from the Walton County Comprehensive Plan and additional consistency reviews will follow as part of the implementing Minor Development Plan review process.

The vision is as follows from Goal BW-1:

"The Bay-Walton Sector Plan will protect ecological systems and provide connectivity to West Bay and Choctawhatchee Bay. These ecological systems will link wildlife habitat and environmental resources through interconnected corridors.

The Bay-Walton Sector Plan will promote development that fosters a sense of place by focusing on a "village" approach to nurture healthy social conditions. Additionally, it will garner places for economic advancement. Economic opportunities will consist of regional employment opportunities and commercial centers connected to residential villages.

Each Detailed Specific Area Plan will include development standards that protect environmental resources, promote community and assure human and ecological connectivity, create employment opportunity and promote a more compact urban form."

The general strategy from Goal BW-1:

"The general strategy for this element involves the following concepts and activities.

- Preserve the ecosystem by protecting resources in the Bay-Walton Sector Plan.
- Continuous updating of an accurate and reliable Long-Term Master Plan identified as the Bay-Walton Sector Plan, depicting long-term conservation/preservation areas, open space, general land uses planned for urban development and transportation systems.
- Work with the Walton County School Board to coordinate location of future needed educational facilities.
- Providing guidelines for planned unit or mixed-use development projects
- Encourage a wide-range of housing types for different ages with an age-restricted component
- Promote economic development.

- Provide adequate public recreation and open space for area residents.
- Plan for the public facilities (transportation, water and sewer) that will be needed to serve the Bay-Walton Sector Plan."

Central to these strategies and vision, the Comprehensive Plan includes policy direction and guidance related to each Detailed Special Area Plan (DSAP). Each DSAP is intended to further refine implementation and contain enough detail and programmatic information in order to ensure that the vision and strategy above are achieved through the development program. Policy BW-1.1.9 B establishes some of the criteria for each DSAP. These criteria relate back to the key planning elements of infrastructure or public facilities, **urban form**, **natural resources**, and **economic development**. Several key policies are listed below:

Economic Development

Policy BW-1.1.4 describes a mix of land uses needed to support residents of diverse ages, incomes, and family sizes including an age restricted component with facilities and services available to meet the needs of retirees, an economic development component linking the airport and beach tourism, and a market rate component geared towards workforce generated by the development.

Urban Form

The Comprehensive Plan clearly lays out a village concept for the Village Center land use category and zoning district.

Objective BW-1.4 and associated policies establish desirable urban design concepts. The concepts include compact design, incorporation of public spaces, and compatible scale and use.

Policy BW-1.2.3: Provide within the Bay-Walton Sector Plan a variety of housing by type, value and location to serve the housing needs for the Bay-Walton Sector Plan. Provide a range of housing locations from rural and low density to urban with smaller lots and multi-family. Housing may also be provided in Village Center and Town Center over non-residential uses if appropriate. Also provide a range of housing values ranging from affordable/workforce housing to age-restricted or age-targeted housing for senior living to market rate or family housing. Within districts the highest density housing will be located in the planned centers (Town Center and Village Center) with housing in the Village Center compatible with the neighborhood scale design requirements.

Policy BW-1.2.4: Each DSAP must demonstrate that sufficient commercial and retail land uses are planned to support well planned communities for surrounding neighborhoods, and shall be in the form of complete, integrated communities. Sufficient commercial and retail may be in an adjacent DSAP if in close proximity to proposed DSAP.

Policy BW-1.2.5: Each DSAP will further describe and detail mixes of proposed land uses, restrictions on proposed uses, management of development activities and general mitigation of impacts, and obligations for facilities required within each subsequent development component of the planning area. Within each DSAP with residential land uses, a range of types of units may be considered so long as a 15 unit per acre gross density is not exceeded overall.

Policy BW-1.2.13

DSAP Review:

At the time of DSAP review, the Village Center land use district shall be further detailed to reflect a planning framework consisting of a hierarchy of compactness, density, and connectivity. The specific composition and design of each Village Center may be different, based on the unique characteristics of each community and specific site conditions.

A compact central core or mixed-use center shall be identified for each Village Center. The central core or mixed-use center shall consist of residential, neighborhood scale commercial, recreational, and community uses that meet the daily functional needs of the residents. Around the central core or mixed-use center will be a series of residential neighborhoods. The surrounding neighborhoods will be compact, clustered and surrounded by distinct edges that may consist of open space, conservation areas, or wildlife corridors. The actual layout of streets and lots will vary based on the scale of each neighborhood and specific site conditions. While the primary recreation facility will be in the central core or mixed-use center of each Village Center, other outdoor places and parks will be distributed throughout the neighborhoods for the convenient use of nearby residents. These parks and outdoor places could be used for gathering and events, passive recreation and other community uses, as well as organizing neighborhoods. At the time of DSAP review, each Village Center shall identify the appropriate hierarchy of residential density with the central core or mixed-use center consisting of the highest density and transitioning to lower densities away from the central core or mixed-use center. It is also at the time of DSAP review, that the approach to coordinate the timing of the commercial and residential development of each Village Center will be identified to make sure there is sufficient commercial development to serve the residential uses.

A circulation network that is based on the principles of connectivity, hierarchy, and safety for motorized vehicles, pedestrians, and bicyclists shall be identified for each Village Center. The central core or mixed-use center of each Village Center will be connected to the surrounding neighborhoods and other Village Centers by a network of streets, bicycle lanes, sidewalks, multi-use trails, or open space corridors. The network of multi-use trails will generally knit neighborhoods together and provide links to regional open spaces.

In cases where a portion of a Village Center land use is immediately adjacent to a Town Center land use, the Town Center land use may function as the central core or mixed-use center for that portion of the Village Center land use.

A graphic illustration of the Village Center planning framework that will be further detailed in each DSAP is depicted below. The graphic illustration is provided for illustrative purposes only and is not intended to be interpreted literally.

Village Centers
Conceptual Planning Framework

Policy BW-1.6.6: Landscape/streetscape materials, street lighting, and bicycle racks within central core or mixed-use centers shall be included as part of urban infrastructure.

Policy BW-1.13.2: A central public space shall be provided within each planned center (Town Center and Village Center) with connections to surrounding communities and neighborhoods. This may be in the form of a park, central square, or other civic use. Neighborhoods may also be served internally with smaller green space areas such as tot lots, greenways or greens.

Transportation

The following Comprehensive Plan Policies are related to the DSAP and transportation facilities:

Walton County Comprehensive Plan **Policy BW-1.1.4 D "**Providing an enhanced transportation network in western Bay County and eastern Walton County including:

1. Increased transportation internal capture and reduced external traffic;
2. Key linkages to improve the road network between western Bay County and eastern Walton County and connecting the beaches to the airport commerce;
3. An interconnected street system with multi-use paths connecting residential villages with areas for commerce and employment;
4. Support for multi-modal transportation options especially bike, pedestrian and golf carts to minimize use of automobile;
5. Demonstration of fiscal neutrality;
6. Community facility sites for schools, fire, EMS, and other governmental activities;"

Walton County Comprehensive Plan **Policy BW-1.1.9.B.9** states that each DSAP must include "The need for an accommodation of various multimodal travel opportunities that accommodates modal choice opportunities within and between DSAPs within the Bay-Walton Sector Plan including bicycle and pedestrian facilities and public transportation services if available, including the need to accommodate beach access and transportation to the beach, if applicable. It is the overarching intent of the Bay-Walton Sector Plan that DSAPs incorporate the best practices in bicycle/pedestrian and transit friendly design, and that future residents of the communities be given options for travel choices."

Objective BW-1.5 states that the development will provide a transportation system that serves the various transportation modes within the Bay Walton Sector Plan and is integrated into the larger regional transportation system. Included Policy BW 1.5.1 B that states development within the DSAP must be designed to accommodate transit vehicles and linkage within the regional transit system, and linkage with pedestrian/bicycle facilities. Subsection D of the same policy requires standards and guidelines for bicycle lanes, connectivity, sidewalks, multi- use paths and trails.

Walton County Comprehensive Plan **Objective BW-1.6**: Promote viable transportation choices other than the privately-owned automobile, to include walking and bicycling in a safe atmosphere.

Walton County Comprehensive Plan **Policy BW-1.6.1**: All land uses within the Bay-Walton Sector Plan shall utilize pedestrian friendly design principles by means of multi-use paths, sidewalks, bike trails and/or nature walks to connect centers, communities and neighborhoods. Each DSAP must demonstrate both internal connection within the DSAP and externally with adjacent DSAPs.

Policy BW-1.6.4: Develop centers, communities and neighborhoods that are clearly defined at the edges, integrated and more walkable by connecting centers, communities and neighborhoods with a multi-modal network of pedestrian friendly streets, multi-use paths, greenways and/or trails.

Policy BW-1.6.5: Provide bicycle and pedestrian facilities as an option to vehicular trips; each village shall also provide convenient locations for transit facilities where appropriate and where transit service is available.

Policy BW-1.6.7: Encourage a variety of transportation modes. To manage traffic, promote livability, provide transportation options, provide infrastructure that supports economic development, and accommodate a variety of users, multiple modes of transportation shall be included as part of the Bay-Walton Sector Plan.

Provide for a variety of transportation modes as follows:

Provide a comprehensive and integrated network of facilities that are safe and convenient for people of all ages and abilities traveling by foot, bicycle, automobile, public transportation, and commercial vehicle.

At a minimum, the transportation network shall consider the standards identified in the Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways (the Florida Greenbook), the Manual on Uniform Traffic Control Devices (MUTCD) and the Plans Preparations Manual (PPM) but are not required to follow these.

Consider the guidelines in the Florida Bicycle Facilities Planning and Design Handbook, the Florida Pedestrian Planning and Design Handbook, the AASHTO Guide for Planning, Design, and Operation of Pedestrian Facilities, and the AASHTO Guide for the Development of Bicycle Facilities.

Coordinate public transportation efforts with existing providers to determine the feasibility of a regional system. Discussions with Bay Town Trolley, Walton County, and Okaloosa County Transit shall occur to identify routes that can be extended to provide service to the Bay-Walton Sector Plan area, the location of existing and future stops, and potential service overlaps to provide for regional transit opportunities.

Walton County Comprehensive Plan **Policy BW-1.1.11**: Standards for Review. Each DSAP shall conform to the Bay-Walton Long Term Master Plan and demonstrate all of the following: **(C)** That the required on-site and off-site infrastructure will be available to serve each development phase as it is constructed;

Policy BW-1.5.2: Each DSAP must link land use and transportation planning. The transportation analyses must be based on the proposed land uses and demonstrate coordination with Walton County's and adjacent local governments' transportation plans as well as regional, state, and federal transportation plans. The transportation analysis must include an assessment of the role of multi-modal facilities.

Transportation facilities and the development that they support will be planned and designed to avoid and minimize adverse impacts to existing communities and regionally significant resources and roadways and to avoid creating limitations on the management of those resources. A copy of the supporting transportation analysis for the DSAP will be provided to Bay County, Walton County, the City of Panama City Beach, the Florida Department of Transportation, the Department of Economic Opportunity, the West Florida Regional Planning Council and other local governments and agencies if requested.

Policy BW-1.5.5: Access and mobility. The transportation network within and connecting to the Bay-Walton Sector Plan shall be designed or improved to accommodate access and maximize mobility through the following principles:

- The transportation network shall be designed to minimize dead-end streets.
- Any site surrounded by potentially developable land shall be planned with regularly spaced street easements and/or vehicular interconnections in place, allowing connections into future development. Each DSAP shall determine compatibility of uses based on the context and characteristics of each DSAP, and generally environmental features, and other physical characteristics.
- Access management standards developed by the Florida Department of Transportation shall be followed for state-maintained facilities and implemented throughout the network.

Policy BW-1.13.1: Development within the Bay-Walton Sector Plan area shall be required to dedicate land for public use which may be in the form of passive and active parks, open space, recreation areas, town squares, greenways, trails and other forms of public use facilities in close proximity to centers, communities and neighborhoods.

Public Facilities:

Policy BW 1.7.3 All new development within the Districts shall connect to central water, wastewater and irrigation facilities. Exceptions to this policy include remote golf course facilities, model homes, construction trailers and uses which are permitted without DSAP review. Agriculture/Timberland uses may operate on septic tanks and wells.

Policy BW-1.13.4: Public access points shall be reserved in appropriate publicly owned locations in the area around West Bay and along the Gulf Intracoastal Waterway.

Policy BW-1.14.1: Each DSAP shall identify the land necessary for fire, law enforcement, and emergency medical services.

Policy BW-1.14.2: Coordinate land use and education facilities within the DSAP by identifying the need for and location of schools and education facilities.

Policy BW-1.14.3: Locate schools to provide safe pedestrian access, shortened walking distances and opportunities for sharing other community resources such as parks and recreational facilities, libraries and other services.

Environment:

Objective BW-1:8 and associated policies related to the designated long-term conservation areas. Policy BW-1.8.3 requires that conservation easements be placed on all property designated as Long Term Conservation Area at the time a DSAP becomes effective.

Objective BW-1.9 and BW-1.10 related to the Regional General Permit and Ecosystem Management Agreement, establishing wetland buffers where none exist.

Proposed Walton County Mobility Plan

Appendix A provides conceptual road typical cross sections that may be included for this development within the proposed Mobility Plan and the proposed overall Mobility Plan for this area. In addition, the DSAP Concept Plan includes some residential typicals as well as Table B-10 and Map B-2.2 which depicts the roadway network.

Comments:

Public Comments:
No comments have been received as of the date of this report.

GIS/Information Resources Department Comments:
No Comments Received

South Walton Fire Comments:
Memo dated December 9, 2019 attached (Attachment B)

South Walton County Mosquito Control District Comments:
No comments received.

Engineering Comments per memo dated October24, 2019:
Dewberry has completed the engineering review for the above referenced project. No comments where provided related to the traffic analysis provided by the applicant or stormwater program.

Environmental Comments as per memo dated January 29, 2019:
The proposed DSAP appears to meet the minimum Natural Resource Protection Standards of the Land Development Code. Environmental Planning staff has no further comments at this time.

Flood Plain Review Comments as per memo dated January 29, 2019.
The proposed DSAP appears to meet the minimum Floodplain requirements of the Land Development Code.

Public Works Engineering Technical Review Comments:
No Comments Received

Florida Department of Health Comments per memo dated October 18, 2019
"The proposal will utilize public water and sewer."

Summary:

The proposed DSAP-1 is generally consistent with the Comprehensive Plan and Land Development Code. Consistency will be required to be maintained through the development approval process. Staff has the following recommendations that may be considered by the Planning Commission and applicant.

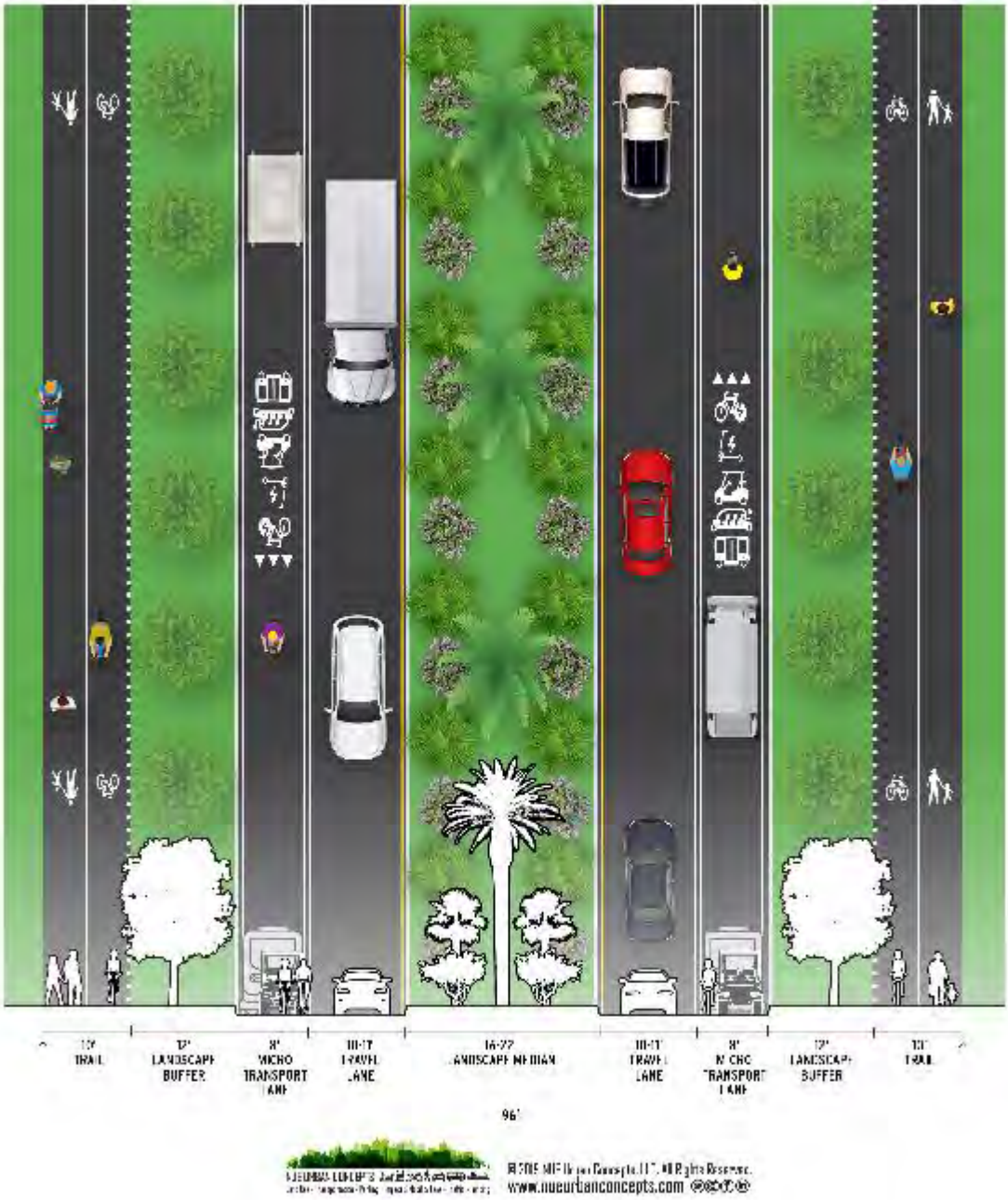
The Planning Commission also should note that the DSAP includes several deviation requests similar to PUD deviations from the Land Development Codes requirements. These deviations are listed beginning on page 22 of the proposed DSAP Concept Plan. Staff has no objection to these deviation requests.

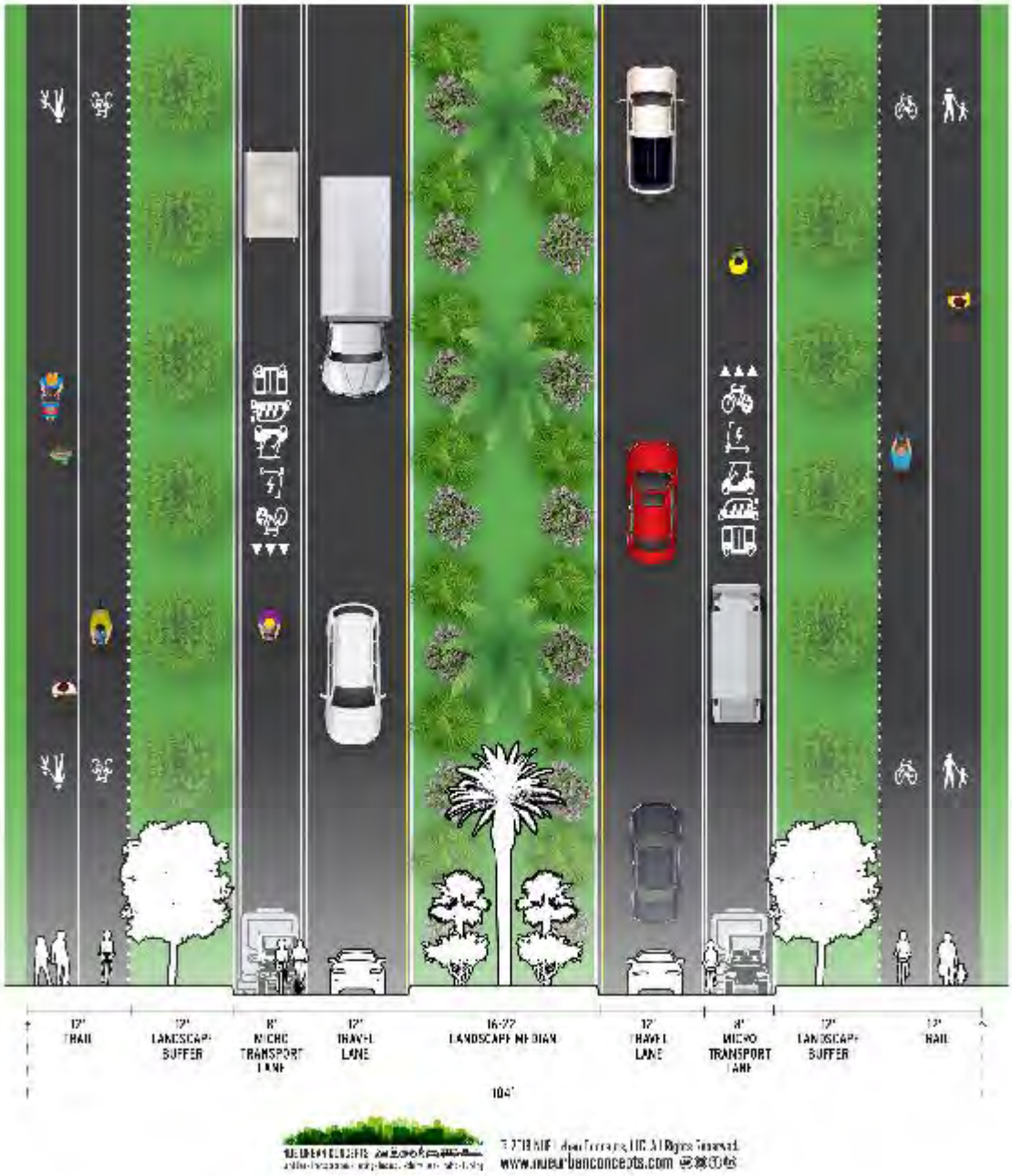
Review/Approval Process – Next Steps:

1. Board of County Commissioners Public Hearing
2. Individual projects submitted as Minor Developments Plans (Minor DO Process)

**ALL ABOVE REFERENCED TECHICAL REVIEW REPORTS MAY BE VIEWED IN THE PLANNING DEPARTMENT DURING REGULAR BUSINESS HOURS OR ONLINE THROUGH THE CITIZEN SERVE PROJECT FILE.

APPENDIX A – MOBILITY PLAN TYPICALS AND OVERALL PROPOSED PLAN




12'
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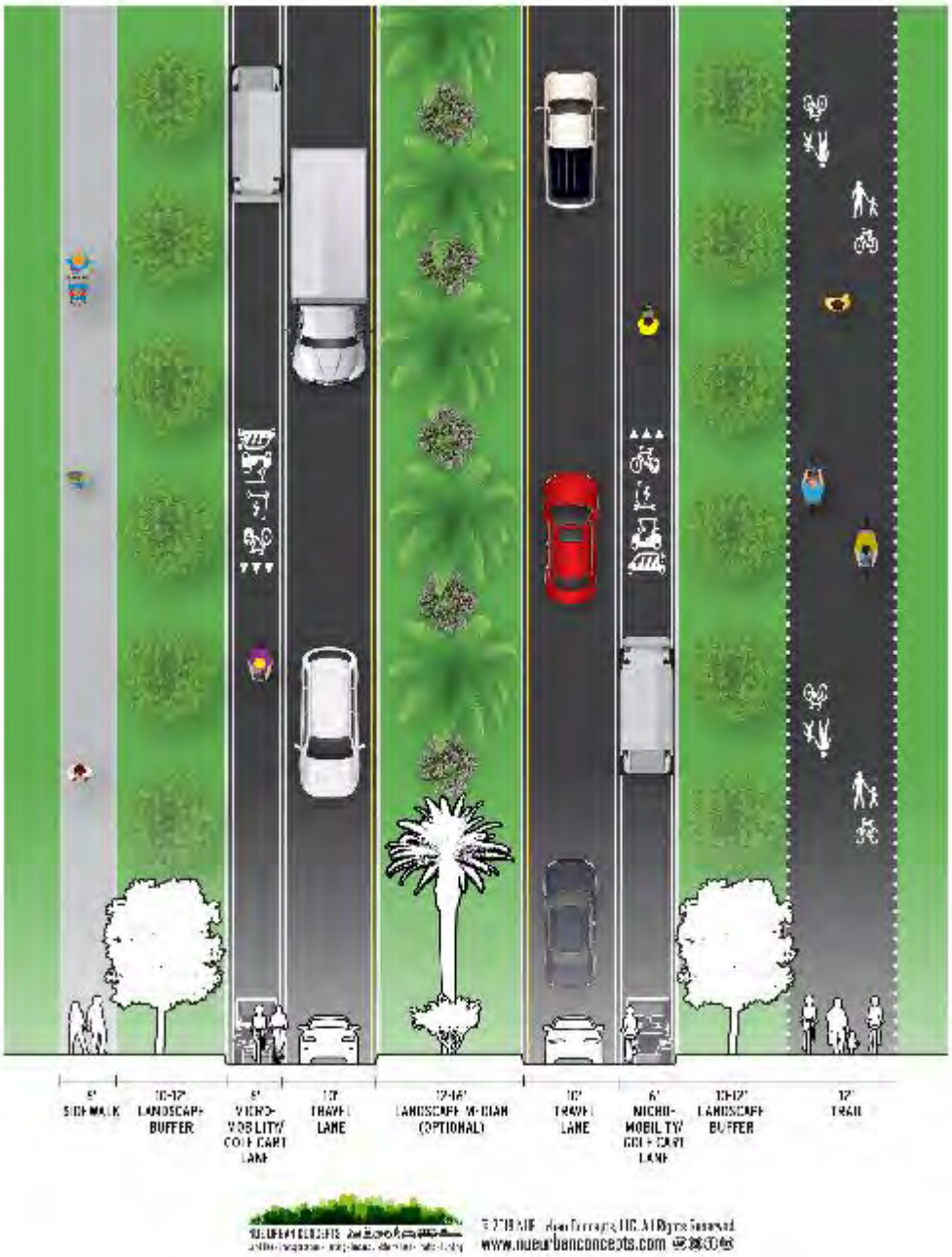
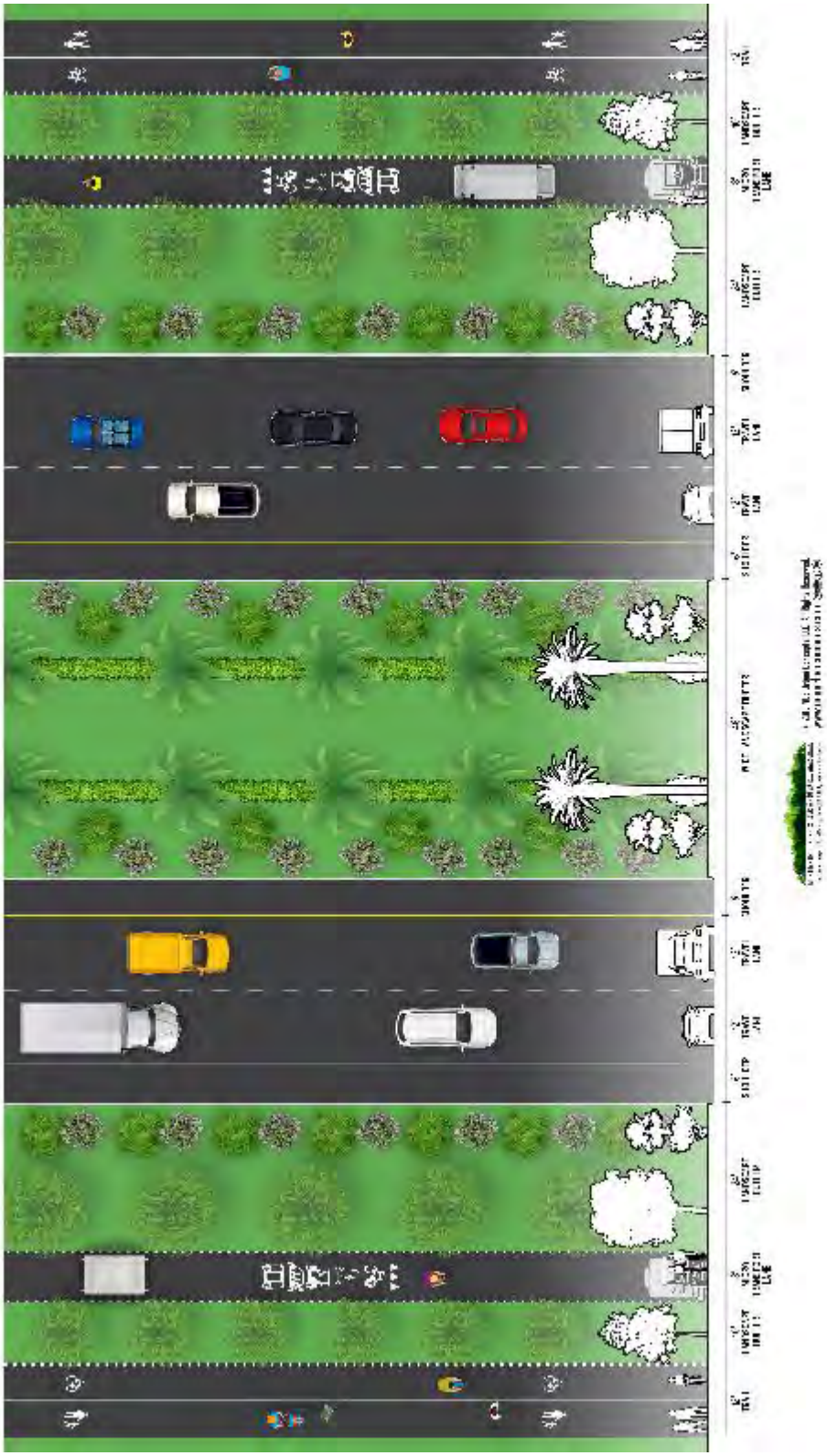
8'
MICRO
TRANSPORT
LANE
12'
TRAVEL
LANE
16-22'
LANDSCAPE MEDIAN
12'
TRAVEL
LANE
8'
MICRO
TRANSPORT
LANE
12'
LANDSCAPE
BUFFER
12'
TRAIL
104'
www.urbanconcepts.com

8' PATH
10-12' LANDSCAPE BUFFER
6' MICRO-MOBILITY/ GOLF CART LANE
10' TRAVEL LANE
12-16' LANDSCAPE MEDIAN (OPTIONAL)
10' TRAVEL LANE
6' MICRO-MOBILITY/ GOLF CART LANE
10-12' LANDSCAPE BUFFER
8' PATH
www.nueurbanconcepts.com


5' SIDEWALK
10-12' LANDSCAPE BUFFER
8' MICRO-MOBILITY/ GOLF CART LANE
10' TRAVEL LANE
12-16' LANDSCAPE MEDIAN (OPTIONAL)
10' TRAVEL LANE
6' MICRO-MOBILITY/ GOLF CART LANE
10-12' LANDSCAPE BUFFER
12' TRAIL
www.nueurbanconcepts.com



WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: DeFuniak Springs

Please indicate any recent development within your community from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in your community.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					
	Residential	6 Single Family Homes	Azalea Trace	Possible flood zone	New Construction
A Proper Wash Navarre LLC	Commercial		822 Us Hwy 331 S		
CHELCO	Commercial		N HWY 331		
	Residential	5 Single Family Homes	Hidden Lakes Trl	Possible flood zone	New Construction
Child Development Schools Inc.	Commercial		355 Us Hwy 90 W		
COMMUNITY SOUTH CREDIT UNION	Commercial		25-3N-19-19330-000-0081 775 US HWY 331 S		

Known or Anticipated Development in the Next Five (5) Years					
Eagles Crossing	1400 acres Mixed Use Development	-2,291,474 SF of Professional Office -1,527,649 SF of Retail -1,527,649 SF of Supermarket -1,527,649 SF of Restaurant -8,402,071 SF of Shopping Center -309 Single Family Units -3,272 Townhome Units -5,232 MultiFamily Units	Parcel Number(s): 11-2N-19-18000-001-0060 and 11-2N-19-18000-001-0000 SE Intersection of US 331 & I-=10		Phase I anticipated to begin in 2021-22. Total development construction within next 5-10 years.

Bay Springs	289 acres Mixed Use Development	-200,000 SF Commercial -281 Single Family Units -180 Townhome Units -312 Multifamily Units	SW Intersection of US 331 & I-10		Pre-application stage.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: CITY OF FREEPORT

Please indicate any recent development within your community from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in your community.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					
ATTACHED					

Known or Anticipated Development in the Next Five (5) Years					
ATTACHED					

updated 3/4/19 SHH

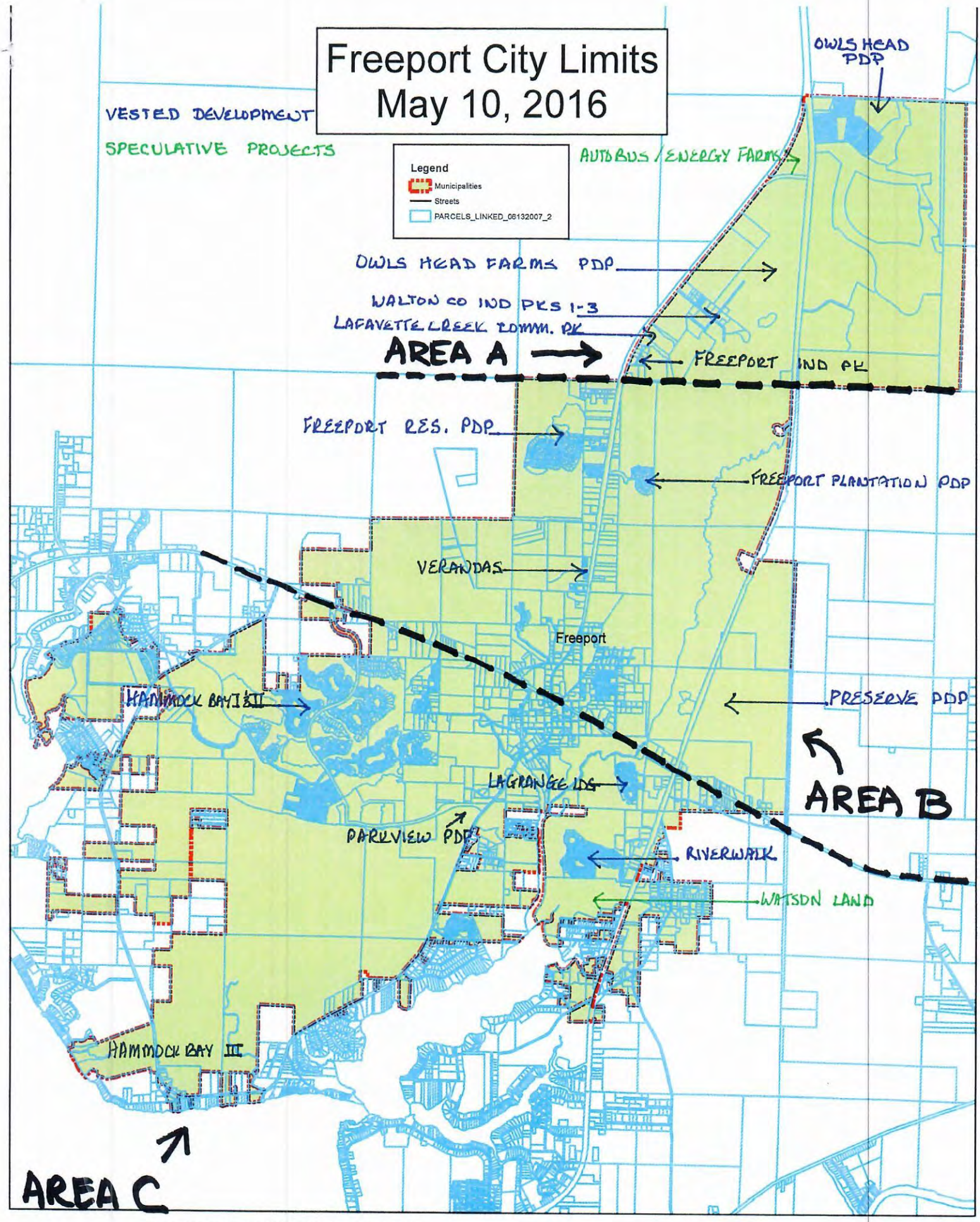
City of Freeport Development

AREA	VESTED DEVELOPMENT/UNDER CONSTRUCTION	*FUTURE (SPECULATIVE) DEVELOPMENT*
Area A	**Owls Head PDP** 1865 du, 190,000 non-res., 250 hotel rooms: 215 jobs	***Autobus Research & Development Center*** *500,000 sf R&D, 100 du, 100,000 ancillary non-res.: 350 jobs*
	WC Industrial Park @ Freeport Phase 1-3 300,000 sf commercial/light industrial: 150 jobs	***Energy Farms*** *100,000 sf solar/wind energy research/development: 50 jobs*
	Freeport Industrial Park 100,000 sf commercial/light industrial: 50 jobs	
	Lafayette Creek Commerce Park 173,784 sf commercial/warehousing: 85 jobs	
	Owls Head Farms PDP 601 du/332,271 sf commercial: 250 jobs	
Area B	**Freeport Residential PDP** 450 sf	
	Freeport Plantation PDP 495 du, 50,000 non-res.: 50 jobs	
	Verandas 294 sf	
	Preserve PDP 1798 du/599,000 comm/100 hotel rooms: 609 jobs	
Area C	**Hammock Bay PDP Phase I & II** 2275 du, 35,000 non-res.: 35 jobs	***Watson Land Project*** *340 du, 325,000 non-res.: 175 jobs*
	LaGrange Landing PDP 494 du	
	Riverwalk PDP 1865 du/50,979 sf non-res.: 50 jobs	
	Hammock Bay Phase III PDP 550 du/ 14 ac. comm: 20 jobs	
	Parkview PDP 74 du/3.18 ac comm: 5 jobs	
	Totals: 10,761 du, 1,981,034 sf non-res., 350 hotel rooms, 1,519 jobs	***Totals: 440 du, 1,025,000 non-res., 575 jobs***

Employment Estimates: Non-res: 1 job/1000 sf Hotel: 1 job/10 rooms
Comm./Lt. Ind.: 1 job/2000 sf Comm./Warehousing: 1 job/2000 sf R & D: 1 job/2000 sf

THIS INFORMATION IS COMPILED FROM LARGE DEVELOPMENT PROJECTS UNDER CONSTRUCTION OR PLANNED WITHIN THE CITY AND SHOULD NOT BE CONSTRUED TO BE ALL INCLUSIVE. THE INFORMATION PERTAINING TO ESTIMATED JOBS IS PROJECTED FOR PLANNING PURPOSES ONLY.

Freeport City Limits
May 10, 2016



Produced by the Planning Department of the City of Freeport.
This map is for general reference only.
Data layers that appear on this map
may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT A SURVEY AND
IS NOT TO BE USED FOR NAVIGATION.

updated 3/4/19

0.0510.2 Miles

N W E S

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: City of Paxton

Please indicate any recent development within your community from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in your community.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					
Paxton Utilities	Community	Infrastructure	anticipated	Water utilities service	Upgrade water lines to ensure quantity and quality
Paxton Utilities	Community	Infrastructure	anticipated	Sewer Service	Relining man holes to prevent infiltration
City of Paxton	Community	Structure	Anticipated	Professional complex	Multi-unit professional building – Economic Development
City of Paxton	Community	Structure	Anticipated	Health Clinic	Permanent structure to house the Health Department Annex and/or Health clinic
City of Paxton	Community	Structure	Anticipated	City Hall/Storm Shelter	Replace current City Hall with new structure to include a storm shelter.

Known or Anticipated Development in the Next Five (5) Years					

Walton County Local Mitigation Strategy Update 2020

Appendix F: Public Involvement and Meeting Materials

Walton County
Local Mitigation Strategy Update Project
Kickoff Meeting
AGENDA

January 23, 2020
1:30 pm – 3:30 pm

Walton County EOC
75 South Davis Lane DeFuniak Springs, FL 32435

Topic	Time
Welcome and Introductions	2:30 pm – 2:40 pm
Project Introduction » Purpose and Benefits of Hazard Mitigation Planning » Planning Process – Public Meetings » Walton County's Guiding Principles » Review of Current LMS Goals » Review of Current Hazards » Project Timeline/Next Steps	2:40 pm – 4:15 pm
Questions	4:15 pm – 4:25 pm
Final Comments/Adjourn	4:25 pm – 4:30 pm

Local Mitigation Strategy Update Project Kickoff

Walton County

January 23, 2020

Meeting Agenda

Today's Agenda

- Purpose and Benefits of Hazard Mitigation
- Planning Process
  - LMS Planning Meetings
  - Public Meetings
- Walton County's Guiding Principles
- Review of Current LMS Goals
- Review of Current Hazards
- Project Timeline
- Next steps
- Adjourn

Purpose and Benefits of Hazard Mitigation Planning

Purpose and Benefits of Hazard Mitigation Planning

- Required under the Disaster Mitigation Act of 2000
- Future federal funding is contingent on having an approved hazard mitigation plan (exception: if a jurisdiction is actively working on a plan)
- Guides post-disaster recovery
- Involves multiple stakeholders
- Promotes public participation
- Evaluates hazards and risks
- Builds support for mitigation activities
- Helps educate community officials and the public
- Develops more effective policies

Purpose and Benefits of Hazard Mitigation Planning

- Reduces vulnerability to future hazards
- Saves lives and property
- Facilitates pre- and post-disaster funding
- Speeds recovery
- Maintains economic stability

Purpose and Benefits of Hazard Mitigation Planning

- The Hazard Mitigation Grant Program (HMGP) provides grants to implement hazard mitigation measures following a Presidential Disaster Declaration
  - Authorized under Section 404 of the Stafford Act
  - Administered by FEMA
- HMGP funds provide a non-competitive funding stream that are intended to reduce or eliminate risk to all hazards by implementing effective long-term mitigation strategies, which includes funding for **planning projects**.
- Funding for non-planning projects through HMGP is predicated upon the jurisdiction's adoption of a federally approved Hazard Mitigation Plan.

Mitigation Planning Process

Mitigation Planning Process

- Form a Hazard Mitigation Planning Team
- Review/revise goals and objectives for the mitigation plan
- Review/revise hazards, data, and risk & vulnerability assessments
- Develop mitigation strategies
- Conduct outreach to the public (throughout the process)
- Incorporate stakeholder input
- Follow the plan adoption steps

Planning Process
Public Meetings

- Public Meetings are a requirement of the planning process. FEMA strongly encourages a “Whole Community” approach to the planning process.
- FEMA recommends 3-5 public meetings throughout the planning process.
- The Walton County LMS Update will be advertising and hosting 3 public meetings throughout this process.

Walton County Hazard Mitigation Guiding Principle

Guiding Principle

- The LMS Working Group, working with the County, Municipalities, and the public, developed guiding principles for hazard mitigation including reducing the loss of life and property, protecting public assets, ensuring building safety, and encouraging responsible growth.

Additional Guiding Principles

Principle 1 – Non- Structural Mitigation

- **Provide the communities with the programs and the administration to protect life and property**
  - Develop a stormwater management plan that will mitigate drainage problems.
  - Participate in the National Flood Insurance Program created by FEMA and enforce the base flood elevation requirements
  - Develop a coordination agreement on stormwater and flooding issues when there is a development contiguous to another municipality to provide some joint review
  - Provide funding sources to address the mitigation strategies that have been stated

Principle 1 – Non- Structural Mitigation

- Utilize the Working Group to develop new and improved mitigation programs, policies, and ordinances to mitigate losses and to protect the public health and to provide safety welfare for their citizens
- Develop and utilize an educational program for the citizens and for the employees of the county and municipalities

Principle 2 - Reduce Future Expenses

- **To reduce the future expenses of the County, the municipalities, and their citizens by providing standards that will control developments in areas that are susceptible to damage by flooding and/or high winds**
  - Construct public utilities to minimize or prevent flood damage and encourage the private utilities to follow a similar policy
  - Adopt building standards to limit damage to private property by flooding or wind
  - Develop a program that sets up a process to review repetitive loss property and flood prone lands for acquisition to mitigate the damage of the structures
  - Review critical facilities after an event to determine if additional protection is warranted

Principle 3 - Environmental Issues

- **Protect the environment and natural resources of the area by controlling development activities that would damage or destroy watersheds, wetlands, coastal resources, or other natural areas which serve as natural buffers and help prevent extensive infrastructure damage**
  - Adopt stormwater management plans that mitigate the additional runoff by development
  - Protect the potable water aquifer, even though there is no recharge area in the County, by protecting the wellheads to prevent the possibility of contamination getting to the water supply by the way of the well casing
  - Promote the natural functions of wetlands and require that an impact on wetlands due to development be appropriately addressed or mitigated in kind.

Principle 3 - Environmental Issues

- Protect watershed by restricting development that alters the capacity of the watershed
- Control hazardous materials to prevent the contamination of environmentally sensitive areas

Principle 4 - Land Use Mitigation

- **The County and Municipalities shall provide land use regulations to limit damage to developments**
  - Restrict development in hazard prone areas to eliminate the potential of damage to structures and natural resources and adopt building codes that limit damage caused by the local disasters such as wind loads and flood elevation
  - Regulate development in hazard prone areas to provide an orderly development, thereby protecting structures and natural resources
  - Develop a post-disaster redevelopment plan to allow an orderly procedure of rebuilding and reconstruction and to have an approved policy that will help mitigate future disaster damages

LMS Goals

Goals 1-3

- **Goal 1**
  - Provide the communities with the programs and the administration to protect life and property.
- **Goal 2**
  - Provide standards that will control developments in areas that are susceptible to damage by flooding and /or high winds
- **Goal 3**
  - Protect the environment and natural resources of the areas by controlling development activities that would damage or destroy watersheds, wetlands, coastal resources, and other natural areas which serve as natural buffers and prevent extensive infrastructure damage

Goals 4-5

- **Goal 4**
  - Provide land use regulations to limit damage to developments
- **Goal 5**
  - Provide post disaster planning and programs to mitigate loss of life and property

Building Resilient Infrastructure Communities (BRIC)

Building Resilient Infrastructure Communities (BRIC) Lifelines & Examples

Community Lifelines

lifelines@fema.dhs.gov

fema.gov/media-library/assets/documents/177222

Definition

A lifeline enables the continuous operation of **critical business** and **government functions** and is essential to **human health** and safety or **economic security.**

Purpose

- Root Cause Analysis
- Interdependencies
- Prioritization
- Ease of Communication

Assessing

- Status ⟶ What?
- Impact ⟶ So What?
- Actions ⟶ Now What?
- Limiting Factors ⟶ What's the Gap?

Stabilization

Occurs when basic lifeline services or capabilities are provided to survivors (may be temporary solutions requiring sustainment).

COMPONENTS of Lifelines

Safety and Security	Food, Water, Shelter	Health and Medical	Energy	Communications	Transportation	Hazardous Material
Law Enforcement/ Security	Food	Medical Care	Power	Infrastructure	Highway/Roadway	Facilities
Search and Rescue	Water	Patient Movement	Fuel	Alerts, Warnings, and Messages	Mass Transit	Non-Fixed Sites
Fire Services	Shelter	Public Health		911 and Dispatch	Railway	
Government Services	Agriculture	Fatality Management		Responder Communications	Aviation	
Community Safety		Medical Supply Chain		Financial Services	Maritime	

2015 LMS Identified Hazards

Natural Hazards in the 2015 LMS

- Earthquakes
- Tsunamis
- Coastal/Riverine Erosion
- Sinkholes
- Hurricanes and Coastal Storms
- Severe Thunderstorms and Tornadoes
- Floods
- Wildfires
- Dam Failure
- Drought and Heat Wave
- Winter Storms and Freezes

Project Timeline and Milestones

Timeline and Milestones

Project Milestone	Target Completion Date
Phase 1: LMS Project Initiation	
Project Kickoff Meeting/Planning Meeting #1	
Conduct project Kickoff Meeting/LMS Planning Meeting #1	January 23, 2020 1:30 pm – 3:30 pm
Prepare Minutes for LMS Planning Meeting #1	February 3, 2020
Prepare Minutes for Project Kickoff Meeting	February 3, 2020
Project Work Plan	
Approval of Project Work Plan	January 9, 2020
Progress reports and status calls	Ongoing

Timeline and Milestones

Phase 2: LMS Meetings and Public Meetings	
Conduct of LMS Meetings and Public Meetings	
Public Notice for Public Meeting #1	
Conduct of Public Meeting #1	January 23, 200 6:00 pm – 8:00 pm
Prepare Minutes for Public Meeting #1	February 3, 2020
Public Notice for Public Meeting #2	
Conduct of Public Meeting #2	March 10, 2020 6:00 pm – 8:00 pm
Prepare Minutes for Public Meeting #2	March 20, 2020
Public Notice for Public Meeting #3	
Conduct of Public Meeting #3	
Prepare Minutes for Public Meeting #3	
Conduct of LMS Planning Meeting #2	March 10, 2020 2:30 pm – 4:30 pm
Prepare Minutes for LMS Planning Meeting #2	March 20, 2020
Conduct of LMS Planning Meeting #3	
Prepare Minutes for LMS Planning Meeting #3	

Timelines and Milestones

Phase 3: Update of LMS Plan	
LMS Draft #1	
LMS Plan Final	
Phase 4: Updated Hazard Identification and Risk Assessment	
Draft HIRA	
Final HIRA	
Phase 5: Final LMS Plan Review	
Updated 2020 LMS Plan Draft #1	
Final 2020 LMS Plan	May 31, 2020
Phase 6: Gain Approval for the Walton County LMS Plan from FDEM	
Gain Approval from FDEM	July 1, 2020

Next Steps

Next Steps

- Initiate data collection
- Conduct public meeting #1 (January 23 from 6:00 pm – 8:00 pm)
- Begin update of Hazard Identification and Profiles
- Begin update of risk assessment

Proposed Meeting Dates

Kickoff Meeting (Planning Meeting #1)	January 23, 2020
Public Meeting #1	January 23, 2020
Planning Meeting #2	March 10, 2020
Public Meeting #2	March 10, 2020
Planning Meeting #3	
Public Meeting #3	

LMS Update Project Contact List

Name	Contact Information
Jeff Goldberg	jeff@waltoncounty.org 850-892-8530 (O) 850-307-4121 (M)
Kelly Schlutz	planningdirector@defuniaksprings.net 850-892-8571
Donna Free	donna@waltoncountyem.org 850-892-8065
Lisa Danner	lisa.danner@tetratech.com 828-773-4724 (M) 423-727-9058 (O)
Melissa Schloss	melissa.Schloss@tetratech.com 850-536-8152

Walton County, FL

1/23/2020 LMS Kick Off Meeting Notes

Time: 1:40pm – 3:00pm CST

Welcome and Introductions

Lisa Danner welcomed attendees, reviewed the agenda and everyone introduced themselves.

Project Introduction

Purpose and Benefits of Hazard Mitigation Planning

Lisa reviewed the meeting PowerPoint and discussed the requirement and purpose for the Local Mitigation Strategy (LMS) and its role in receiving FEMA Hazard Mitigation Assistance (HMA) grant funding including:

- Pre-Disaster Mitigation (PDM)
- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)

Planning Process – Public Meetings

Lisa explained to the attendees they are the LMS Working Group (LMS-WG) who will be reviewing and providing input for the 2020 LMS. She also explained the LMS-WG is responsible for:

- Review/revise goals and objectives
- Review/revise hazards, data and risk & vulnerability assessment sections
- Develop mitigation strategies and provide status on previous actions
- Conduct public outreach
- Incorporate stakeholder input
- Follow the Plan adoption steps upon receiving APA from FDEM

Lisa reminded the LMS-WG they will hold 3-5 public meetings throughout the update process and the first public meeting is scheduled to be held this evening (1/23/2020) at the Freeport Board Room beginning at 6:00 pm (cst).

Lisa and Jeff Goldberg reviewed the Guiding Principles (1-4) and LMS Goals (1-5). FEMA's new Building Resilient Infrastructure Communities (BRIC) handout was reviewed for possible incorporation into the principles/goals and objectives.

Review of Current Hazards

Lisa reviewed the current hazards identified in the 2015 LMS:

- Earthquakes
- Tsunamis
- Coastal / Riverine Erosion
- Sinkholes
- Hurricanes and Coastal Storms

- Severe Thunderstorms and Tornadoes
- Floods
- Wildfires
- Dam Failure
- Drought and Heat Wave
- Winter Storms and Freezes

Jeff provided an additional list for review and possible inclusion:

Natural

- Severe Weather
    - Hurricane
    - Tornadoes
- Sinkholes
- Agricultural Pests
- Flooding
- Urban/Wildfire
- Disease Outbreak
- Temperature Extremes

Technological

- Transportation
    - Air
    - Rail
    - Highway
- HazMat

Human Caused

- Terrorism
    - CBRNE
    - Cyber
- Workplace / School Violence

Project Timeline and Next Steps

Lisa presented the project timeline and milestones, as well as project next steps. Next steps will be for Tetra Tech to review each section of the 2015 LMS Plan and provide each jurisdiction their respective sections to update, including hazard event history and project status.

The next meeting of the LMS-WG will be March 10, 2020 and the Public Meeting #2 will be held on March 10, 2020 at a location to be determined.

Walton County Local Mitigation Strategy Update Project

Kickoff Meeting
January 23, 2020
Sign-In Sheet

Name	Agency/Organization	Email	Phone	Initials
LOUIS SVEHLA	WCBCC	svehlous@co.walton.fl.us		
MAC MCLEARY	FDEM	MAC.MCLEARY@EM.NFER		
Kristie SEIGLER	City of DFS	SEIKristie@definitesprings.net		
Jeff Goldberg	WCEM			
Judy Williams	City of Paxton	jwilliams@paxtonfl.net		
Kevin Laird	BCC	lairkevin@co.walton.fl.us		

Name	Agency/Organization	Email	Phone	Initials
Kelly SCHULTZ	City of DeFuniak Springs	planningdirector@defuniaksprings.net	850-830-53690	KS
Mike Perkins	360 Blue Properties	mike@360blue.com	850-419-6945	MP
Melinda Gates	Walton County	gatmelinda@co.walton.fl.us	(850)892-8108	mg
Latitia Hughes Neal	City of Freeport	planningdir@freeportflorida.gov	850-835-2340	LH
Heather Christman	County Atty Off	chrheather@co.walton.fl.us	850-833-8434	[illegible]
Lisa Danner	TT	lisa.danner@tetratech.com	423-727-9058 828-773-4724	LD
Melissa Schloss	Tetratech	melissa.schloss@tetratech.com	8505368152	MS

Walton County Public Meeting 1 Notification

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January 13 ·

PUBLIC NOTICE

Walton County Emergency Management Seeks Input on Hazard Reduction

The Walton County Department of Emergency Management is engaged and committed to ensuring the safety and welfare of over 68,000 people living within their county. The public is invited to help plan ways to mitigate the effects of natural, technological and human caused hazards in the Walton County area.

The first of three public meetings will be held at 6 p.m. on Thursday, January 23, 2020 at the Freeport Annex Board Room located at 842 State Highway 20 East Freeport, FL. This public meeting will offer an overview of the local mitigation strategy planning process and give the public an opportunity to offer recommendations.

"This will be a multi-jurisdictional plan to identify local hazards, assess the risks and plan ways to reduce loss of life and property damage in emergency situations," said Emergency Management Director Jeff Goldberg. "We welcome any and all input from our residents to help keep everyone safe."

For more information, questions or media interview requests, please contact Louis Svehla, Walton County Public Information Officer at (850) 333-6404.

About Walton County Emergency Management
Walton County Emergency Management provides emergency management services for the residents, businesses, and visitors of Walton County and is considered a leader in the Florida emergency management community. Their mission is to prevent, mitigate, prepare, respond, and recover from all hazards emergencies and disasters using a whole community approach.

EMERGENCY MANAGEMENT
WALTON COUNTY

4.8 **4.8 out of 5** · Based on the opinion of 60 people

ABOUT WALTON COUNTY EMERGENCY MANAGEMENT

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WALTON COUNTY

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###

75 South Davis Lane DeFuniak Springs, FL 32435
(850) 892-8065

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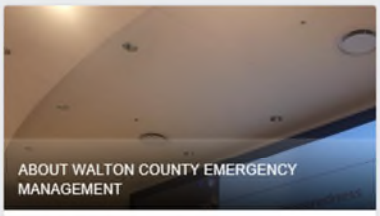

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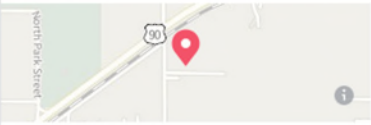


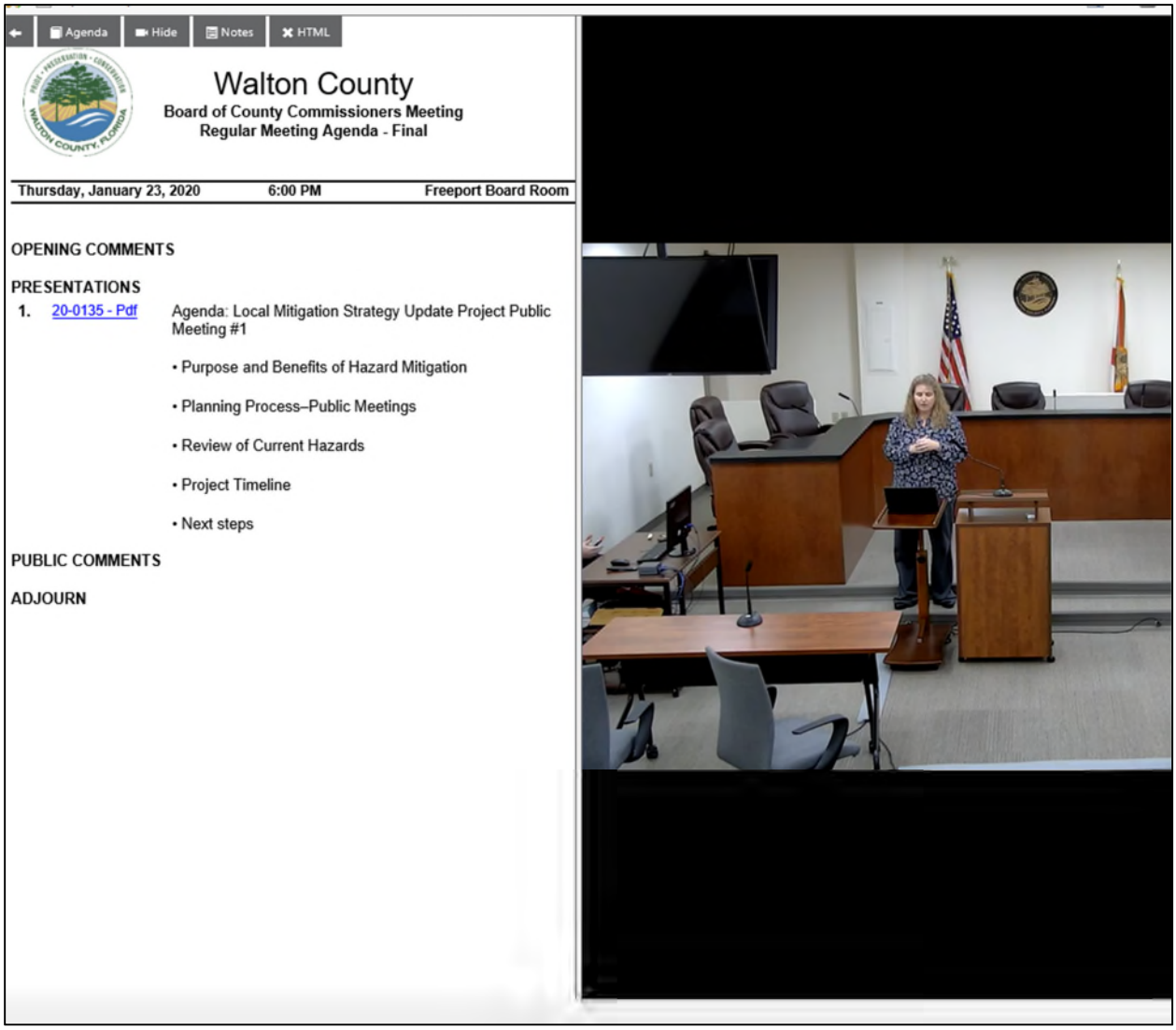
Walton County
Local Mitigation Strategy Update Project
Public Meeting
AGENDA

January 23, 2020
6:00 pm

Freeport Board Room

Topic
Welcome and Introductions
Project Introduction » Purpose and Benefits of Hazard Mitigation Planning » Planning Process – Public Meetings » Review of Current Hazards » Project Timeline/Next Steps
Questions
Final Comments/Adjourn

January 23, 2020 Walton County Public Meeting Screenshot of Video



Agenda | Hide | Notes | HTML

Walton County

Board of County Commissioners Meeting
Regular Meeting Agenda - Final

Thursday, January 23, 2020 6:00 PM Freeport Board Room

OPENING COMMENTS

PRESENTATIONS

1. 20-0135 - Pdf Agenda: Local Mitigation Strategy Update Project Public Meeting #1

- Purpose and Benefits of Hazard Mitigation
- Planning Process–Public Meetings
- Review of Current Hazards
- Project Timeline
- Next steps

PUBLIC COMMENTS

ADJOURN

Local Mitigation Strategy Update Project Public Meeting #1

Walton County

January 23, 2020

Meeting Agenda

Today's Agenda

- Purpose and Benefits of Hazard Mitigation
- Planning Process
  - Public Meetings
- Review of Current Hazards
- Project Timeline
- Next steps
- Adjourn

Purpose and Benefits of Hazard Mitigation Planning

Purpose and Benefits of Hazard Mitigation Planning

- Required under the Disaster Mitigation Act of 2000
- Future federal funding is contingent on having an approved hazard mitigation plan (exception: if a jurisdiction is actively working on a plan)
- Guides post-disaster recovery
- Involves multiple stakeholders
- Promotes public participation
- Evaluates hazards and risks
- Builds support for mitigation activities
- Helps educate community officials and the public
- Develops more effective policies

Purpose and Benefits of Hazard Mitigation Planning

- Reduces vulnerability to future hazards
- Saves lives and property
- Facilitates pre- and post-disaster funding
- Speeds recovery
- Maintains economic stability

Purpose and Benefits of Hazard Mitigation Planning

- The Hazard Mitigation Grant Program (HMGP) provides grants to implement hazard mitigation measures following a Presidential Disaster Declaration
  - Authorized under Section 404 of the Stafford Act
  - Administered by FEMA
- HMGP funds provide a non-competitive funding stream that are intended to reduce or eliminate risk to all hazards by implementing effective long-term mitigation strategies, which includes funding for **planning projects**.
- Funding for non-planning projects through HMGP is predicated upon the jurisdiction's adoption of a federally approved Hazard Mitigation Plan.

Mitigation Planning Process

Mitigation Planning Process

- Form a Hazard Mitigation Planning Team
- Review/revise goals and objectives for the mitigation plan
- Review/revise hazards, data, and risk & vulnerability assessments
- Develop mitigation strategies
- Conduct outreach to the public (throughout the process)
- Incorporate stakeholder input
- Follow the plan adoption steps

Planning Process
Public Meetings

- Public Meetings are a requirement of the planning process. FEMA strongly encourages a “Whole Community” approach to the planning process.
- FEMA recommends 3-5 public meetings throughout the planning process.
- The Walton County LMS Update will be advertising and hosting 3 public meetings throughout this process.

2015 LMS Plan

Citizens can go to the following website and/or location to review/obtain a copy of the current 2015 Local Mitigation Strategy Plan document.

2015 LMS Identified Hazards

Natural Hazards in the 2015 LMS

- Earthquakes
- Tsunamis
- Coastal/Riverine Erosion
- Sinkholes
- Hurricanes and Coastal Storms
- Severe Thunderstorms and Tornadoes
- Floods
- Wildfires
- Dam Failure
- Drought and Heat Wave
- Winter Storms and Freezes

Project Timeline and Milestones

Timeline and Milestones

Project Milestone	Target Completion Date
Phase 1: LMS Project Initiation	
Project Kickoff Meeting/Planning Meeting #1	
Conduct project Kickoff Meeting/LMS Planning Meeting #1	January 23, 2020 1:30 pm – 3:30 pm
Prepare Minutes for LMS Planning Meeting #1	February 3, 2020
Prepare Minutes for Project Kickoff Meeting	February 3, 2020
Project Work Plan	
Approval of Project Work Plan	
Progress reports and status calls	Ongoing

Timeline and Milestones

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Public Notice for Public Meeting #3	
Conduct of Public Meeting #3	
Prepare Minutes for Public Meeting #3	
Conduct of LMS Planning Meeting #2	
Prepare Minutes for LMS Planning Meeting #2	
Conduct of LMS Planning Meeting #3	
Prepare Minutes for LMS Planning Meeting #3	

Timelines and Milestones

Phase 3: Update of LMS Plan	
LMS Draft #1	
LMS Plan Final	
Phase 4: Updated Hazard Identification and Risk Assessment	
Draft HIRA	
Final HIRA	
Phase 5: Final LMS Plan Review	
Updated 2020 LMA Plan Draft #1	
Final 2020 LMS Plan	May 31, 2020
Phase 6: Gain Approval for the Walton County LMS Plan from FDEM	
Gain Approval from FDEM	July 1, 2020

Next Steps

Next Steps

- Initiate data collection
- Conduct public meeting #1 (January 23 from 6:00 pm – 8:00 pm)
- Begin update of Hazard Identification and Profiles
- Begin update of risk assessment

Proposed Meeting Dates

Kickoff Meeting (Planning Meeting #1)	January 23, 2020	
Public Meeting #1	January 23, 2020	
Planning Meeting #2		
Public Meeting #2		
Planning Meeting #3		
Public Meeting #3		

LMS Update Project Contact List

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Jeff Goldberg	jeff@waltoncounty.org 850-892-8530 (O) 850-307-4121 (M)
Kelly Schlutz	planningdirector@defuniaksprings.net
Donna Free	donna@waltoncountyem.org 850-892-8065
Lisa Danner	lisa.danner@tetratech.com 828-773-4724 (M) 423-727-9058 (O)
Melissa Schloss	melissa.Schloss@tetratech.com 850-536-8152

Walton County, FL

1/23/2020 LMS Public Meeting #1 Notes

Time: 6:00 pm (cst)

Welcome and Introductions

There were no attendees for the public meeting #1, however, the presentation was recorded by Walton County Public Information and will be uploaded to the Walton County public information site for the public to go in and watch at their leisure.

The public meeting #2 of the LMS 2015 Update Project will be held on March 17, 2020 at a location to be determined.

Walton County
Local Mitigation Strategy Update Project
Working Group Meeting #2
AGENDA

March 17, 2020
2:30 pm – 4:30 pm

Walton County EOC
75 South Davis Lane DeFuniak Springs, FL 32435

Topic	Time
Welcome and Introductions	2:30 pm – 2:40 pm
Review and finalize hazard list	2:40 pm – 2:45 pm
Review and finalize goals and objectives	2:45 pm – 3:15 pm
Discuss data collection worksheets	3:15 pm – 3:45 pm
Update on hazard and risk data » Update on natural hazards data » Update on Walton-specific technological & human-caused hazard history » Annex Worksheets due April 10, 2020	3:45 pm – 4:00 pm
Discuss public survey and encourage dissemination https://www.surveymonkey.com/r/WaltonCitizenSurvey	4:00 pm – 4:15 pm
Questions	4:15 pm – 4:25 pm
Final Comments/Adjourn	4:25 pm – 4:30 pm

Walton County 2020 LMS
Hazards of Concern

Natural

- Erosion
  - Coastal
  - Riverine
- Geological
  - Earthquake
  - Sinkholes
- Severe weather
  - Thunderstorms
  - Tropical Cyclones
    - Tropical Storms
    - Hurricanes
  - Tornadoes
  - Extreme Temps
    - Cold
    - Heat
- Flood
  - Tsunami
  - Storm surge flooding
  - Areal / Riverine
- Wildfire / Urban fire
- Winter Storm
- Dam Failure
- Drought
- Disease Outbreak
  - Epidemic/Pandemic
  - Animal/Plant
    - Agricultural Pests

Technological

- Transportation Incident
  - Air
  - Rail
  - Highway
- HazMat Incident
  - Fixed Facility
  - Transportation
- Utility Outages

Human-Caused

- Terrorism
  - Chemical
  - Biological
  - Radiological
  - Nuclear
  - Explosive
  - Cyber
- Workplace / School Violence

State of Florida and Walton County Goals

According to CFR 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."

Goals are general guidelines that explain what is to be achieved. They are usually broad, long-term, policy-type statements and represent global visions. Goals help define the benefits that the plan is trying to achieve. The success of the plan, once implemented, should be measured by the degree to which its goals have been met. Goals should be compatible with the needs and goals expressed in other available community planning documents and the Florida HMP.

State of Florida 2018 Goals	Walton County 2015 Goals
Goal 1: Implement an effective comprehensive statewide hazard mitigation plan.	Provide the communities with the programs and the administration to protect life and property and maintain critical operations. 1. Expand warning systems and local warning capabilities between the county and cities. 2. Enhance education strategies to improve the dissemination of information to the public regarding hazards, including the steps that can be taken to reduce their impact. 3. Support continuity of operations pre-, during, and post- hazard events including the support of community lifelines.
Goal 2: Support local and regional mitigation strategies.	To reduce the future expenses of the County, the municipalities, and their citizens by providing standards that will control developments in areas susceptible to damage by flooding and/or high winds. 1. Improve the capabilities of local government officials to reduce or eliminate hazards that cause loss of life, inflict injuries, cause property damage and to improve the protection of natural resources. 2. Investigate and implement a range of structural projects that will reduce the effects of natural hazards on public and private property throughout the county. 3.
Goal 3: Increase public and private sector awareness and support for hazard mitigation in Florida.	Protect the environment and natural resources of the area by controlling development activities that would damage or destroy watersheds, wetlands, coastal resources, or other natural areas which serve as natural buffers and help prevent extensive infrastructure damage. 1. Implement property protection measures to reduce the effects of natural hazards, including measures that reduce or eliminate repetitive loss occurrences.

	2. Investigate and implement a range of nature-based solutions and utilize and enhance natural resources and their ability to reduce the impacts from natural hazards.
Goal 4: Support mitigation initiatives and policies that protect the state's cultural, economic, and natural resources.	The County and municipalities shall provide land use regulations to limit damage to developments. 1. Work to improve and coordinate existing local plans, codes and regulations to reduce the impacts of natural hazards.

Additional Goal Examples:

2. Improve and coordinate data collection efforts to fully maximize the intent of the efforts and to improve the mitigation capabilities of the county and cities.

Walton County Sample LMS Objectives

Objectives are short-term aims which, when combined, form a strategy or course of action to meet a goal. Unlike goals, objectives are specific and measurable.

Property Protection

1. Modify structures, as necessary, to meet life safety standards.
2. Encourage the incorporation of mitigation measures into repairs, major alterations, new development, and redevelopment practices, especially in areas subject to substantial hazard risk.
3. Manage development in geologically hazardous areas and floodplains to protect life and property.
4. Promote disaster resistant development.
5. Identify projects that simultaneously reduce risk while increasing operational area resilience and sustainability.
6. Promote enforcement of relevant state regulations and local ordinances that significantly reduce life loss and injuries.
7. Encourage new development to occur in locations avoiding or minimizing exposure to hazards and enhance design requirements to improve resiliency in future disasters.
8. Encourage life and property protection measures for all communities and structures located in hazard areas.
9. Provide incentives for development and land use techniques that reduce risks.
10. Reduce repetitive property losses by updating land use, design, and construction policies.
11. Reduce losses on properties that have been repeatedly damaged.
12. Research, develop, and promote adoption of cost-effective building and development laws, regulations, and ordinances.
13. Strengthen local building code enforcement.
14. Retrofit, purchase, or relocate structures in high hazard areas, especially those known to be repetitively damaged.

15. Use mandatory local general plan, zoning, and subdivision requirements to help establish resilient and sustainable communities. (State Objective)
16. Incorporate risk reduction considerations in new and updated infrastructure and development plans to reduce the impacts of natural hazards
17. Consider risk reduction in long-term planning.

Natural Resources

1. Review all hazard mitigation projects for compliance with applicable environmental laws.
2. Encourage hazard mitigation measures that promote and enhance natural processes and minimize adverse impacts on the ecosystem.
3. Encourage all state, regional and local hazard mitigation planning programs to protect the environment and promote implementation of sustainable mitigation actions.
4. Implement wildfire mitigation and watershed protection strategies through local, state, tribal, federal and private partnerships.
5. Promote and implement hazard mitigation plans and projects that are consistent with state, regional and local climate action and adaptation goals, policies, and programs.
6. Plan and develop according to a higher level through consideration of future conditions.
7. Coordinate state and local efforts to reduce greenhouse gas emissions and implement climate adaptation strategies through hazard mitigation plans and actions.
8. Consider climate change implications when selecting strategies for hazard risk reduction.
9. Protect watershed quality.
10. Maintain a maximum number of options for open space resources.
11. Protect rare, endangers, unusual, or educationally important natural resources.
12. Implement risk reduction actions that have minimal negative impacts on biological and other resources.
13. Give higher priority to hazard mitigation measures that can increase open space and meet targets for natural environment sustainability.
14. Control access and provide buffers to maximize resource protection where possible.
15. Balance new development with environmental quality.
16. Coordinate hazard mitigation planning with state and federal programs designed to minimize the release and movement of toxic and hazardous substances in the environment.

Planning/Integration/Coordination

1. Encourage integrated with local general plan safety elements, local coastal plans, facilities master plans, and other local plan initiatives.
2. Establish a partnership among all levels of government and the business community to improve and implement methods to protect property.
3. Reduce risks that may impact critical business operations.
4. Continually build linkages among hazard mitigation, disaster preparedness, and recovery programs within the public and private sectors.
5. Actively promote effective coordination of regional and local hazard mitigation planning and action among state agencies, cities, counties, special districts, tribal organizations, councils of governments, metropolitan planning organizations, and regional transportation to create resilient and sustainable communities.

6. Establish and maintain partnerships among all levels of government, private sector, community groups, and institutions of higher learning that improve and implement methods to protect life and property.
7. Improve understanding of the locations, potential impacts, and linkages among threats, hazards, vulnerability, and measures needed to protect life safety and health.
8. Develop and provide updated information about threats, hazards, vulnerabilities, and mitigation strategies to state, regional, and local agencies, as well as private sector groups.
9. Advance community resilience through preparation, adoption, and implementation of state, regional and local multi-hazard mitigation plans and projects.
10. Improve hazard information databases and maps and increase accessibility to those resources

Warning/Continuity of Operations

1. Improve systems that provide warning and emergency communications.
2. Support and encourage the implementation of alternative energy sources
3. Ensure continuity of operations of essential county government services

Education/Public Outreach

1. Improve the quality and effectiveness of local hazard mitigation planning through effective training and guidance that strengthens linkages between the local hazard mitigation plan, general plan safety elements, and other plans that can support or enhance mitigation efforts.
2. Promote and enhance outreach and education efforts by state, regional and local agencies with hazard mitigation plans and programs to actively encourage engagement of stakeholder groups such as homeowners, private sector businesses, and nonprofit community organizations.
3. Increase public awareness of risk.
4. Inform the public on the risk exposure to natural hazards and ways to increase the public's capability to prepare, respond, recover and mitigate the impacts of these events.
5. Promote dialogue between government representatives, private business, non-profit organizations, and the public regarding hazard mitigation.
6. Minimize impacts of hazard events to key employers.
7. Create financial and regulatory incentives to motivate stakeholders such as homeowners, private sector businesses, and nonprofit community organizations to mitigate hazards and risk.

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Questions? Please contact:

Brian Rutherford or Melissa Schloss

Brian - E-mail: brian.rutherford@tetratech.com
Melissa - E-mail: melissa.schloss@tetratech.com

Municipality/Tribe: _____

Who can provide information about events and losses: Emergency Management, Police, Fire, Department of Public Works (DPW), building inspector, municipal engineer. Refer to FEMA Project Worksheets (PWs), DPW records, police response records, etc.

In the table below, please identify events in which your community suffered significant damages/losses and describe these losses (e.g., flooded roads, road closures, DPW/Police overtime, debris management, opened shelter for two days, etc.). Please add other non-declared events that affected your community that are not listed.

Feel free to add additional sheets for other major events that impacted your community.

Dates of Event	Event Type (Disaster Declaration if applicable)	Walton County Designated Disaster?	Did your community suffer losses/costs from this event? Yes/No – (If "yes" please complete an Event Loss Summary Sheet, attached to this worksheet, for this event.)	Notes on damages within County

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020
UPDATE
Worksheet #1 – Events and Losses

Dates of Event	Event Type (Disaster Declaration if applicable)	Walton County Designated Disaster?	Did your community suffer losses/costs from this event? Yes/No – (If "yes" please complete an Event Loss Summary Sheet, attached to this worksheet, for this event.)	Notes on damages within County

Please identify any specific vulnerabilities that you are aware of in your community (e.g. floodprone areas or specific properties, critical facilities that lack backup power, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

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Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

Worksheet #1 – Events and Losses

Event and Loss Summary Sheet

Other Events (please create additional sheets as needed)

Event Date and Description (incl. DR# if applicable): _____

Life Safety (evacuation, sheltering, injuries, deaths):

Loss of Service (e.g. road closures, utility outages, commercial closures – include location, time of closure and/or number of affected):

Infrastructure Damage (e.g. roads, bridges, culverts, treatment facilities, lift stations, etc.):

Facility/Structural Damage – Public (e.g. police, school, etc.):

Facility/Structural Damage – Private (e.g. residential, commercial property, etc.):

Public Assistance Requested (Yes/No – if "yes" please provide any supporting docs):

Other Loss Information (e.g. emergency protective services such as police overtime, costs for cleanup and debris removal, etc.):

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

Municipality/Tribe: _____

1. **Planning and Regulatory Capability:** Please indicate whether the following planning or regulatory tools and programs are currently in place or under development for your jurisdiction by placing an "X" in the appropriate box, followed by the date of adoption/update. Then, for each particular item in place, identify the department or agency responsible for its implementation. In addition, indicate the code chapter, and name of plan including any explanation of authority in the right-most column.

Who can assist with completing this table: Municipal Planner, Clerk, Code Official. Refer to your codes and ordinances, Master Plan.

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan				
Capital Improvements Plan				
Floodplain Management / Basin Plan				
Stormwater Management Plan				
Open Space Plan				
Stream Corridor Management Plan				
Watershed Management or Protection Plan				
Economic Development Plan				
Comprehensive Emergency Management Plan				
Emergency Operations Plan				
Post-Disaster Recovery Plan				
Transportation Plan				
Strategic Recovery Planning Report				
Other Plans:				
Regulatory Capability				
Building Code				
Zoning Ordinance				
Subdivision Ordinance				
NFIP Flood Damage Prevention Ordinance				
NFIP: Cumulative Substantial Damages				
NFIP: Freeboard				

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #2 – Municipal/Tribal Capability Assessment

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Growth Management Ordinances				
Site Plan Review Requirements				
Stormwater Management Ordinance				
Natural Hazard Ordinance				
Post-Disaster Recovery Ordinance				
Real Estate Disclosure Requirement				
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]				

2. **Administrative and Technical Capability:** Please indicate whether your jurisdiction maintains the following staff members within its current personnel resources by placing an "X" in the appropriate box. Then, if YES, please identify the department or agency they work under and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Planner, Code Official, Clerk, and Administrator.

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board		
Mitigation Planning Committee		
Environmental Board/Commission		
Open Space Board/Committee		
Economic Development Commission/Committee		
Maintenance Programs to Reduce Risk		
Mutual Aid Agreements		
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices		
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure		
Planners or engineers with an understanding of natural hazards		
NFIP Floodplain Administrator		
Surveyor(s)		
Personnel skilled or trained in GIS and/or HAZUS-MH applications		
Scientist familiar with natural hazards		
Emergency Manager		
Grant Writer(s)		
Staff with expertise or training in benefit/cost analysis		
Professionals trained in conducting damage assessments		

Worksheet #2 – Municipal/Tribal Capability Assessment

**If you participate in the NFIP, then you have a Floodplain Administrator.*

3. **Fiscal Capability:** Please indicate whether your jurisdiction has access to or is eligible to use the following local financial resources ***for hazard mitigation purposes*** (including as match funds for State of Federal mitigation grant funds). Then, identify the primary department or agency responsible for its administration or allocation and provide any other comments you may have in the space provided or with attachments.

Who can assist with completing this table: Administrator, CFO

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	
Capital Improvements Project Funding	
Authority to Levy Taxes for specific purposes	
User fees for water, sewer, gas or electric service	
Impact Fees for homebuyers or developers of new development/homes	
Stormwater Utility Fee	
Incur debt through general obligation bonds	
Incur debt through special tax bonds	
Incur debt through private activity bonds	
Withhold public expenditures in hazard-prone areas	
Other Federal or State Funding Programs	
Open Space Acquisition Funding Programs	
Other	

4. **Education/Outreach and Community Classifications:** Education and outreach refers to public outreach programs and methods that the municipality has in place that may be used to implement mitigation activities and further communicate risk to residents. The classifications listed below relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance.

Who can assist with completing this table: Code Official, Floodplain Administrator, EM Director

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)			
Building Code Effectiveness Grading Schedule (BCEGS)			
Public Protection (ISO Fire Protection Classes 1 to 10)			
Storm Ready			
Firewise			
Disaster/Safety Programs in/for Schools			
Organizations with Mitigation Focus (advocacy group, non-government)			
Public Education Program/Outreach (through website, social media)			
Public-Private Partnerships			

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at http://www.isomitigation.com/ppc/0000/ppc0001.html
- The National Weather Service Storm Ready website at http://www.weather.gov/stormready/howto.htm
- The National Firewise Communities website at http://firewise.org/

5. **Self-Assessment of Capability:** Please provide an approximate measure of your jurisdiction's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities. Using the following table, please place an "**X**" in the box marking the most appropriate degree of capability (Limited, Moderate or High) based upon best available information and the responses provided in Sections 1-4 of this survey.

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, please indicate your obstacles?)*	Moderate	High
Planning and Regulatory Capability			
Administrative and Technical Capability			
Fiscal Capability			
Community Political Capability			
Community Resiliency Capability			
Capability to Integrate Mitigation into Municipal/Tribal Processes and Activities.			

**Example obstacles:*

- *Limited staff; Few people have numerous roles/responsibilities*
- *Not aware of FEMA mitigation funding sources*

WALTON COUNTY HAZARD MITIGATION PLAN UPDATE
Worksheet #3 – NFIP Floodplain Administrator Questionnaire

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: _____

NFIP Floodplain Administrator Name/Title: _____

Flood Vulnerability Summary

1. Does the community maintain lists/inventories of properties that have been flood damaged? If so, does this inventory identify property owners who are interested in mitigation (e.g. elevation, acquisition)?

2. Characterize/quantify the number of structures damaged during past events. If possible, can you provide a table of these structures indicating the number of residential / commercial / industrial?

3. Do you make Substantial Damage estimates?

4. How many are interested in mitigation (elevation or acquisition), and how many are currently in the process of mitigation?

5. What is the funding source(s) for those being mitigated (e.g. property owner, flood insurance and ICC, grant funding)?

Resources

6. Are you the sole person assuming the responsibilities of floodplain administration, or do you have other staff or use contract staff if needed?

7. Provide an explanation of the NFIP administration services and functions you and your department provide (e.g. permit review, inspections, damage assessments, and record-keeping, GIS, education and outreach).

8. Do you provide any education or outreach to the community regarding flood hazards/risk, and flood risk reduction through NFIP insurance, mitigation, etc.? Please describe.

9. Are there any barriers to running an effective floodplain management program in your community?

10. Do you feel that you are adequately supported and trained to fulfill your responsibilities as the floodplain administrator?

11. Would you consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators?

Compliance History

12. Is the community in good-standing in the NFIP? If not, what are the outstanding compliance issues?

13. When was the most recent compliance audit [e.g. Community Assistance Visit (CAV)]?

Regulatory

14. Does your floodplain management regulations/ordinances exceed the FEMA and State minimum requirements?

15. Are there other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?

16. Has the community considered joining (or rejoining) the Community Rating System (CRS) program to reduce flood insurance premiums for their insured? If so, would your community attend a CRS seminar if offered locally?

WALTON COUNTY LOCAL MITIGATION STRATEGY 2020 UPDATE
Worksheet #4 – Community Action Review

Questions?
Brian Rutherford or Melissa Schloss
Brian - E-mail: brian.rutherford@tetratech.com
Melissa – E-mail: melissa.schloss@tetratech.com

Municipality/Tribe _____

Who can provide you information about past mitigation actions: See the 'Responsible Party' column in the table below which identifies who put this action in the 2015 Local Mitigation Strategy (LMS) (e.g., DPW, Engineer, Code Official, Planner, EM Director).

Please use the following table to indicate progress and next steps on your community's mitigation strategy identified in the 2015 LMS. Please be as detailed as possible.

2015 Mitigation Action	**Responsible Party**	**Status** (In progress, No progress, Complete)	**Describe Status** **1. Please describe what was accomplished and indicate % complete.** **2. If there was no progress, indicate what obstacles/delays encountered?** **3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?**	**Next Step** (Include in 2020 LMS? or Discontinue)	**Describe Next Step** **1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate).** **2. If discontinue, explain why.**
Example: *Elevate Main Street Bridge*	*Department of Public Works*	*No Progress*	*1. 0% complete* *2. Budget and personnel constraints have restricted this action from moving forward* *3. No funding secured*	*Include in 2020 LMS*	*1. Elevate Main Street Bridge above the base flood elevation.* *2. (If you chose 'Discontinue,' here is an example: The Town does not have the authority to retrofit this bridge; it is owned by the State.*

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

2015 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status 1. Please describe what was accomplished and indicate % complete. 2. If there was no progress, indicate what obstacles/delays encountered? 3. If there was progress, how is/was the action being funded (e.g., FEMA HMGP grant, local budget)?	Next Step (Include in 2020 LMS? or Discontinue)	Describe Next Step 1. If including action in the 2020 LMS, revise/reword to be more specific (as appropriate). 2. If discontinue, explain why.

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: _____

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. We would like to gather an understanding of your community's progress in plan integration, as well as identify potential integration opportunities that your community may pursue in the future.

Who can assist with completing this table: The HMP main point of contact should discuss with the Engineer, Clerk, Mayor/Administrator, Planner, Chief Financial Officer, Building Code Official, NFIP Floodplain Administrator

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Planning	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments (ZBA)	Does your community have a Master/Comprehensive Plan (land-use plan), or are you currently working on an update of your Master/Comprehensive Plan? If so, does it include, or are you considering, areas of natural hazard risk (e.g. flood-prone areas, steep slopes)? Does your Master/Comprehensive plan refer to the local or Countywide Local Mitigation Strategy?
Planner (staff or contract); Stormwater Manager	Do you have a formal Stormwater Management Plan? If so, does this plan specify projects/actions/initiaives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding?
Planner (staff or contract)	Does your community have any of the of the following plans, and if so, please specify if and how they help to manage natural hazard risk? • Re-Development Plan • Growth Plan • Economic Development Plan • Open Space Plan • Watershed or Stream Corridor Management Plan • Local Waterfront Revitalization Plan

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
All departments	Does your community or Department have a Continuity of Operations/Continuity of Government (COOP/COG) plan(s) that will serve to protect your local government and operations from natural hazard disruptions?
Emergency Management Coordinator	Does your community have a Comprehensive Emergency Management Plan? Does it refer to the LMS?
Planner (staff or contract); OEM	Does your community have a Post-Disaster Recovery Plan, or Strategic Recovery Plan? Does it refer to the LMS? Does it include specific mitigation projects and activities?
Regulatory	
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	Does your zoning and subdivision regulations, and/or site plan review process, consider natural hazard risk (e.g. the presence of floodplains, steep slopes, etc.)?
Planning Board; Zoning Board of Adjustments; Planner (staff or contract)	What data, information, tools and resources is your Planning Board and/or ZBA provided to guide their decisions with respect to natural hazard risk mangement, and what other resources would assist this process?
Planning Board; Zoning Board of Adjustments: Planner (staff or contract	Does your municipal zoning and subdivision regulations, and/or site plan review process, require developers to take additional actions to mitigate natural hazard risk (e.g. undergrounding utilities, stormwater detention, creating easements in areas/zones of hazard risk)?
NFIP Floodplain Administrator (specified in your Flood Damage Prevention Ordinance); Building Code Official	Does your NFIP Flood Damage Protection Ordinance include provisions that exceed the minimum Federal and State NFIP regulatory requirements (e.g. increased freeboard, cumulative substantial damages)?
Administrative / Technical Resources and Programs	
Planner (staff or contract); Planning Board; Zoning Board of Adjustments	Do you have a planner or contract planning firm, and what are their functions with respect to natural hazard risk reduction?
Planning Board; Zoning Board of Adjustments	Do you have a Planning Board and/or Zoning Board of Adjustments, and what are their functions with respect to managing natural hazard risk and compliance with related natural hazard regulations (Federal, State and local ordinances) and plans (Master/Comprehensive Plan, Stormwater Management Plans, Local Waterfront Revitalization Plans)?
Mayor, Administrator, Clerk, Council/Committee	Do you have any other Boards or Committees that include functions with respect to managing natural hazard risk?

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #5 - Capability Assessment and Plan Integration

Applicable Department/Agency	Plan, Program, Mechanism, etc.
Stormwater Manager, Mayor, Administrator, Council/Committee	Who performs the Stormwater Management functions in your community (name and position, or contractor)?
Mayor, Administrator, Clerk, Council/Committee	Who performs the NFIP Floodplain Management functions in your community (name and position)?
Engineering, Building Department/Code Officials	Do you have staff, or do you contract with firms, that have experience with developing Benefit-Cost Analysis?
Building Department/Code Officials	Do you have staff, or do you contract with firms, who can perform Substantial Damage Estimates?
Mayor, Administrator, Clerk, Chief Financial Officer	Do you have staff, or do you contract with firms, that have experience in preparing grant applications for mitigation projects?
All Departments	Does your staff get training or continuing professional education which supports natural hazard risk reduction?
All Departments	Can you identify areas that your staff would benefit from additional training and/or certification with respect to natural hazard risk management?
Mayor, Administrator, Clerk, DPW	Do you have other hazard mangement programs in place such as vegetation management?
All Departments	Do any of your staff have job descriptions that specifically include identifying and/or implementing mitigation projects/actions or other efforts to reduce natural hazard risk?
All Departments	Do any of your staff or Departments participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities? (e.g. building code officials groups, LEPCs, flood task forces, etc.)?
Public Education and Outreach	
Mayor, Administrator, Clerk	Please describe any public outreach mechanisms/programs you have in place to inform citizens on natural hazards (e.g. safe use of generators, emergency preparedness, flood hazard information).
Mayor, Administrator, Clerk	Can you identify any enhancements that would promote further public outreach and education in your community with respect to natural hazard risk management?
Fiscal Resources	
Mayor, Council/Committee, Administrator, CFO	Does your municipal/operating budget include line items for mitigation projects/activities?
Mayor, Council/Committee, Administrator, CFO	Does your community have a Capital Improvements Budget, and does it include budget for mitigation-related projects (e.g. improved stormwater management/drainage, hardening of critical facilities and infrastructure)?
Mayor, Council/Committee, Administrator, CFO	Has your community pursued or been awarded grant funds for mitigation-related projects, and if so, for each please identify the project, funding source, amount of funding, and if local matches were required and how they were met?
Mayor, Council/Committee, Administrator, CFO	Does your community have any other mechanisms to fiscally support hazard mitigation projects?

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE
Worksheet #6 – Potential New Development

Questions? Please contact:
Brian Rutherford or Melissa Schloss
Brian - Email: brian.rutherford@tetratech.com
Melissa - Email: melissa.schloss@tetratech.com

Municipality/Tribe: _____

Please indicate any recent development within your community from 2015 to present. Additionally, please indicate known or anticipated major residential and/or commercial development and major infrastructure development that can be identified for the next five (5) years in your community.

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2015 to Present					

Known or Anticipated Development in the Next Five (5) Years					

Walton County, FL

March 17, 2020 LMS Meeting Summary

Time: 2:30pm – 3:30pm CST

Attendees:

Carpenter, Mac	Walton County Planning
Gates, Melinda	Walton County Planning
Goldberg, Jeff	Walton County Emergency Management
Harrison, Megan	Walton Area Chamber of Commerce
Hughes, Latilda	Freeport Planning
Kilgore, Gabrielle	Walton Area Chamber of Commerce
Laird, Kevin	Walton County GIS
Perkins, Mike	360 Blue Properties
Schultz, Kelly	DeFuniak Springs Planning
Katie ___	Matrix Community Outreach Center
Rutherford, Brian	Tetra Tech
Schloss, Melissa	Tetra Tech
Siegler, Kristie	DeFuniak Springs Public Works

Welcome and Introductions

Brian Rutherford, Tetra Tech introduced himself as the new project manager for the 2020 LMS Update and welcomed attendees, reviewed the agenda and everyone introduced themselves.

Review and Finalize Hazard List

Brian presented the Hazards of Concern and asked for LMSWG feedback. The group decided to consolidate extreme temperature with Severe Storms and rename it Severe Weather.

The Group decided to keep Utility Outages as its own profile, as it can occur as a cascading hazard or can occur as a primary hazard.

The Group discussed what would be covered in the Agricultural Disruption hazard and decided to only include it if it is necessary as a secondary part of a natural hazard damage or USDA crop insurance usage surge.

Review and Finalize Goals and Objectives

Brian presented the Goals and Objectives handout and compared the 2018 FL SHMP goals to the 2015 Walton LMS goals. Tetra Tech will provide example goals and objectives along with the 2015 list of mitigation actions and distribute to the LMSWG for feedback and approval.

Data Collection Worksheets

Brian reviewed each of the five Annex worksheets required of each jurisdiction and noted they are due back to Tetra Tech on April 10, 2020. Jeff Goldberg noted he will ask the Tribe again if they are interested in participating as a jurisdiction.

Walton County, FL

March 17, 2020 LMS Meeting Summary

Update on Hazard and Risk Data

Melissa Schloss, Tetra Tech provided a Risk Assessment update and discussed the raw data provided by FDEM. Kevin Laird noted he is currently working on providing tables and figures for use in the Risk Assessment. The Group discussed previous dam failure events and possible leads to gather that info.

Public Survey and Dissemination

Brian noted that Melissa created the public survey for use on the county's social media and websites. Jeff Goldberg noted that the county and jurisdictional PIOs will review and upload it to their respective websites.

The meeting was adjourned at 3:30 p.m.

PUBLIC NOTICE

Walton County Emergency Management Seeks Input on Hazard Reduction

The Walton County Department of Emergency Management is engaged and committed to ensuring the safety and welfare of over 68,000 people living within their county. The public is invited to help plan ways to mitigate the effects of natural, technological and human caused hazards in the Walton County area.

The first of three public meetings will be held at 6 p.m. on Tuesday, March 10, 2020 at the South Walton Annex Board Room located at 31 Coastal Centre Blvd Santa Rosa Beach, FL. This public meeting will offer an overview of the local mitigation strategy planning process and give the public an opportunity to offer recommendations.

"This will be a multi-jurisdictional plan to identify local hazards, assess the risks and plan ways to reduce loss of life and property damage in emergency situations," said Emergency Management Director Jeff Goldberg. "We welcome any and all input from our residents to help keep everyone safe."

For more information, questions or media interview requests, please contact Louis Svehla, Walton County Public Information Officer at (850) 333-6404.

Walton County Emergency Management provides emergency management services for the residents, businesses, and visitors of Walton County and is considered a leader in the Florida emergency management community. Their mission is to prevent, mitigate, prepare, respond, and recover from all hazards emergencies and disasters using a whole community approach.

###

75 South Davis Lane DeFuniak Springs, FL 32435
(850) 892-8065

Walton County Public Meeting #2 Public Notice

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Walton County Emergency Management
March 9 at 1:58 PM ·

PUBLIC NOTICE

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EMERGENCY MANAGEMENT
WALTON COUNTY

PUBLIC NOTICE

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###

75 South Davis Lane
DeFuniak Springs, Florida 32435
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Walton County Local Mitigation Strategy Update Project
Public Meeting #2
AGENDA

March 17, 2020
6:00 pm

South Walton Annex, Board Room
31 Coastal Centre Blvd., Santa Rosa Beach, Florida

Topic
Welcome and Introductions
Project Update » Quick Review of Project Purpose » Hazards of Concern for 2020 Local Mitigation Strategy Update » Goals for 2020 Local Mitigation Strategy Update
Mitigation Actions for Homeowners
Public Survey https://www.surveymonkey.com/r/WaltonCitizenSurvey
Questions
Final Comments/Adjourn

EMERGENCY MANAGEMENT
WALTON COUNTY

LOCAL MITIGATION STRATEGY UPDATE

Public Meeting #2
March 17, 2020

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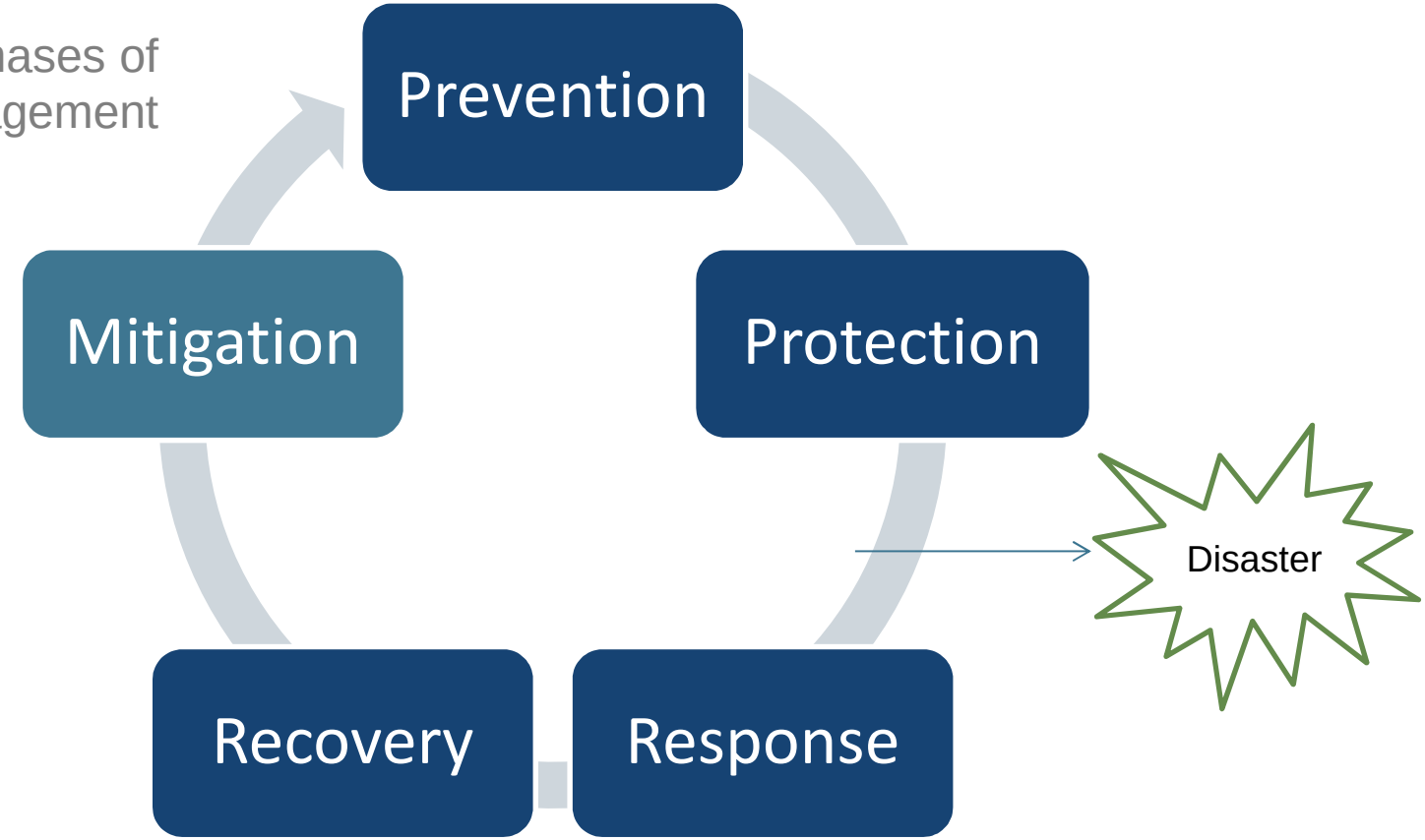
Meeting Purpose

- Quick Review of Project Purpose
- Hazards of Focus for the 2020 Local Mitigation Strategy Update
- Goals for the 2020 Local Mitigation Strategy Update
- Mitigation Actions for Homeowners
- Public Survey

What is Mitigation?

Five Phases of
Emergency Management



"Sustained action taken to reduce or eliminate long-term risk to life and property"

What is the Disaster Mitigation Act (DMA)?

Federal legislation that establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP)

"No Plan, No Money!"

Why Plan?

- Establish/maintain eligibility for grant funds
- Preparedness: pro-active vs. reactive
- Resiliency
- Key element in emergency management
- Can set the course for response and recovery to impacts from natural disasters
- Requires commitment and support from both elected officials and their constituents

What is Required in a DMA Plan?

According to the Code of Federal Regulations, Title 44, Section 201.6, an approved plan must:

- Engage the public through all phases of the plan's development
- Review and incorporate plans and programs that can support/enhance hazard mitigation
- Assess risk to natural hazards that impact a planning area
- Identify a plan maintenance strategy
- Identify and prioritize actions

Past Accomplishments in Mitigation Planning

- Expansion of US 331
- Development of a post-disaster recovery plan
- Installation of storm shutters on government buildings and other critical facilities
- Establishment of a special needs shelter
- Relocation of facilities out of flood prone areas
- Procurement of a rapid notification system
- Road improvements throughout the county
- Development of an emergency coordination plan

Accomplishments So Far

- A local mitigation strategy workgroup met on January 23rd and on March 17th.
- A public meeting was conducted on January 23rd.
- The team is working to:
  - Update hazard and risk data.
  - Update the status of past projects.
  - Collect other data to update the local mitigation strategy.

Natural Hazards of Concern

- Erosion
  - Coastal
  - Riverine
- Geological
  - Earthquake
  - Sinkholes
- Severe Weather
  - Thunderstorms
  - Tropical Cyclones
    - Tropical Storms
    - Hurricanes
  - Tornadoes
  - Extreme Temps
    - Cold
    - Heat
- Flood
  - Tsunami
  - Storm surge flooding
  - Areal / Riverine
- Wildfire / Urban fire
- Winter Storm
- Dam Failure
- Drought
- Disease Outbreak
- Epidemic/Pandemic
  - Animal/Plant
    - Agricultural Pests

Technological Hazards of Concern

- Transportation Incident
  - Air
  - Rail
  - Highway
- HazMat Incident
  - Fixed Facility
  - Transportation
- Utility Outages

Human-Caused Hazards of Concern

- Terrorism
  - Chemical
  - Biological
  - Radiological
  - Nuclear
  - Explosive
  - Cyber
- Workplace / School Violence

Local Mitigation Strategy Goals

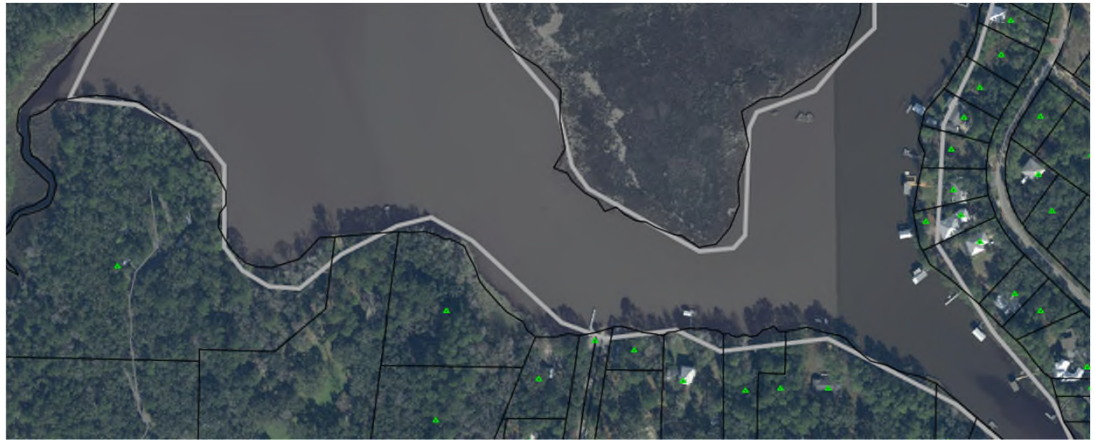
- Provide the communities with the programs and the administration to protect life and property.

Local Mitigation Strategy Goals

- To reduce the future expenses of the County, the municipalities, and their citizens by providing standards that will control developments in areas susceptible to damage by flooding and/or high winds.

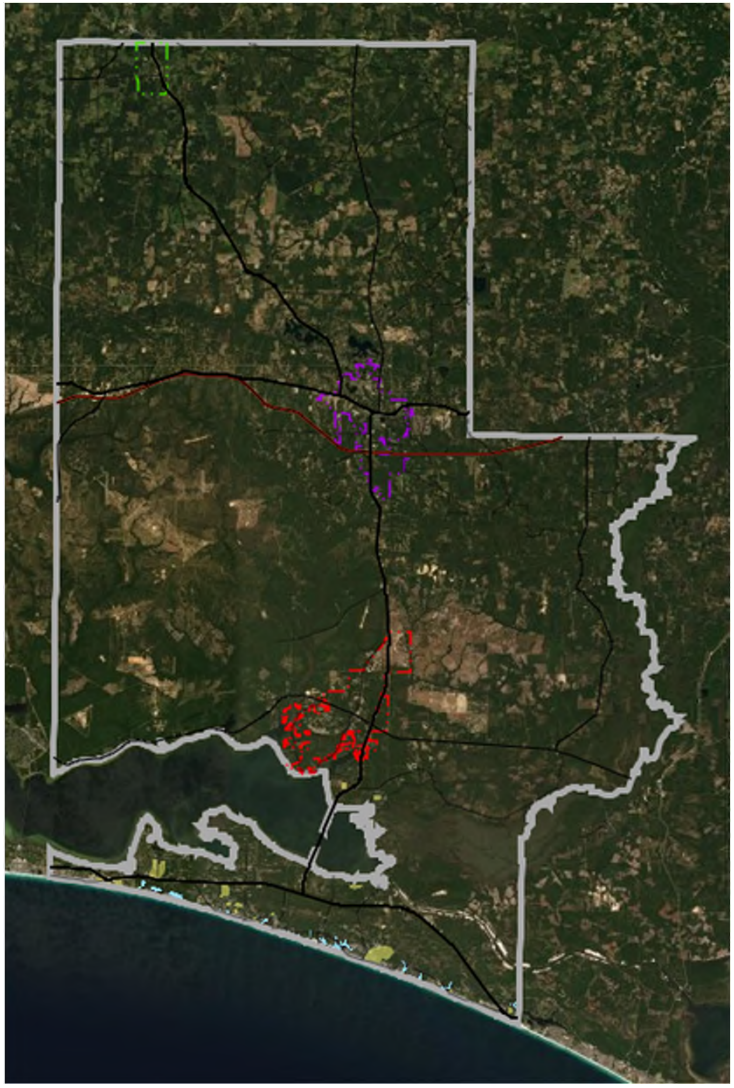
Local Mitigation Strategy Goals

- Protect the environment and natural resources of the area by controlling development activities that would damage or destroy watersheds, wetlands, coastal resources, or other natural areas which serve as natural buffers and help prevent extensive infrastructure damage.



Local Mitigation Strategy Goals

- The County and municipalities shall provide land use regulations to limit damage to developments.



Mitigation Actions You Can Take

- Purchase flood insurance.
- Elevate your home's lowest floor above the Base Flood Elevation (BFE).
- Elevate or floodproof HVAC and/or mechanical units, ductwork, electrical systems, and other utilities above the BFE.

Mitigation Actions You Can Undertake

- Reinforce garage doors and double-entry doors to prevent failure under wind pressure.
- Consider fastening the roof to the walls with hurricane straps.
- Gable end roofs are more susceptible to high wind than other roof types. If you have a gable end roof, add bracings to reinforce it.

Mitigation Actions You Can Undertake

- Install hurricane shutters to protect windows and glass doors.
- Have a go-kit and make an emergency plan.
- Consider purchasing a generator for your home.
- Store important documents and sentimental items like photographs in a safe place.

Public Survey

- A public survey was developed to get the public's opinion on:
  - Hazards
  - Preparedness
  - Notification
  - Demographics

- https://www.surveymonkey.com/r/WaltonCitizenSurvey

Next Steps

- The team will collect information from the surveys and other data for development of a draft plan.
- The goal is to have the draft developed by May 2020.
- Another public meeting will be conducted to present the plan and seek input.

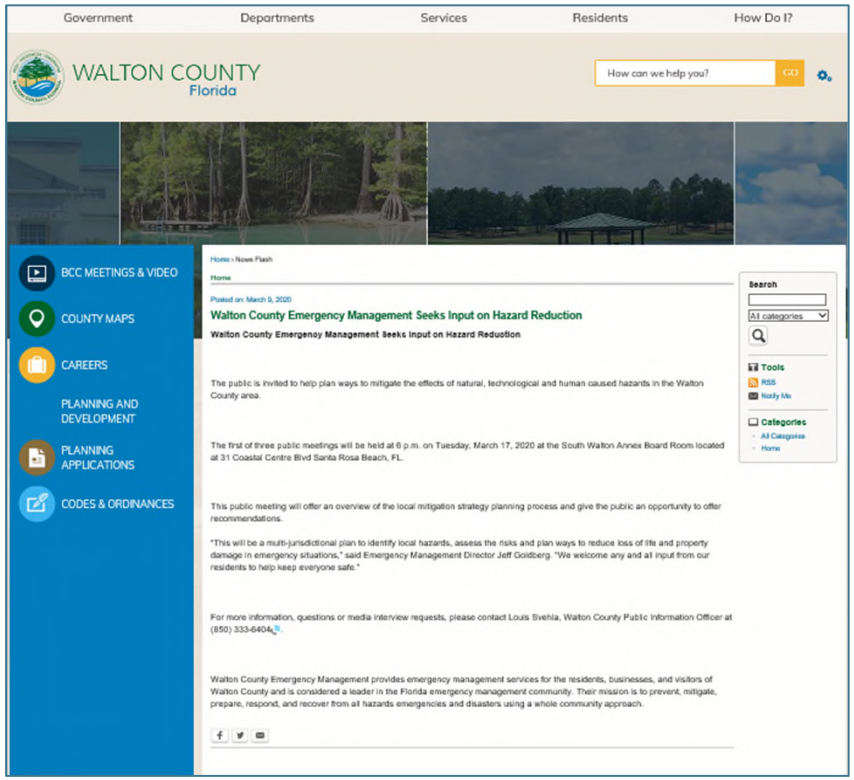
Walton County Website

Project Information is posted at:

https://www.co.walton.fl.us/

This site includes:

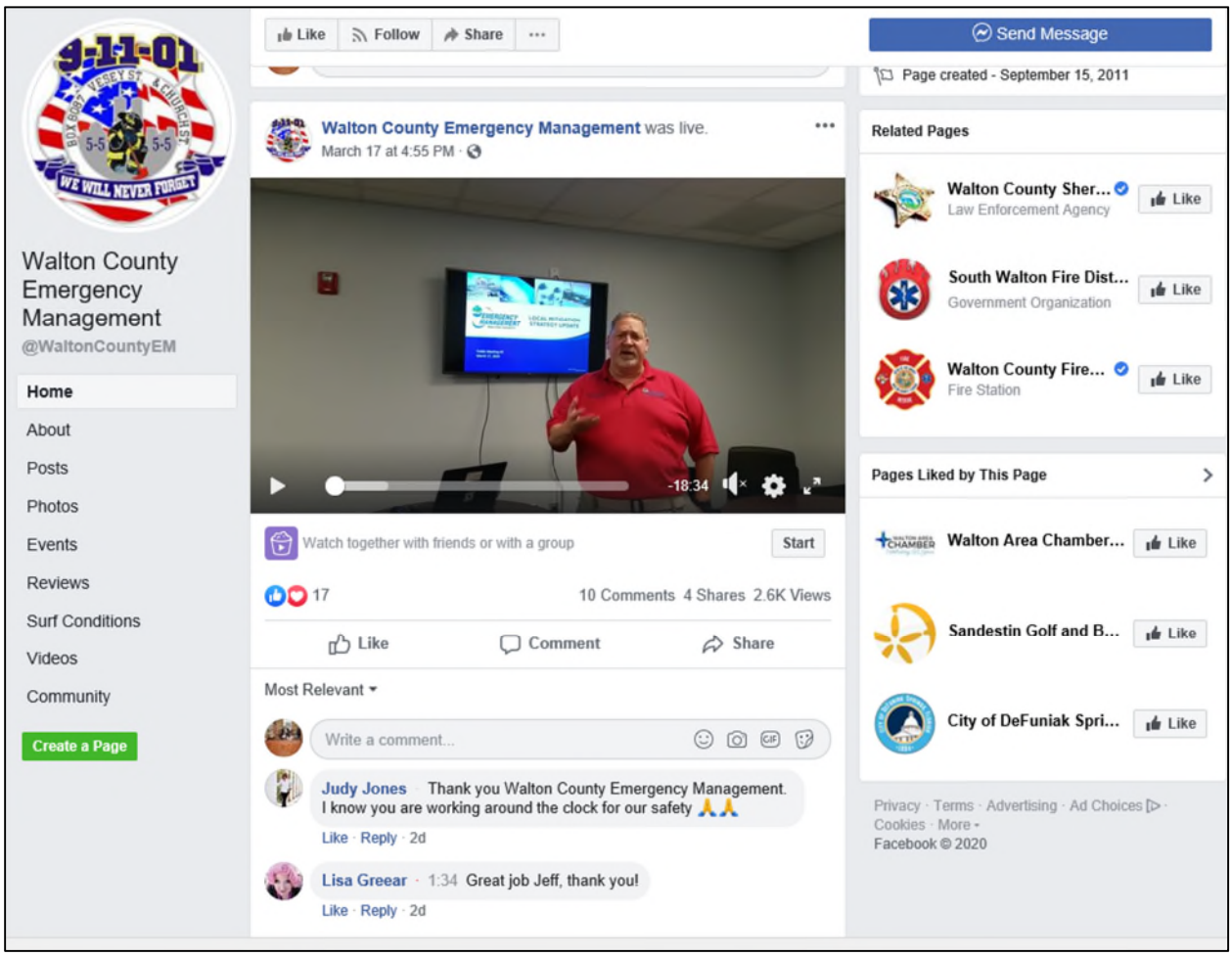
- Public notices of meetings
- Ongoing mitigation planning activities



QUESTIONS

Walton County LMS Update Public Meeting #2

March 17, 2020 6pm Screenshot via Facebook



Walton County, FL

3-17-2020 LMS Public Meeting #2 Notes

Time: 6:00 pm

Public meeting #2 for the Walton County LMS Update was conducted on March 17, 2020. Due to social distancing protocols from COVID-19, the meeting was conducted via FaceBook Live. Jeff Goldberg, Emergency Management Director for Walton County, provided the welcome to the meeting and introduced Brian Rutherford, with Tetra Tech, who presented information on the LMS update as well as things residents can do to mitigate hazards. Participants were also invited to complete the public survey to participate in the mitigation planning process. There were no participant questions during the airing of the presentation. The FaceBook Live video received 2,600 views.

Walton County
Local Mitigation Strategy Update Project
Working Group Meeting #3
AGENDA

May 14, 2020
1:30 pm – 3:00 pm

Online Meeting Hosted by Tetra Tech via Microsoft Teams Meeting

Topic	Time
Welcome and Introductions	1:30 pm – 1:40 pm
Review and finalize goals and objectives	1:40 pm – 2:10 pm
Discuss hazard mitigation projects » Get update on current hazard mitigation projects » Identify hazard mitigation projects for next five-year period	2:10 pm – 2:50 pm
Questions	2:50 pm – 2:55 pm
Final Comments/Adjourn	2:55 pm – 3:00 pm

Walton County Proposed LMS Goals and Objectives for 2020

1. Provide the communities with the programs and the administration to protect life, property, and support community lifelines.
    - 1.1. Enhance education strategies to improve the dissemination of information to the public regarding hazards, including the steps that can be taken to reduce their impact. (Public Education)
    - 1.2. Support continuity of operations pre-, during, and post- hazard events including the support of community lifelines. (Continuity of Operations – Lifelines)
2. Improve mitigation capabilities and reduce the future expenses of the County, the municipalities, and their citizens through the support of mitigation initiatives and provide standards to protect structures in areas susceptible to damage by flooding and/or high winds.
    - 2.1. Improve the capabilities of local government officials to reduce or eliminate hazards that cause loss of life, inflict injuries, cause property damage and to improve the protection of natural resources. (Local Capability Enhancement)
    - 2.2. Investigate and implement a range of structural projects that will reduce the effects of natural hazards on structures throughout the county. (Structural Enhancement)
3. Protect the environment and natural resources of the area by controlling development activities that would damage or destroy watersheds, wetlands, coastal resources, or other natural areas which serve as natural buffers and help prevent extensive infrastructure damage.
    - 3.1. Implement property protection measures to facilitate drainage and reduce the effects of natural hazards, including measures that reduce or eliminate repetitive loss occurrences. (Drainage and Repetitive Loss)
    - 3.2. Investigate and implement a range of nature-based solutions and utilize and enhance natural resources and their ability to reduce the impacts from natural hazards. (Protection of Wetlands)
4. Coordinate in planning and provide land use regulations to limit damage to developments.
    - 4.1. Work to improve and coordinate existing local plans, codes and regulations to reduce the impacts of natural hazards. (Planning and Code Improvements)
    - 4.2. Restrict development in hazard prone areas to eliminate the potential of damage to structures and natural resources and adopt building codes that limit damage caused by the local disasters such as wind loads and flood elevation. (Development/Planning)

Walton County, FL

May 14, 2020 LMS Update Meeting Summary

Time: 1:30pm – 2:45pm CDT

Attendees:

Anderson, Marc	South Walton Fire Department
Beatty, Russell	Walton County Sheriff's Office - Fire
Carpenter, Mac	Walton County Planning and Development Services
Catalano, Jason	Walton County Planning and Development
Cotton, Charles	Walton County Public Works
Donna Free	Walton County Emergency Management
Gainey, Michael	Walton County Public Works
Gates, Melinda	Walton County Public Works
Goldberg, Jeff	Walton County Emergency Management
Hughes, Latilda	Freeport Planning Department
Keeter, Alicia	South Walton Utility Company Inc.
Mcleary, Mac	Florida Division of Emergency Management
Rutherford, Brian	Tetra Tech
Siegler, Kristie	DeFuniak Springs Public Works
Steele, Crystal	Florida Department of Health Walton County
Svehla, Louis	Walton County Public Information

Welcome and Introductions

Brian Rutherford, Tetra Tech welcomed attendees, reviewed the agenda and everyone introduced themselves. In response to Covid-19 social distancing recommendations, the meeting was hosted on an online platform.

Review and Finalize Goals and Objectives

Brian presented the Goals and Objectives handout. The group decided to adopt the Goals and Objectives for the 2020 LMS update.

Table 1: Status of Previous Hazard Mitigation Projects

Project #	Project ID	Project Description	Project Status	Location + Responsible Jurisdiction
LMS-2009-00007	Walton County South Annex Storm Shutter	Install storm shutters on the Walton County South Annex	Carryover to 2020	Walton County
LMS-2009-00021	Critical Facilities Upgrade	Fixed generators for critical facilities	Complete	Walton County

Walton County, FL

May 14, 2020 LMS Update Meeting Summary

Project #	Project ID	Project Description	Project Status	Location + Responsible Jurisdiction
LMS-2009-00022	Portable Power Generation Project	Portable emergency information devices (signs, radio info,)	Complete	Walton County
LMS-2009-00029	Well PTO	Acquire a tractor with Power Take Off (PTO) to run wells in case of emergency.	Complete	Freeport
LMS-2009-00030	Mobile Pump Acquisition	Acquire mobile pump for use during power losses	Complete	Freeport
LMS-2009-00031	Local Road Network Project	Develop a network of interconnecting roadways to take Local traffic off of major highways	Delete	Freeport
LMS-2009-00032	Freeport Sewer Project	Extend sewer system around impacted waterways to reduce the use of septic tanks	In Progress	Freeport
LMS-2009-00033	Freeport Stormwater Improvements	Install a stormwater management system on major City Thoroughfares	Carryover to 2020	Freeport
LMS-2009-00036	Potable Water Storage Tank	Additional Storage Water Tanks	Delete	Paxton
LMS-2009-00041	Northwest Florida College Storm Shutter	Shutters for Northwest Florida College, Building Two	Delete	Walton County
LMS-2009-00042	Paxton Storm Shutter Installation	Shutters for Paxton School	Delete	Walton County
LMS-2009-00047	South Walton Stormwater Utility	Create South Walton Stormwater Utility	Delete	Walton County
LMS-2009-00055	Safe Room Construction	Construction of safe rooms for fire stations (to allow fire & emergency personnel to stay on location)	Delete	Freeport

Walton County, FL

May 14, 2020 LMS Update Meeting Summary

Project #	Project ID	Project Description	Project Status	Location + Responsible Jurisdiction
LMS-2009-00057	Hwy 20 & Kylea Laird Rd Intersection Improvements	Raise grade, place drains & headwall and repave intersection of Hwy 20 & Kylea Laird	Complete	Freeport
LMS-2009-00058	Hwy 20 &North Jackson Street Improvements	Raise grade, place drains & headwall and repave intersection of Hwy 20 & N Jackson	Complete	Freeport
LMS-2009-00059	CR3 3280 Bridge Replacement and Widening	CR 3280 Bridge Replacement and widening	Carryover to 2020	Walton County and HOA
LMS-2009-00062	Storm Shutter Installation	Install Storm shutters on windows	Delete	Walton County
LMS-2009-00063	Power Generation Project	Purchase NEW 150KW Back-Up generator	Delete	Walton County
LMS-2009-00069	SR81/SR 20 Realignment Project	SR 81/SR 20 Intersection realignment	Delete	Walton County
LMS-2009-00070	Long Road Improvements	Long Road Bridge & Roadway Replacement and upgrade	Carryover to 2020	Walton County
LMS-2009-00081	Paxton Water Storage Capacity Upgrade	Provide potable water for citizens	Carryover to 2020	Paxton
LMS-2009-00085	Sewer System Manhole Upgrade	Provide potable water for citizens	In Progress	Paxton
LMS-2014-00001	Ragsdale Buyout / Nursery Road / Repetitive Loss Property		Deleted	Walton County
LMS-2014-00002	South Walton Master Stormwater Plan		Deleted	Walton County
LMS-2014-00003	North Walton Master Stormwater Plan		Deleted	Walton County
LMS-2014-00004	Reid's Unrecorded Subdivision / Stormwater Flooding Issues / possible elevations.		Deleted	Walton County
LMS-2014-00005	Raker's Linkside Place / stormwater flooding issues		Deleted	Walton County
LMS-2014-00006	Pines of Blue Mountain subdivision / Blue Coral Drive stormwater flooding issues / 3 homes		Deleted	Walton County
LMS-2014-00007	Johnson / CR-393 Stormwater Flooding Issue		Deleted	Walton County

Project #	Project ID	Project Description	Project Status	Location + Responsible Jurisdiction
LMS-2014-00008	DeFuniak Springs Outdoor Warning System		Deleted	DeFuniak Springs

Discuss Future Hazard Mitigation Projects

After determining the status of the prior hazard mitigation projects, Brian took the group through a discussion about future they would like to pursue under the next LMS given the availability of funding. A number of ideas for projects were discussed including the following:

- Generators for Fire Stations
- Safe Rooms for Fire Stations
- Drought coordination planning between water utilities and County and City governments
- Reentry coordination planning between water utilities and County and City governments
- Review codes and policies for defensible space regulations to prevent wildfire damage of structures

In addition to the ideas discussed during the online work group meeting, calls were conducted the next day with work group members unable to participate in the online meeting. In the call with Carisse LeJeune, Deputy City Manager of the City of DeFuniak Springs, the following projects were identified:

- Bypass pumps for lift stations
- Construct hardened facility to house Police, Fire and Emergency Management
- Receive technical assistance for participation in CRS.

In a call with Judy D. Williams, Billing Clerk/Deputy Clerk from the City of Paxton, the following additional projects were identified:

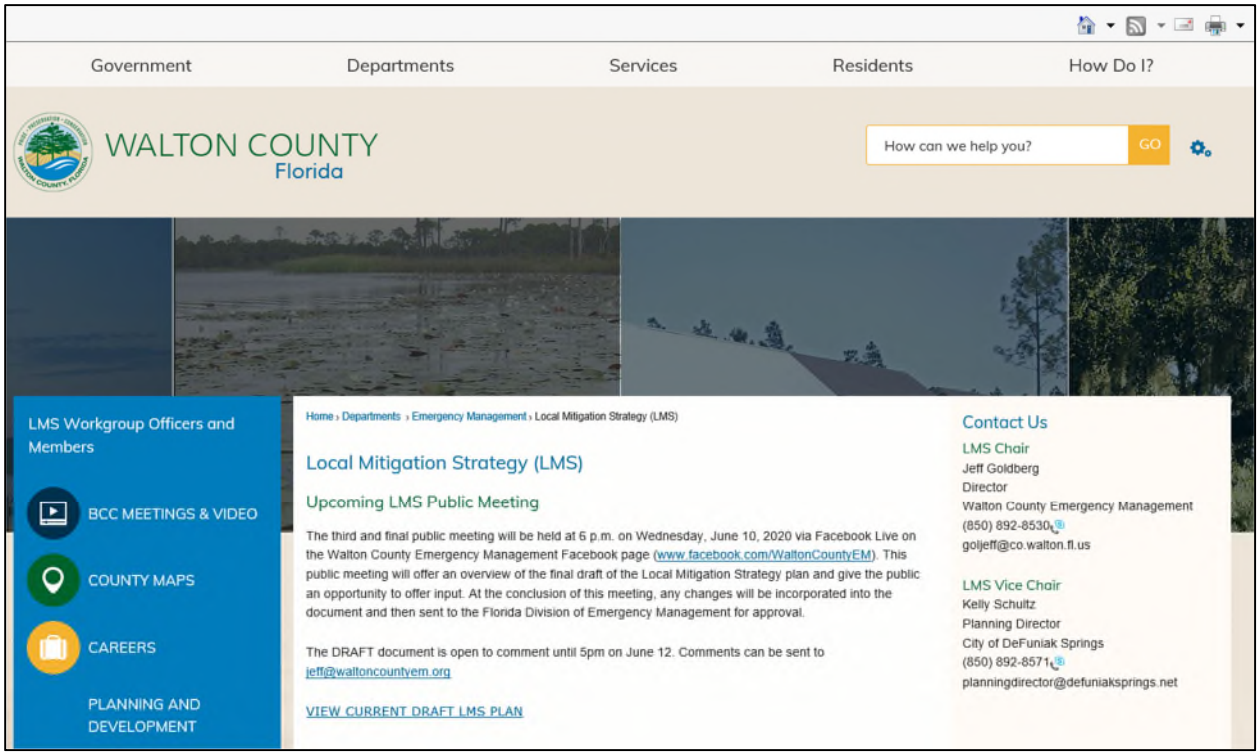
- Construct water storage tank for west side of town
- Construction of storm shelter

Work Group members were asked to contact Brian with additional thoughts regarding future hazard mitigation projects.

The meeting was adjourned at approximately 2:45 p.m.

The next meeting date and location are to be determined.

Announcement Regarding the Third and Final Public Meeting for the LMS Update



Government | Departments | Services | Residents | How Do I?

WALTON COUNTY
Florida

How can we help you? GO

LMS Workgroup Officers and Members

BCC MEETINGS & VIDEO

COUNTY MAPS

CAREERS

PLANNING AND DEVELOPMENT

Home › Departments › Emergency Management › Local Mitigation Strategy (LMS)

Local Mitigation Strategy (LMS)

Upcoming LMS Public Meeting

The third and final public meeting will be held at 6 p.m. on Wednesday, June 10, 2020 via Facebook Live on the Walton County Emergency Management Facebook page (www.facebook.com/WaltonCountyEM). This public meeting will offer an overview of the final draft of the Local Mitigation Strategy plan and give the public an opportunity to offer input. At the conclusion of this meeting, any changes will be incorporated into the document and then sent to the Florida Division of Emergency Management for approval.

The DRAFT document is open to comment until 5pm on June 12. Comments can be sent to jeff@waltoncountyem.org

VIEW CURRENT DRAFT LMS PLAN

Contact Us

LMS Chair
Jeff Goldberg
Director
Walton County Emergency Management
(850) 892-8530
goljeff@co.walton.fl.us

LMS Vice Chair
Kelly Schultz
Planning Director
City of DeFuniak Springs
(850) 892-8571
planningdirector@defuniaksprings.net

WALTON COUNTY LOCAL MITIGATION STRATEGY UPDATE

Public Meeting
June 10, 2020

complex world | CLEAR SOLUTIONS™

Meeting Purpose

- Provide a brief overview of the updated Walton County Local Mitigation Strategy.

What is Mitigation?

- Any action taken to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster.

Benefits of Hazard Mitigation Planning

- Hazard mitigation planning helps to identify strategies and actions that will reduce risk for those who live in, work in, and visit the county.
- Provides a viable planning framework for all foreseeable natural hazards that may impact the county.
- Participation in the development of the plan by key stakeholders in the county helps to ensure that outcomes will be mutually beneficial.

Benefits of Hazard Mitigation Planning

- Reduce the loss of life, protect property, essential services, critical facilities, and prevent economic hardship
- Reduce short-term and long-term recovery and reconstruction costs
- Increase cooperation and communication within the community through the planning process
- Increase potential for state and federal funding for pre- and post-disaster projects

Walton County Local Mitigation Strategy Work Group

- City of DeFuniak Springs
- City of Freeport
- City of Paxton
- Florida Department of Health, Walton County
- Florida Division of Emergency Management
- Muscogee Nation of Florida
- Regional Utilities
- South Walton Fire District
- Walton County Government
- Walton County Sheriff's Office
- Walton County Tourist Development Council
- Walton County School District
- South Walton Utility Company, Inc.
- Walton Area Chamber of Commerce

The Work Group Planning Process

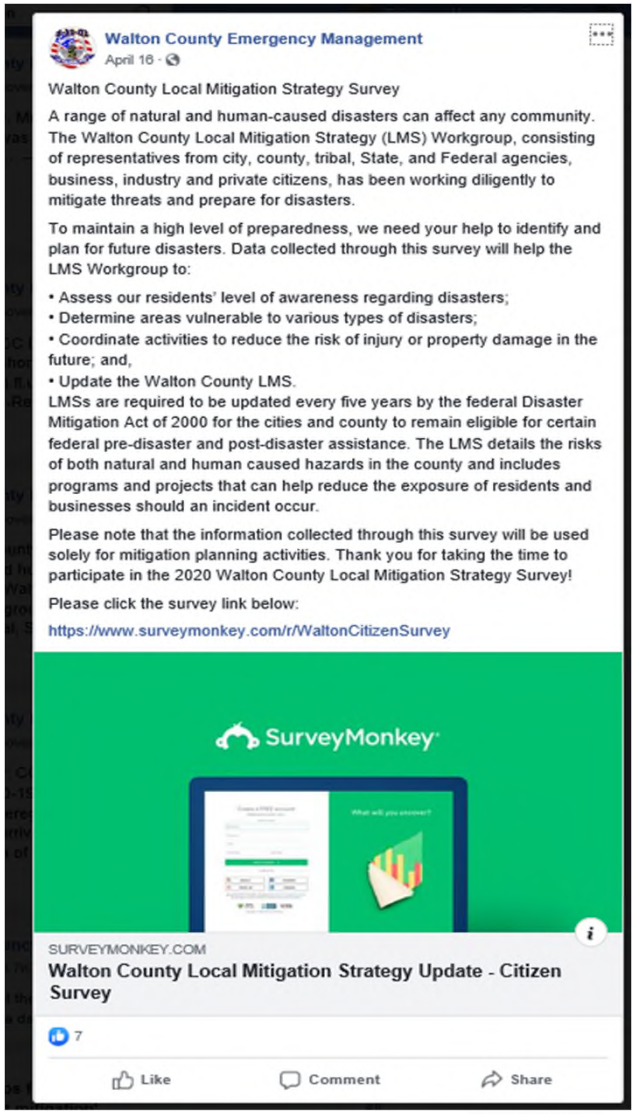
- January 23rd Kickoff/LMS Work Group Meeting #1
- March 17th LMS Work Group Meeting #2
- Capability assessment worksheets provided to the County and Cities
- May 14th LMS Work Group Meeting #3
- June 10th LMS Work Group Meeting #4

Public Meetings

- The first public meeting was conducted on January 23, 2020 at the Freeport Annex Room.
- The second public meeting was conducted on March 17, 2020 via Facebook Live in support of social distancing initiatives.
- This is the third public meeting conducted on June 10, 2020 via Facebook Live in support of social distancing initiatives.

Public Survey

- A public survey was developed to get the public's opinion on:
  - Hazards
  - Preparedness
  - Notification
  - Demographics
- Received 115 responses to the survey.



Walton County Emergency Management
April 16 ·

Walton County Local Mitigation Strategy Survey

A range of natural and human-caused disasters can affect any community. The Walton County Local Mitigation Strategy (LMS) Workgroup, consisting of representatives from city, county, tribal, State, and Federal agencies, business, industry and private citizens, has been working diligently to mitigate threats and prepare for disasters.

To maintain a high level of preparedness, we need your help to identify and plan for future disasters. Data collected through this survey will help the LMS Workgroup to:

• Assess our residents' level of awareness regarding disasters;
• Determine areas vulnerable to various types of disasters;
• Coordinate activities to reduce the risk of injury or property damage in the future; and,
• Update the Walton County LMS.

LMSs are required to be updated every five years by the federal Disaster Mitigation Act of 2000 for the cities and county to remain eligible for certain federal pre-disaster and post-disaster assistance. The LMS details the risks of both natural and human caused hazards in the county and includes programs and projects that can help reduce the exposure of residents and businesses should an incident occur.

Please note that the information collected through this survey will be used solely for mitigation planning activities. Thank you for taking the time to participate in the 2020 Walton County Local Mitigation Strategy Survey!

Please click the survey link below:

https://www.surveymonkey.com/r/WaltonCitizenSurvey

SURVEYMONKEY.COM
Walton County Local Mitigation Strategy Update - Citizen Survey

7

Like Comment Share

County Profile Facts

- Walton County population estimate for 2018 was 71,375.
- The population increased 23% from 5 years ago.
- Walton County is one of the fastest growing counties in the State.
- DeFuniak Springs' population in 2018 was 6,719
- Freeport's population in 2018 was 2,472
- Paxton's population in 2018 was 822
- Unincorporated Walton County population was 61,362

What Has Changed?

- Added *Epidemic/ Pandemic Profile*
- Added *Agricultural Diseases and Pests Profile*
- Deleted *Riverine Erosion* from the *Erosion* Profile and consolidated it to be titled *Coastal Erosion* since Walton County had no previous incidents of riverine erosion. See the *Coastal Erosion* profile for more information.
- Added *Transportation Incidents Profile*
- Added *Utility Outages Profile*
- Expanded the *Terrorism* section to include information on bioterrorism, chemical, and explosive terrorism incidents.
- Added *Workplace and School Violence Profile*

Organization of the Local Mitigation Strategy

1. Introduction
2. LMS Planning Process
3. Hazard Identification and Risk Assessment
   - County Profile, Summary of Changes
   - Federal Disaster Declarations/Storms Events
   - Critical Facilities, Building Data
   - 15 Hazards Profiles
4. Mitigation Strategy
   - Goals and Objectives
   - National Flood Insurance Program and Community Rating System
   - Update of Prior Mitigation Projects
   - New Mitigation Initiatives
5. Plan Maintenance

Organization of the Local Mitigation Strategy

- Appendices
  - A. Walton County Capability Assessment
  - B. City of DeFuniak Springs Capability Assessment
  - C. City of Freeport Capability Assessment
  - D. City of Paxton Capability Assessment
  - E. Development Trends
  - F. LMS Review Tool Summary
  - G. Public Involvement and Meeting Materials
  - H. Public Survey Results
  - I. Vulnerability Assessment Summary

Walton County Emergency/Disaster Declarations

Flooding	1975
High winds, heaving rains and flooding	1975
Hurricane Frederic	1979
Flooding, severe storm	1990
Tropical Storm Alberto	1994
Tropical Storm Alberto	1994
Hurricane Erin	1995
Hurricane Opal	1995
Extreme fire hazard	1998
Hurricane Georges	1998
Hurricane Georges	1998
Tornadoes	1195
Fire hazard	1999
Chipola River Fire Complex	2001
Hurricane Frances	2004
Hurricane Ivan	2004

Hurricane Charley and Tropical Storm Bonnie	2004
Hurricane Dennis	2005
Hurricane Katrina	2005
Hurricane Katrina Evacuation	2005
Black Creek Fire	2007
Tropical Storm Fay	2008
Severe Storms, Flooding, Tornadoes, and Straight-line Winds	2009
Severe Storms and Flooding	2013
Severe Storms, Tornadoes, Straight-line Winds, and Flooding	2014
Hurricane Irma	2017
Hurricane Irma	2017
Hurricane Michael	2018
Hurricane Michael	2018
Hurricane Dorian	2019
Covid-19	2020
Covid-19 Pandemic	2020

Natural Hazards of Concern

- Dam Failure
- Disease Outbreak
  - Epidemic/Pandemic
  - Animal/Plant
    - Agricultural Pests
- Drought
- Erosion - Coastal
- Flood
  - Tsunami
  - Storm surge flooding
  - Areal / Riverine

Picture by Walton County Emergency Management

Natural Hazards of Concern

- Geological
  - Earthquake
  - Sinkholes
- Severe weather
  - Thunderstorms
  - Tropical Cyclones
    - Tropical Storms
    - Hurricanes
  - Tornadoes
  - Extreme Temps
  - Cold
  - Heat
- Wildfire / Urban fire
- Winter Storm

Picture by Walton County Fire, WEARTV.com

Technological Hazards of Concern

- Hazardous Materials Incident
  - Fixed Facility
  - Transportation
- Transportation Incident
  - Air
  - Rail
  - Highway
- Utility Outages

FAA Photo, DeFuniak Springs Airport, 5/19/2018

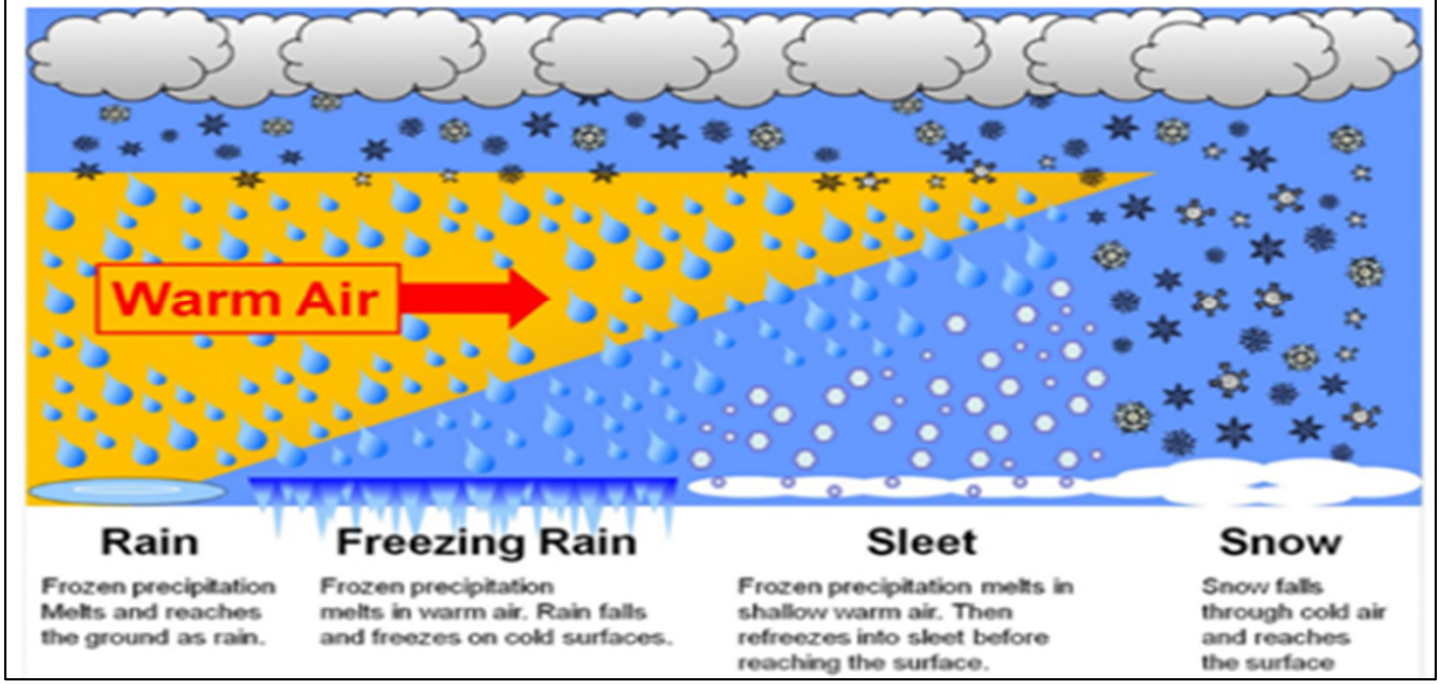
Human Caused Hazards of Concern

- Terrorism
  - Chemical
  - Biological
  - Radiological
  - Nuclear
  - Explosive
  - Cyber
- Workplace / School Violence

Hazard Description

- What is the hazard and how does it occur?

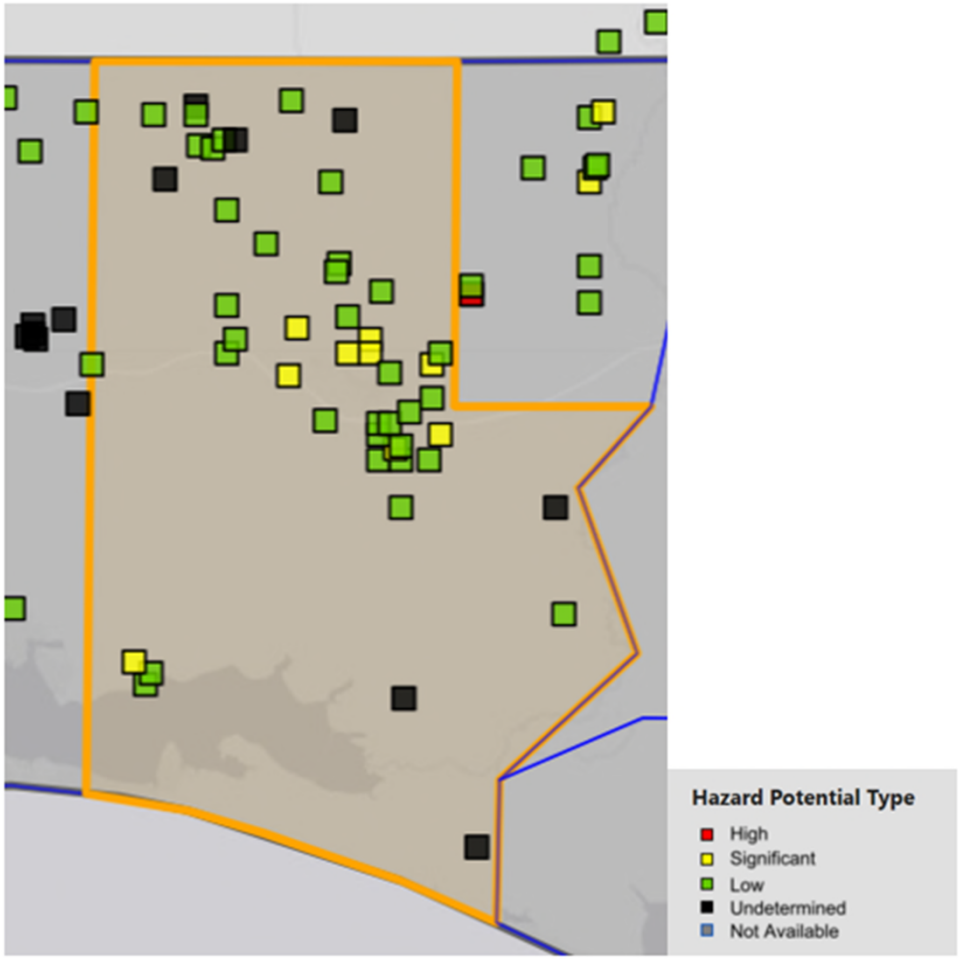
Figure 3-5-10.1. Freezing Rain Creation[154]



Location

- Where is the hazard located?

Figure 3-5-1.1. Walton County Dams Hazard Potential Type by Location[7]



Extent

- What is the potential strength or magnitude of the hazard?

Understanding Severe Thunderstorm Risk Categories

THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	**Isolated severe thunderstorms possible**	**Scattered severe storms possible**	**Numerous severe storms possible**	**Widespread severe storms likely**	**Widespread severe storms expected**
Lightning/flooding threats exist with all thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense
• *Winds to 40 mph* • *Small hail*	• *Winds 40-60 mph* • *Hail up to 1"* • *Low tornado risk*	• *One or two tornadoes* • *Reports of strong winds/wind damage* • *Hail ~1", isolated 2"*	• *A few tornadoes* • *Several reports of wind damage* • *Damaging hail, 1 - 2"*	• *Strong tornadoes* • *Widespread wind damage* • *Destructive hail, 2"+*	• *Tornado outbreak* • *Derecho*

* NWS defines a severe thunderstorm as measured wind gusts to at least 58 mph, and/or hail to at least one inch in diameter, and/or a tornado. All thunderstorm categories imply lightning and the potential for flooding. Categories are also tied to the probability of a severe weather event within 25 miles of your location.

Previous Occurrences

- How often has the hazard occurred in the past?

Table 3-5-6.3. Flood-related USDA Disaster Declarations 2012-April 2020 for Walton County[71]

Declaration	Event Date	Declaration Date	Event Description
S4461	October 10, 2018	March 20, 2019	Hurricane Michael
S4437	October 10, 2018 – October 11, 2018	November 15, 2018	Excessive Wind, Rain, Flooding Due to Hurricane Michael
S4273	September 9, 2017 – September 12, 2017	January 2, 2018	Hurricane Irma
S3939	September 1, 2015 – November 20, 2015	December 9, 2015	Excessive Rain, Wind, Flooding
S3586	January 1, 2013 – Continuing	September 18, 2013	Excessive Rain, Flooding
S3571	June 4, 2013 – August 1, 2013	August 21, 2013	Excessive Rain, Flooding
S3502	February 4, 2013 – March 4, 2013	April 3, 2013	Frost, Excessive Rain, Flooding, Flash Flooding, High Winds

Probability of Future Events

- How likely is the hazard to occur in the future?

Table 3-5-1.4. Probability of Future Occurrence of Dam Failure Events

Hazard Type	Number of Occurrences Between 1950 and 2018	Rate of Occurrence or Annual Number of Events (average)	Recurrence Interval (in years) (# Years/Number of Events)	Probability of Event in any given year	% chance of occurrence in any given year
Dam Failure	1	0.01	70.00	0.01	1.43%

Vulnerability and Risk Assessment

- If it happens, how susceptible is the County to physical injury, harm, damages or economic loss from the hazard?

Table 3-5-2.2. Epidemic/Pandemic Hazard Priority

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Epidemic / Pandemic	Medium	High	High	Medium	Medium

Vulnerability and Risk Assessment Summary

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Highway Accidents	High	High	High	High	High
Tropical Cyclones*	High	High	High	Medium	High
Thunderstorms	High	Low	High	High	High
Epidemic / Pandemic	Medium	High	High	Medium	Medium-High
Avian Influenza*	Medium	High	High	Medium	Medium-High
Urban Fire	High	Medium	Medium	High	Medium-High
Storm Surge	High	Medium	Medium	High	Medium
Areal / Riverine Flooding	High	Medium	Medium	High	Medium
Tornadoes	Medium	High	Medium	High	Medium
Aviation Accidents	Medium	Medium	Medium	High	Medium
Wildfire	Medium	Medium	Low	High	Medium

Vulnerability and Risk Assessment Summary

Hazardous Materials Incidents	High	Medium	Low	High	Medium
Cyberterrorism	Medium	High	Low	High	Medium
Eastern Lubber Grasshopper	High	Medium	Low	Medium	Medium
Emerald Ash Borer	Medium	High	Low	Medium	Medium
Coastal Erosion	High	Low	Low	Low	Medium
Utility Outage	High	Low	Low	High	Medium
Chemical, Biological, Radiological, Nuclear, Explosive	Low	Medium	High	High	Medium
Workplace and School Violence	Low	Low	High	High	Medium
Foot and Mouth Disease	Low	High	Low	Medium	Medium

Vulnerability and Risk Assessment Summary

Hail	Low	Medium	Low	High	Medium
Dam Failure	Low	Medium	Low	High	Low
Drought	Medium	Low	Low	High	Medium
Railroad Accidents	Low	Low	Medium	High	Medium
Extreme Temperatures**	Medium	Low	Low	Medium	Medium
Sinkhole	Medium	Low-Medium	Low-Medium	Low	Low-Medium
Tsunami	Low	High	High	High	Low
Earthquake	Low	Low	Low	High	Low
Freezing Rain	Low	Low	Low	Medium	Low
Snow Flurries	Low	Low	Low	Medium	Low
Sleet	Low	Low	Low	Medium	Low

Goal 1

1. Goal: Provide the communities with the programs and the administration to protect life, property, and support community lifelines.

Goal 1 Objectives

- 1.1: Enhance education strategies to improve the dissemination of information to the public regarding hazards, including the steps that can be taken to reduce their impact.
- 1.2: Support continuity of operations pre-, during, and post- hazard events including the support of community lifelines.

Goal 2

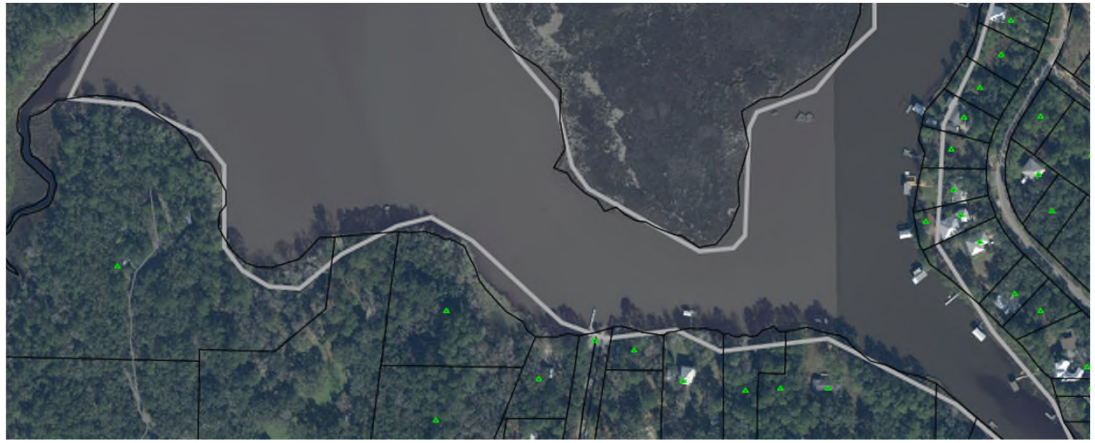
2. Goal: Improve mitigation capabilities and reduce the future expenses of the County, the municipalities, and their citizens through the support of mitigation initiatives and provide standards to protect structures in areas susceptible to damage by flooding and/or high winds.

Goal 2 Objectives

- 2.1: Improve the capabilities of local government officials to reduce or eliminate hazards that cause loss of life, inflict injuries, cause property damage and to improve the protection of natural resources.
- 2.2: Investigate and implement a range of structural projects that will reduce the effects of natural hazards on structures throughout the county.

Goal 3

3. Protect the environment and natural resources of the area by controlling development activities that would damage or destroy watersheds, wetlands, coastal resources, or other natural areas which serve as natural buffers and help prevent extensive infrastructure damage.

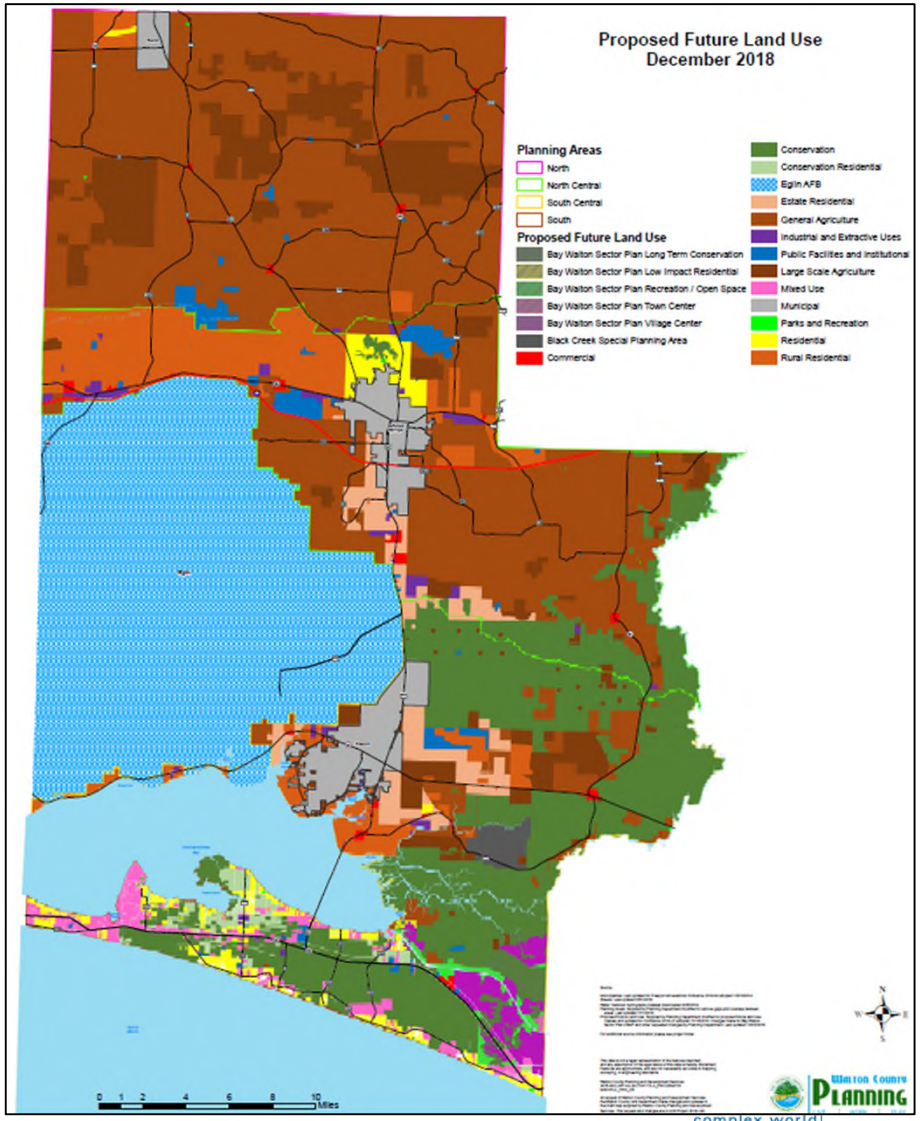


Goal 3 Objectives

- 3.1: Implement property protection measures to facilitate drainage and reduce the effects of natural hazards, including measures that reduce or eliminate repetitive loss occurrences.
- 3.2: Investigate and implement a range of nature-based solutions and utilize and enhance natural resources and their ability to reduce the impacts from natural hazards.

Goal 4

4. Coordinate in planning and provide land use regulations to limit damage to developments.



Goal 4 Objectives

- 4.1: Work to improve and coordinate existing local plans, codes and regulations to reduce the impacts of natural hazards.
- 4.2: Restrict development in hazard prone areas to eliminate the potential of damage to structures and natural resources and adopt building codes that limit damage caused by the local disasters such as wind loads and flood elevation.

Types of Mitigation Actions Identified

- Hardening of facilities
- Generators
- Drought planning
- Reentry coordination planning
- Review county and municipal codes
- Continue participation in the Nation Flood Insurance Program.
- Water storage tank construction
- Monitor for beach erosion
- Retrofit, relocate or purchase structures in hazard areas
- Conduct outreach for vaccination campaigns, wildfire prevention, transportation and workplace and school violence

Walton County Mitigation Website

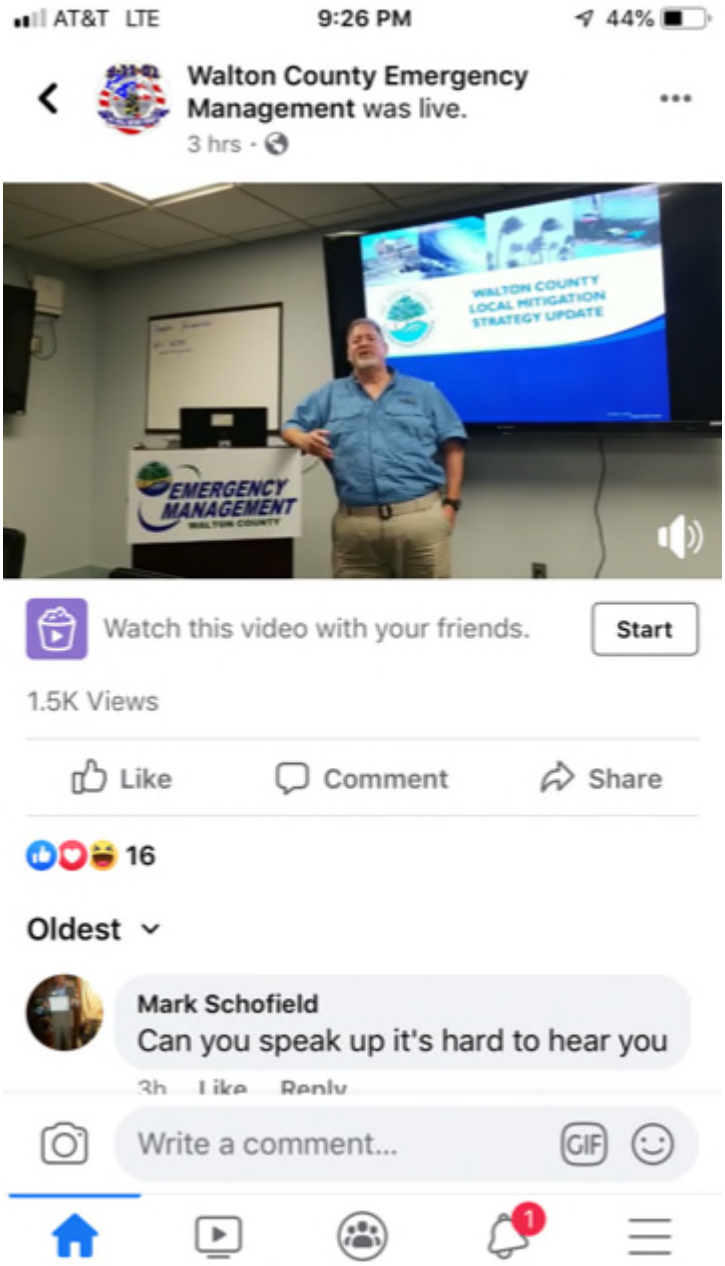
Project Information is posted at:
https://www.co.walton.fl.us/569/Local-Mitigation-Strategy-LMS

This site includes:

- Local mitigation strategy
- Local mitigation strategy work group meeting information
- Links to meeting agendas and minutes

QUESTIONS

Public Meeting #3 FaceBook Live Meeting



Walton County, FL

6-10-2020 LMS Public Meeting #3 Notes

Time: 6:00 pm

Public meeting #3 for the Walton County LMS Update was conducted on June 10, 2020. Due to social distancing protocols from COVID-19, the meeting was conducted via FaceBook Live. Jeff Goldberg, Emergency Management Director for Walton County, provided the welcome to the meeting and introduced Brian Rutherford, with Tetra Tech, who presented an overview of the updated LMS. There were no participant questions during the airing of the presentation. The FaceBook Live video received 1,500 views as of June 11, 2020.

Walton County Local Mitigation Strategy Update 2020

Appendix G: Public Survey Results

Walton County LMS Update Public Survey Posted on Walton County Website

WALTON COUNTY
Florida

How can we help you? GO

BCC MEETINGS & VIDEO
COUNTY MAPS
CAREERS
PLANNING AND DEVELOPMENT
PLANNING APPLICATIONS
CODES & ORDINANCES

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Home

Posted on: April 9, 2020

Walton County EOC Launches Needs Assessment Survey

In order to provide assistance to those in need, the Walton County Emergency Operations Center's Human Services Branch has created a local Walton County Needs Assessment Survey that can be found at humanneeds.waltoncovid19.org.

Members of the public are being asked to complete and submit this survey to provide a solid understanding of the unmet needs of our community.

This survey will allow Human Services partners to determine unmet needs and allow them to strategize ways to find possible assistance for those in need.

Additionally, if you are in a place that you would like to Volunteer your time to help the community, we would love to hear from you as well. To sign-up as a volunteer, you may contact the Matrix Community Outreach Center at 850-892-1090.

The completion of the survey is not a guarantee of service.

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Walton County Local Mitigation Strategy Survey

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Early Learning Coalition of the Emerald Coast Offers Child Care Funding for First Responders...

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Census 2020 - Don't Forget to be Counted... it Matters.
Posted on: April 16, 2020

Walton County Local Mitigation Strategy Survey
Posted on: April 16, 2020

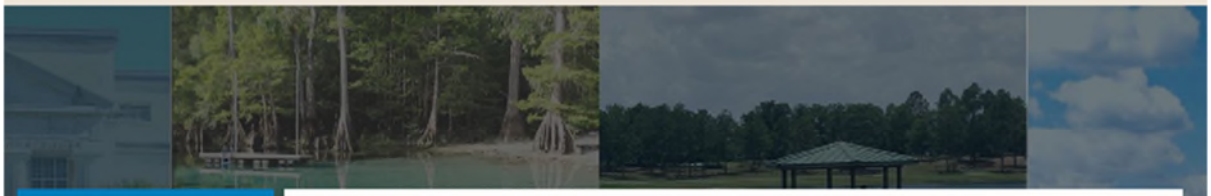
Early Learning Coalition of the Emerald Coast Offers Child Care Funding for First Responders...
Posted on: April 9, 2020

Thanks to the WCBCC and the Florida Governor, Walton County Sees Low Tourist Numbers...
Posted on: April 8, 2020

USDA Implements Immediate Measures to Help Rural Residents, Businesses and Communities
Posted on: April 8, 2020

County Recycling Trailer Program Temporarily Suspended
Posted on: April 8, 2020

Walton County www.WaltonCOVID19.org Website
Posted on: April 8, 2020



Posted on: April 16, 2020

Walton County Local Mitigation Strategy Survey

Walton County Local Mitigation Strategy Survey

A range of natural and human-caused disasters can affect any community. The Walton County Local Mitigation Strategy (LMS) Workgroup, consisting of representatives from city, county, tribal, State, and Federal agencies, business, industry and private citizens, has been working diligently to mitigate threats and prepare for disasters. To maintain a high level of preparedness, we need your help to identify and plan for future disasters.

Data collected through this survey will help the LMS Workgroup to:

• Assess our residents' level of awareness regarding disasters;

• Determine areas vulnerable to various types of disasters;

• Coordinate activities to reduce the risk of injury or property damage in the future; and,

• Update the Walton County LMS.

LMSs are required to be updated every five years by the federal Disaster Mitigation Act of 2000 for the cities and county to remain eligible for certain federal pre-disaster and post-disaster assistance. The LMS details the risks of both natural and human caused hazards in the county and includes programs and projects that can help reduce the exposure of residents and businesses should an incident occur. Please note that the information collected through this survey will be used solely for mitigation planning activities. Thank you for taking the time to participate in the 2020 Walton County Local Mitigation Strategy Survey!

Take the Survey

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Census 2020 - Don't Forget to be Counted... It Matters.

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Walton County EOC Launches Needs Assessment Survey

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Posted on: April 8, 2020

Walton County 2020 Local Mitigation Strategy Update - Citizen Survey Results						
Q1. Please indicate the municipality in which you live:						
Answer Choices	Response Percent	Responses				
Paxton	3.51%	4				
DeFuniak Springs	21.05%	24				
Freeport	13.16%	15				
Walton County	51.75%	59				
Muskogee Tribe	0.0%	0				
Other (please specify)	10.53%	12				
	Answered	114				
	Skipped	1				
Q1. Other Responses Below						

- Santa Rosa Beach
- Choctaw Beach
- West Santa Rosa Beach
- Santa Rosa Beach
- South Walton
- Bay County
- South Walton Utility Co., Inc.
- Mossy Head
- South Walton / Seagrove
- Panama City Beach
- Santa Rosa Beach
- Liberty

Q2. How long have you lived here?						
Answer Choices	Response Percent	Responses				
Less than 1 year	6.14%	7				
1 to 5 years	26.32%	30				
6 to 9 years	14.04%	16				
10 to 19 years	24.56%	28				
20 years or more	28.95%	33				
	Answered	114				

	Skipped	1				

Q3. Do you own or rent your place of residence?						
Answer Choices	Response Percent	Responses				
Own	89.57%	103				
Rent	10.43%	12				
	Answered	115				
	Skipped	0				

Q4. What street is your property on? (optional, will be kept confidential – only used to identify hazard areas such as flooding)						
Answered	101					
Skipped	14					
Q4 Responses Below:						

- Wesley Rd
- Concert Ct.
- Eve Circle
- Co. Hwy. 90 W.
- Us 331
- Amber Lane
- Beachside One Drive
- Circle Drive
- Tropical Way
- Rock Hill Rd
- Tops'l Beach Blvd
- Canopy Cv
- Wood Beach Drive
- 42 Austinwood Lane
- Brushed Dunes Circle
- Howard Street
- Tang O Mar
- Watersound
- Ten Lake Drive
- Darrell Court
- Cannonball Lane
- Grande Pointe
- 342 Roberts Rd. East
- Off Of Mack Bayou Road
- Concert CT
- Hwy 2 W
- Bell Dr
- Lake Pointe Dr
- Ventana Blvd
- Wood Beach
- 30a
- Hwy 1087
- Corbin Gainey
- West Shipwreck Rd
- Pleasant Ridge Road
- Blue Wave Drive
- N County Highway 393
- Charming Way
- 43 Dune Ridge Road
- Don Graff
- 975 Blue Pond Lane
- Hwy 331
- Sky High Dune Drive
- Grayling Way
- Twin Lakes Drive
- Waterview Cove Dr
- Stinson
- Little Canal
- Brighton Cove
- Club Drive
- Gulfview Circle

- 1111 North Haven Cir
- East Royal Fern
- South Wall Street
- Sandgrass Boulevard
- Miramar Beach Dr
- Live Oak Ave E
- Sexton
- 20 West
- 110 Phil Harris Drive
- Kingslake Blvd.
- Camellia CT
- Secret Harbor
- Fowersview Blvd
- Artesian Way
- 34 Herons Watch Way
- 30A East
- 331 Business
- Boy Scout Rd
- Millers Way
- Richardson Road
- Sandgrass Blvd
- Coy Ellis Rd
- Linkside
- Fox Glove Lane
- Blue Coral
- Village Ct
- Gene Hurley Road
- Amber Lane
- Bentley Lane
- Aero Drive
- Seascape Drive
- 393
- Live Oak Ave W
- Bayou Manor Road
- Dr. Robert's Dr
- Daisy Lane
- Brushed Dunes
- 224 Passion Flower St.
- Optional
- Hammock Bay
- 30a
- S 13th St
- Palmetto Street
- Ramsey Branch Road
- Cr 1084
- Blue Pond Circle
- 326 Cabana Trail (30a)
- Mckinnon Bridge Road
- Timber Wind
- First

Q5. What type of residence do you live in?						
Answer Choices	Response Percent	Responses				
Single-family detached	85.22%	98				
Multi-family detached	0.0%	0				
Town Home	2.61%	3				
Condominium	6.09%	7				
Apartment Complex	0.87%	1				
Commercial	1.74%	2				
Other (please specify)	3.48%	4				
	Answered	115				
	Skipped	0				

Q5 Other Response Below:

- RV
- Mobile
- Attached Villa
- Mobile home

Q6. In the past 10 years, which of the following types of hazards/natural disasters have you or someone in your household experienced within Walton County, or sustained damage as a result of? How concerned are you about the following hazards impacting the County? (In the first column indicate if you have experienced the hazard, then indicate your level of concern).						
Answer Choices	Have Experienced	Not Concerned	Somewhat Concerned	Very Concerned	Extremely Concerned	Total
Flooding - Street/Property	27	36	39	5	1	92
Flooding - 1st floor or above	3	54	26	2	0	83
Flooding (Tsunami, storm surge flooding, areal/ riverine)	6	49	24	6	2	85
Geological (sinkhole, earthquake)	2	56	23	3	2	85
Severe Storm (thunderstorm, tropical cyclone (tropical storm, hurricane), tornado)	55	4	29	30	16	98
Wildfire / Urban fire	7	31	35	16	1	86
Drought	20	29	40	7	4	89
Extreme Temperatures (hot, cold)	26	35	31	5	6	88
Disease Outbreak (epidemic/pandemic, animal/plant, agricultural pests)	48	7	27	23	26	97
Winter Storm	18	56	22	3	2	89
Dam Failure	2	73	5	2	1	83
Other (indicate in comment box below)	4	25	2	1	5	36
Other (please specify)						10
					Answered	98
					Skipped	17
Q6: Other Responses Below						

- Civil War
- Public safety & health
- High Winds/Potential Tree Damage
- Overdevelopment
- Lack of reliable cellular reception and wifi for alerts to be received and for 911. Also poor roads for emergency vehicles
- Lack of tornado siren
- Unregulated tourism
- Wind damage on trees, power poles
- Spring breakers
- Insects - My mosquito control easement has never been clean

Q7. In the last 10 years, were you evacuated from your home as a result of a natural disaster (i.e. flooding, utility outages, etc.)? If so, how long were you displaced? Did you go to a shelter?						
Answered	90					
Skipped	25					
Q7 Other Responses Below						

- Michael, 1 day, no
- Yes, but we returned immediately after Hurricane Michael and had a generator for a few days.
- No
- no
- no
- Hurricane Michael - didn't evacuate per suggestion
- No, we were not evacuated.
- Hurricane Michael/No
- utility outage. few days displaced and no shelter
- yes
- Yes went to hotel
- No
- No
- Yes - did not go to a shelter
- 1 day to a week evaluated to 2nd property
- No
- no
- No
- Yes. Hurricane. Have primary home in Atlanta
- no
- Yes
- Yes, No Shelter evacuated north with RV
- No
- no
- yes, several days. Did not go to a shelter
- No
- Yes, four days
- 3 time, Dennis 3 days, Ivan 3 days, Micheal 1 day
- voluntarily evacuated for 3 days. Used hotel.
- Yes, 1-2 weeks, no
- No
- Hurricane Michael 2018 for 3 days
- 1week. No
- No
- 1 week - no shelter, friend's house
- No
- 3 days, went to a hotel in central Alabama
- No
- No
- No
- 4 days. No.
- No
- no
- No
- No
- Hurricane, utility outage for over 2 weeks, friend or motel
- No
- No
- Yes, 3 days, did not go to a shelter
- No
- no
- Yes, evacuated to hotel, 2 nighta
- no
- no
- No

- Evacuated 3 times to hotel due to hurricane threat
- NO
- Yes, 5 days at a hotel
- no
- Yes, 3 days, No
- no
- Yes, 1 week no shelter
- No
- No
- No
- no
- Hurricane Michael, 2 days in hotel
- 5 days
- No
- No
- no
- No
- no
- No
- No
- Yes
- No
- No
- No
- No
- Hurricane Michael
- Hurricane (2 days)
- yes/one week no did not go to a shelter
- utility outage from Hurricane Michael, left for 3 days, stayed with relatives in another county
- No
- Have evacuated for hurricanes. I did not go to a shelter
- We voluntarily left for hurricanes until it was safe to return.
- No
- No
- No

Q8. Please rank how prepared you feel and your household are for natural disaster events likely to occur within your community. Rank on a scale of 1 to 5, with 5 representing the most prepared.
Question tossed out. Responses ranged from 1 to 5 as well as 1 to 100 leaving the results in question.

Q9. In what ways do you believe you are prepared for a natural disaster that may occur within your community? Please check all that apply.						
Answer Choices	Response Percent	Responses				
I have taken precautionary measures to protect my property though retrofits or when constructed	58.16%	57				
I have a preparedness kit containing basic supplies and materials for my family and myself	79.59%	78				
I have identified the location of the nearest severe weather shelter	48.98%	48				
I have a personal family emergency preparedness plan, and have discussed it with my family and others for whom I have responsibility	60.2%	59				
I am prepared to shelter in-place if that is the best available option	84.69%	83				

I have at least two methods for receiving emergency notifications and other critical information during severe weather or other potential emergency situations	75.51%	74				
I have insurance policies to cover losses from specific risks (e.g. flood insurance)	71.43%	70				
I have received emergency preparedness information from a government source (e.g., federal, state, or local emergency management)	74.49%	73				
I have used local news or other media to obtain information	89.8%	88				
I have received information from schools and other academic institutions	39.8%	39				
I have attended meetings that have dealt with disaster preparedness	35.71%	35				
Other (please specify)	3.06%	3				
	Answered	98				
	Skipped	17				
Q9 Other Responses:						
• I have multiple emergency prepared planes • A tornado siren would make Paxton safer. • I have planned evacuation procedures						

Q10. How do you receive your information concerning a disaster? Of the information sources below, please identify the top three (3) that are MOST EFFECTIVE in providing you with information to make your home safer and better able to withstand the impact of disaster events.						
Answer Choices	Response Percent	Responses				
County Website	72.45%	71				
Municipal Websites	25.51%	25				
Newspaper	18.37%	18				
Town/Village E-Mail	13.27%	13				
Police, Fire, EMS, 9-1-1	32.65%	32				
Telephone Book	1.02%	1				
Informational Brochures	3.06%	3				
Public Meetings, Workshops, Public Awareness Events	20.41%	20				
Schools	13.27%	13				

TV News	62.24%	61				
TV Advertising	7.14%	7				
Radio News	25.51%	25				
Radio Advertisements	3.06%	3				
Outdoor Advertisements	3.06%	3				
Internet	65.31%	64				
Social Media	57.14%	56				
Chamber of Commerce	6.12%	6				
Academic Institutions	2.04%	2				
Books	2.04%	2				
Public Library	2.04%	2				
Other (please specify)	11.22%	11				
	Answered	98				
	Skipped	17				
Q10 Other Responses Below						

- Facebook
- Government service agents
- Alert Walton
- Insurance company
- Sherriff's Facebook page and text alerts
- Disaster relief, FLaWARN
- text messages
- alert system via call, email, text
- Phone calls, Texts, Emails from Walton County
- NOAA, National Hurricane Center, DOH, CDC
- Power Company

Q11. To the best of your knowledge, is your property located in a designated floodplain? If you do not know, click here to find out.						
Answer Choices	Response Percent	Responses				
Yes	15.63%	15				
No	84.38%	81				
	Answered	96				
	Skipped	19				

Q12. Do you have flood insurance?

Answer Choices	Response Percent	Responses				
Yes	39.18%	38				
No	60.82%	59				
	Answered	97				
	Skipped	18				

Q13. If you do NOT have flood insurance, what is the primary reason?						
Answer Choices	Response Percent	Responses				
I don't need it/my property has never flooded	22.39%	15				
Don't need it/located on high ground	52.24%	35				
It is too expensive	7.46%	5				
Not familiar with it/don't know about it	0.0%	0				
Insurance company will not provide	2.99%	2				
I believe that my homeowners insurance will cover me	1.49%	1				
Other (please specify)	13.43%	9				
	Answered	67				
	Skipped	48				
Q13 Other Responses Below						

- Not the property owner
- have flood insurance
- I have it
- Renting home
- NA
- I have it
- I have flood insurance
- Condo Assn has flood insurance. Too expensive. I'm on 2nd floor and floodplain 5 hardly reaches our property. Could not make the click here website work to recheck that.
- NA

Q14. Do you or did you have problems getting homeowners/renters insurance due to risks from natural hazards?

Answer Choices	Response Percent	Responses				
Yes	12.5%	12				
No	87.5%	84				
	Answered	96				
	Skipped	19				

Q15. If you answered "Yes" to the previous question, please identify the natural hazard risk that caused you to have problems obtaining homeowners/renters insurance.	
Answered	18
Skipped	97
Q15 Responses Below	

- Older mobile home
- Hurricanes
- Hurricane area
- too expensive and too many restrictions on what i can have on my property
- Hurricane
- NA
- None
- need to have property survey inspection - cost
- N/A
- South Florida Hurricanes several years ago caused my insurance carrier to drop my insurance. I currently have a different home owner insurance.
- NA
- Hurricane
- hurricane - very expensive in FL
- Hurricane insurance is very tricky in Florida and some instances you have to carry a separate policy.
- Na
- Large oak trees on property caused insurance company to cancel policy and I could only get coverage through Citizens for years
- Hurricane
- NA

Q16. What areas in Walton County are most likely to flood? Please list street names and other specific identifiers, if possible.	
Answered	65
Skipped	50
Q16 Responses Below	

- I would check the county website that provides the map for this.
- South Walton, Chat Holley Rd. Also, Bob Sikes Rd. In N. Walton
- County highway 0605
- Co hwy 0605

- I don't know
- Lake defuniak Lakeyard
- Tropical Way due to poor drainage plan
- River areas and coastal areas
- Santa rosa beach
- Beach area
- Low areas along the coastal dune lakes, Roads along the Bay Bridge on 331, Areas that are close to the water on HWY 20, Areas close to the Choctahatchi river
- 30 & US 331at east Choctaw hatched bay, state hwy 20 along the bay & Chat Holley road
- Do not know
- Properties along creeks/riverine areas
- Not sure
- Driftwood Estates, areas near the bay and those south of the bay
- South Walton, along the bay, along the Rivers, neighborhoods what have poor drainage, road where the ditches have not been maintained
- Part of hwy 2 and other roads
- Don't know
- See the flood zone map. Kind of a silly question
- West Nursery Road, 393 North of 98, Seagrove/ Seaside areas of 30A, Dune Lakes area of 30A
- South and along Shoal River
- Creek crossings. Bear creek crossing on Corbin Gainey, Boy Scout Rd, Chesser Rd, Bob Sikes out to 285
- South of the bay, along waterways.
- Indian creek ranch road, mckinnon bridge road , shoal river at bridge on 1084 I think
- Low lying area and areas in close proximity to the bay and rivers
- Black creek
  Bruce
- Unknown
- Hwy 1087, Lake Road by Lake Jackson
- 30a
- South walton
- Bay Loop road
  Old Nursery road
- Coastal and Tidal areas are most likely then those properties adjacent to other bodies of water.
- Unknown
- North Santa Rosa Beach: Hogtown Bayou areas
- Don't know
- Areas along 30A and in the surrounding neighborhoods
- Seaward if the coastal construction control line and adjoining properties. Properties along choctahatchee river
- Freeport, choctaw beach,
- Several parts on co hwy 1087 is under water when we hae heavy rain.
- Coastal Areas, Bay areas, and river areas.
- Driftwood Estates
- Low areas south and north of 30A
- Beach front, non-X zoned properties
- Too many to list for the county, however in our area, near the end of Pine St, Cross Creek Subdivision, Industrial Park, Sunflower Ln
- Bay properties, some properties located directly on one of the Coastal Dune Lakes.
- Driftwood estates
- South and central walton county areas south of the bay
- Naturewalk
- South Walton - Bay area's,
  Choctawhatchee River and inlets, creeks, springs thereof.
- Alaqua
- Us98,cr30a
- Coastal areas and Bay front areas
- Black creek area
  Shoal river area
  Forest Shore Drive in Miramar
- 100 year flood plane designated by FEMA
- Property near water bodies or wetlands.
- Don't know
- 393
- South Walton, low lying areas, streets with drainage issues

- South of bridge
- South Walton and some spots in defuniak and Freeport.
- I don't know
- Along Bruce Creek, and coastal areas
- Hwy 20, hwy 331
- First

Q17. What types of projects do you believe Local, County, State, or Federal Government agencies could be doing to reduce the damage and disruption of disasters in Walton County? Select your top three choices.						
Answer Choices	Response Percent	Responses				
Retrofit and strengthen essential facilities such as police, schools, and hospitals	32.18%	28				
Retrofit infrastructure, such as elevating roadways and improving drainage systems	68.97%	60				
Work on improving the damage resistance of utilities (electricity, communications, water/wastewater facilities etc.)	77.01%	67				
Install or improve protective structures, such as floodwalls, levees, bulkheads, and firebreaks	12.64%	11				
Enhance stream maintenance programs/projects	13.79%	12				
Replace inadequate or vulnerable bridges and causeways	42.53%	37				
Strengthen codes, ordinances and plans to require higher hazard risk management standards and/or provide greater control over development in high hazard areas	29.89%	26				
Buy out flood prone properties and maintain as open space	18.39%	16				
Inform property owners of ways they can mitigate damage to their properties	36.78%	32				
Improve access to information about hazard risks and high-hazard areas	26.44%	23				
Assist vulnerable property owners with securing funding to mitigate their properties	20.69%	18				
Create a stream gage and weather monitoring program to provide more accurate data and warnings	17.24%	15				
Other (please specify)	8.05%	7				
	Answered	87				
	Skipped	28				
Q17 Other Responses Below						

- Improve siren warning systems - we found out via Facebook during Michael that there was a mandatory evacuation for Walton County.
- Institute a law that if a person buys or owns high risk property that it is their responsibility to fix weather related damage in timely manner and they cannot expect the county to provide assistance to their private property.
- Reduce the amount of over development that is just out of control
- Make improvement to cellular reception and WiFi in northern tier
- All traffic signals should be changed to mast type, eliminate cable hung traffic signals
- Create bridges on 30A over the dune lakes, such as Deer Lake
- Ensure that all citizens have access to reliable broadband internet.

Q18. Do you feel that your municipality is doing enough towards flood prevention and mitigation or other types of prevention/mitigation from hazards?						
Answer Choices	Response Percent	Responses				
Yes	60.98%	50				
No	35.37%	29				
Please provide details for your answer.		29				
	Answered	82				
	Skipped	33				
Q18 Responses Below						

- Bridges are older and could be damaged to storm events.
- We do not have enough information to provide an informed answer. Everything on 30A is pretty much a guess.
- Our municipality are allowing people to build or operate business in very high risk areas. Also very little is done to insure building codes are inforced and hazardous sites are fixed.
- Ensure new owners are aware of historical data. Require elevated structures in flood prone areas.
- We need to continue to retrofit older infrastructure
- Local area warnings on phone and yv
- Over development and poor code enforcement are huge issues on many fronts for Walton.
- It appears to be an ongoing process but action is slowly being taken.
- Building homes in South Walton is stressing the infrastructure. Too many people, not enough roadways and hurricane evacuations will be terrible. Also, all of the paving is causing neighborhoods to flood, natural landscape is lost.
- Lots of storm water management issues in our area
- No opinion
- Really unknown
- I really don't know enough to answer, but I don't know is not an option.
- I don't know what the county is doing.
- Unsure
- The county has taken many good and needed measures over the last few years, but I feel they should be working to develop a storm water utility. Asking individual homeowners to install storm water management systems on their property when the surrounding neighbors have not is not going to solve the problems that already exist.
- Can always do more
- Surprised by the sub companies doing the work without local workers, unidentifiable workers, unmarked vehicles, no notice of work being done or what is being done on the property.
- The drainage issue at Driftwood Estates needs to be resolved, it's been dragging on for at least 16 years and the commissioners refuse to resolve it.

- I'm not educated enough to know what is enough. I feel code enforcement is not strong enough to enforce codes we do have. I feel taxes should be raised for more community services. Then we could really get somewhere.
- One only needs to drive through the city of Freeport to understand the details.
- County continues to approve development of property without providing for the reduction in water retention.
- We can always do more, as time changes the demographics of this region and waterways change flow over the years. Also, roadways and drainage areas deteriorate and always need an upgrade to some structures over time. More land owners, property users, community and Public workers to work with the Municipalities and try to report things that need repair and not expect that someone will always notice large drains collapsing or backing up. Maybe more road and infrastructure inspectors, that can help out with the needs of infrastructure repair, as the community expects that someone in the County or Municipalities should just do their job and take care of it, the community should work as a whole to mitigate these issues.
- I am not sure of mitigation projects in my municipality.
- I FEEL OUR MUNICIPALITY WOULD HOLD ONTO MAKING MITIGATION DECISIONS UNTIL THE VERY LAST MINUTE TO MAKE A DOLLAR
- There are always improvements that can be made to further mitigate and/or prevent natural hazards.
- Defuniak city streets flood during even small storms, and the storm drains are rarely unclogged. The backup of water on the road can be dangerous to low-siting vehicles. Large oak trees are visibly dead or dying and need to be removed before they cause issues instead of piecemeal removal after sections of limbs fall and block roads or take out power lines.
- I believe the County is doing a great job; but, with the diversity of the geographic regions of the County there's additional opportunity to assist rural communities with infrastructure needs.
- County needs to work on utility susceptibility to damage from high winds - i.e. hurricanes.

Q19. If your property were located in a designated high-hazard area (for example, NFIP flood zone) or had received repeated damages from a natural disaster event, would you consider any of the following options? If your response is dependent on certain factors, such as the funding source, please indicate those factors in the following question.						
Answer Choices	Yes	No	Unsure	Total		
Buyout/Acquisition	39	9	35	83		
Relocation	41	14	28	83		
Elevation	44	9	28	81		
			Answered	85		
			Skipped	30		

Q20. If you have already had to spend money to mitigate your property, how much have you spent and on what measures?	
Answered	45
Skipped	70
Q20 Responses Below	

- NA
- N/A
- n/a
- $20,000

- n/a
- none
- $3500 for landscape improvements for wildfire mitigation to parameter of property and
- 15,000, repairing driveways and water drainage
- Building new house that meets hurricane building code
- $5000
- Zero
- unsure of cost still working on drainage
- 3000 to elevate pathways on the property and add rock to prevent erosion
- Brought in 11 trucks of fill dirt because new homes built behind us caused our property to flood.
- N/A
- Na
- 0
- Unsure
- N/a
- 0
- 16000
- Nothing extra
- N/A
- I am about to build a house and will have to spend a few thousand dollars to put it on pilings.
- 0
- no
- 0
- 0
- no
- 0
- $20,000, flood abatement
- N/A
- New Roof - Wind, water damage. $5,000.00
- NA
- N/A
- 500
- WE MOVED
- None
- $10,000 on tree removal; DIY-demolition of old covered structures that were in disrepair.
- na
- NA
- I spent additional money upfront with the construction of my home to help mitigate risks and sense have installed high quality surge protection to help further reduce the risk of damage to my applicances caused by lightning.
- Na
- $20,000
- 2,500 wind retrofit

Q21. Which (if any) incentives would motivate you to spend money on protecting your home from the possible impacts of a disaster? Such as lower interest rates, grant funding, waivers, etc.	
Answered	58
Skipped	57
Q21 Responses Below	

- Grant funding
- Lower property tax
- Grant funding
- Tax deduction
- Grant funding

- Grant funding and low interest rates for utility improvements, generator installs, w/s infrastructure protection/maintenance.
- Grant funding
- Not sure
- Notice to fix or vacate the premises
- Property tax relief
- Lower interest/insurance rates
- Grant funding, lower interest rates
- All of the above
- Grant funding and where road was fixed and causing water to run to my property
- Grants or property tax deductions
- Waivers grants interest free loans
- Grant funding
- Grant
- Any subsidies would be beneficial
- Grant funding
- I would think property tax breaks
- Grants
- Tax break, grant funding, low interest rate
- Grant funding, low interest loans
- Grants
- Maybe lower insurance rates or lowerdeductible
- Lower interest rates, tax credits, financial assistance with the cost
- Moving
- Grant funding for seawall/riprap
- I would like sexton road fixed so the water run off would stop eroding my yard
- Grant funding and waivers
- Grant funding
- Lower interest rates
- Waivers, lower interest rates, monetary assistance
- O
- Greater control of disaster insurance and lower cost for low income. I had flood insurance in California, and they wanted me to borrow $10,000 to do landscaping that I didn't need. I could have used help repaneling the living room after the flood but it was all or nothing at all, so I did it myself.
- Grant funding
- Grant funding and lower interest rates on my portion after grants
- Lower interest rates, grants
- Grants
- Grant funding
- Grant Funding, who wouldn't take advantage to protect your property.
- Grant funding
- Grant funding
- Lower interest rates, grant funding
- Grants
- Unsure
- Grant funding
- All of the above.
- I would pursue wind mitigation measures for roof, but only if there was some type of incentive besides a small reduction of my insurance premium. The reduction just is not worth the time and effort that wind mitigation measures would require.
- Don't know
- Na
- Grant funding
- Grant funding
- Any of those above
- Grant funding
- Grant funds
- Grant funds

Q22. Please list any additional types of projects you believe local, county, state or federal government agencies could be doing to reduce the damage and disruption in Walton County.	
Answered	53

Skipped	62
Q22 Responses Below	

- Keeping current data on flood areas
- Unknown
- Quicker road work completion
- Educate non-resident property owners
- Internet accessibility
- Don't know
- Use the county resources and labor to fix drainage issues
- Do not know
- Any infrastructure projects take a very long time to complete and cause a lot of disruption. A case in point is that the 331 Bridge was completed a year before the highway was open. Another disruption is the 30A bridge replacement projects - huge disruption and very slow progress.
- Property code inspectors and regulations
- Better mosquito control (mosquito borne disease prevention)
- Hazardous tree and structure removal/mitigation
- Have a real emergency plan to mitigate the Closure of rental properties and Increased testing options for outbreaks.
- Strengthen the internet and phone signal in the town of Defuniak Springs. They are horrendous! Dropped calls and lose of internet signals David
- Better land and natural resources Mgmt to slow development and maintain the beauty of the area as well as better manage the disaster risks.
- Improved street drainage or elevation
- Build an additional direct road between 30a and Hwy 98/
- Install better drainage systems and elevate roadways to prevent flooding
- Stop issuing building permits and study the effects on infrastructure, especially during tourist seasons.
- Larger medical facilities
- Na
- Under ground utilities
- Require cellular reception and wifi in northern part of county
- Frog ponds to control mosquitoes. Keep wetlands wet. Buy out flood zones and make them into wetland parks for educational use
- Education on how to proceed when traffic lights are flashing, when traffic lights are out. The average person has forgotten and the public needs to be reminded, particularly during the approach of a storm.
- Unsure
- Solar, underground electric
- The amount of time it takes to repair a bridge on 30A is ridiculous!
- Undergrounding utilities, developing a storm water utility and installing the related infrastructure
- Find out what is causing sludge in the creek on Hwy. 395 just north of Canal Street.
- ?
- Remove septic tanks systems near the Bay and Coastal areas.
- The county does a good job following existing regs and updating codes as needed
- Algae, red tide remediation; wildlife protection and rebuilding; additional water testing
- Maintain roads, drainage, fire lines
- 0
- Improving hazardous runoff drainage and getting rid of septic systems.
- Better storm water plan in south walton county. Improve aging infrastructure.
- Strengthen building codes & landscape/retention pond requirements.
- Disaster Preparation and processes for community management
- N/a
- More road lifting and drainage projects in the local communities on the North end of the county as well as the South end of the county.
- Underground utilities
- Stop allowing coastal building and rezoning
- Smart landuse, reduce and limit growth, and logical building codes
- Have an outside entity assess your mitigation strategies for viability
- More community outreach.
- Provide incentives for companies to harden utility infrastrucure to reduce use of overhead power lines

- Improve utility infrastructure
- Na
- Help more rural communities/rural residents with road issues.
- Na
- Provide county-wide broadband internet for rural areas to get information on storms
- Continue mitigation strategies to control Covid19. Thank you for closing rentals and beaches. The spring breakers would not have left if it were not for this.

Q23. Do you have any other comments, questions, or concerns regarding hazard mitigation in Walton County?	
Answered	43
Skipped	72
Q23 Responses Below	

- No
- No
- No
- No
- Utility infrastructure needs to be addressed. Ie internet/broadband
- No
- No
- Please communicate via emergeny signal on phones as we should not have to find out that we need to evacuate via Facebook.
- Walton county needs commissioner to over see this that reports to the county council members and or mayors.
- Thank you Walton County!
- No
- No
- No
- Na
- No
- No
- No
- No
- No
- Not that I can think of
- See #22
- No
- No
- Improving information channels
- No
- 0
- I approve of scheduled burns of the forest to control wildfire.
- It is an honor to live in a county that cares and has set parameters in place to protect its residents.
- No
- Walton County does a very good job of communicating with residents in the event of potential hazzards.
- No
- Things have definitely progressed over the years, but it will always be a work in progress due to lack of funds, workers and team players.
- No
- Not at this time
- No
- Hazards are only an inconvenience to a transient property owner. To a full time resident it can be life changing.
- None
- Nothing
- No
- Na
- Keep up the good work. I'm proud to call Walton County home.
- Na

- No

Q24. Please indicate your age range:						
Answer Choices	Response Percent	Responses				
18 to 30	1.11%	1				
31 to 40	10.0%	9				
41 to 50	24.44%	22				
51 to 60	36.67%	33				
60 or over	27.78%	25				
	Answered	90				
	Skipped	25				

Walton County Local Mitigation Strategy Update 2020

Appendix H: Vulnerability Assessment Summary

A standardized methodology, which allows for greater flexibility and subject matter expertise, was developed to compare different hazards' risk. This method prioritizes hazard risk based on a blend of quantitative factors extracted from NCEI and other data sources. Many of the hazards assessed in this HIRA did not have quantifiable probability or impact data, thus a semi-quantitative ranking system was used to compare all of the hazards of interest instead. These include:

- Likelihood of occurrence (probability);
- Likely range of impact (warning time); and
- Probable level of impact (maximum impact and deaths and injuries).

Each hazard was ranked from 1 (low), 2 (medium), and 3 (high) in four categories, which were then weighted and averaged together to develop a Composite Hazard Index. This index was then used to rank the hazards as high, medium, or low. Table .1 provides a summary of the categories used to rank the hazards and their weighted values for the Composite Hazard Index.

Table I.1. Hazard Evaluation Priority Categories and Scores

Score	Probability	Maximum Impact (Annual Damages)	Direct Deaths and Injuries	Warning Time
Weighting	1.25	1.25	1.0	0.5
1	*Low* - Infrequent occurrence with at least one NCEI documented event and annual probability less than 0.5	Less than $50,000	None recorded	Extended: Three days or more
2	*Medium*- Frequent occurrence with at least some NCEI documented events and annual probability between 1.0 and 0.5	Between $50,000 and $150,000	Any Injuries recorded but no deaths	Minimal: 1 - 2 days
3	*High* - Common events with annual probability greater than 1.0	Over $150,000	Any Death(s) recorded	No Notice: Less than 24 hours

In Table I-2 below, the composite hazard index for each of the hazards have been combined into a single table according to their ranking.

Table I-1: Combined Composite Hazards Rankings

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Highway Accidents	High	High	High	High	High
Tropical Cyclones*	High	High	High	Medium	High
Thunderstorms	High	Low	High	High	High
Epidemic / Pandemic	Medium	High	High	Medium	Medium-High
Avian Influenza*	Medium	High	High	Medium	Medium-High
Urban Fire	High	Medium	Medium	High	Medium-High
Storm Surge	High	Medium	Medium	High	Medium
Areal / Riverine Flooding	High	Medium	Medium	High	Medium
Tornadoes	Medium	High	Medium	High	Medium
Aviation Accidents	Medium	Medium	Medium	High	Medium
Wildfire	Medium	Medium	Low	High	Medium
Hazardous Materials Incidents	High	Medium	Low	High	Medium
Cyberterrorism	Medium	High	Low	High	Medium
Eastern Lubber Grasshopper	High	Medium	Low	Medium	Medium
Emerald Ash Borer	Medium	High	Low	Medium	Medium
Coastal Erosion	High	Low	Low	Low	Medium
Utility Outage	High	Low	Low	High	Medium
Chemical, Biological,	Low	Medium	High	High	Medium

Hazard Type	Probability	Maximum Impact	Probable Hazard Magnitude		
			Death and Injury	Warning Time	Composite Hazard Index
Radiological, Nuclear, Explosive					
Workplace and School Violence	Low	Low	High	High	Medium
Foot and Mouth Disease	Low	High	Low	Medium	Medium
Hail	Low	Medium	Low	High	Medium
Dam Failure	Low	Medium	Low	High	Low
Drought	Medium	Low	Low	High	Medium
Railroad Accidents	Low	Low	Medium	High	Medium
Extreme Temperatures**	Medium	Low	Low	Medium	Medium
Sinkhole	Medium	Low-Medium	Low-Medium	Low	Low-Medium
Tsunami	Low	High	High	High	Low
Earthquake	Low	Low	Low	High	Low
Freezing Rain	Low	Low	Low	Medium	Low
Snow Flurries	Low	Low	Low	Medium	Low
Sleet	Low	Low	Low	Medium	Low

Walton County Local Mitigation Strategy Update 2020

Appendix I: Local Mitigation Strategy Review Tool

STATE OF FLORIDA DIVISION OF EMERGENCY MANAGEMENT
2020 LOCAL HAZARD MITIGATION PLAN REVIEW TOOL

INTRODUCTION:

In 2011, FEMA introduced the "Plan Review Tool" as the new preferred method to review and approve LMS plans. The purpose of FEMA's new Plan Review Tool was to shorten the length of final plan review documents and to more closely align the requirements of the review tool with the Code of Federal Regulations. An unintended consequence of FEMA's Plan Review Tool is that information vital to plan approval can be easily overlooked. The Plan Review Tool also eliminates the space and requirement for plan reviewers to justify how each of the requirements are met.

In an effort to mitigate the possibility of skipping the various components of the requirements, FEMA will still require justification of how each of the elements are met, the FDEM's Mitigation Planning Unit created its own plan review crosswalk. This Microsoft Excel Workbook contains a number of Worksheets that are linked together, each which serves a very important purpose. This Excel Workbook will be used as the primary tool to review new and updated LMS plans in the State of Florida.

In addition to identifying the elements FEMA will be specifically looking for during plan reviews, this tool recognizes the 10-step Planning Process outlined under Section 510 of the Community Rating System (CRS) program. Completing these elements is optional. The primary purpose for including these 10-steps is to help communities see how closely the CRS and LMS steps align. By completing these steps and documenting the process, communities can come closer to obtaining the maximum number of CRS points for Floodplain Management Planning activities.

In March 2018, this FL Review Tool was updated to include the 2017 revision to Section 510 of the CRS program (see Element R7) as well as the inclusion of EMAP standards and planning-related CEMP requirements to each FEMA element, where applicable. It is not required to complete these additional sections, however, it is useful if your agency is interested in working toward EMAP accreditation, or ensuring the Planning portion of your CEMP is in alignment with your LMS.

Updated January 2020

KEY FOR WORKSHEET TABS AND ELEMENTS:

	Required
	Recommended / Optional
	Auto-populated. Do not attempt to edit.

INSTRUCTIONS:

When a county submits their LMS for approval, they will need to submit this document with the information populated in a few different places.

STEP 1:

Complete Columns C, *Jurisdiction Name* , and Column D, *Type of Jurisdiction* on the Jurisdiction Checklist tab.

STEP 2:

Populate the *Location in Plan* boxes on the **FL Crosswalk** tab.

WORKSHEETS EXPLAINED:

The **FL Crosswalk** tab contains the tool used by Florida to develop, update and review LMS plans. This tab also contains drop down boxes of CRS, EMAP and CEMP criteria, but

The **FEMA Review Tool** tab will be filled out automatically based on the information you entered into the **FL Crosswalk** tab. FDEM will submit this tab to FEMA with a final copy of the LMS plan.

The **Hazard Review Checklist** tab contains the tool that will be used by FDEM Plan Reviewers when evaluating the plan's hazard risk assessment information. This tool can be used as an aid when counties are updating/evaluating their LMS plans. Counties are encouraged to fill it out with the page locations of each requirement, but this step is

The **Project List Template** tab is an example of how counties can present their project list in their LMS. Using this tab as an example will help communities meet many of the mitigation strategy requirements. A county can fill out this table and include it in their LMS if they choose, but it is not required. FDEM will not use this tab during the review

The **CRS Crosswalk** tab has the crosswalk that is used for reviewing Section 510 plan components of the CRS. It is not required for the counties to fill out for their LMS review but page numbers will be automatically populated for CRS reviewers if counties fill out the yellow boxes in the **FL Crosswalk** tab.

2020 Florida Local Mitigation Strategy (LMS) Crosswalk

INSTRUCTIONS:
Enter the requested information in each field below. For each requirement, **please populate the "Location in Plan" cells with your plan page numbers.** The National Flood Insurance Program's (NFIP) Community Rating System (CRS) Crosswalk and EMAP standards have been integrated into the LMS Crosswalk to facilitate review of the planning requirements under this program. The CRS requirements can be hidden or shown by clicking the "+ / -" on the left hand side of the worksheet depending on whether or not communities choose to participate. If your community chooses to minimize the CRS requirements in this worksheet, please select the review tab, click on "Unprotect Sheet", click the "-" next to each CRS requirement, and click "Protect Sheet" to ensure the funtionality of the tool.

Jurisdiction:	**Title of Plan:**	**Date of Plan:**
Walton County	Local Mitigation Strategy Walton County 2020 Update	

Local Point of Contact: Jeff Goldberg	**Address:** 75 South Davis Lane Defuniak Springs, FL 32435
Title: Walton County EM Director	
Agency: Walton County Emergency Management	
Phone Number: (850) 892-8530	**Email:** Jeff@WaltonCountyEM.org

State Reviewer:	**Title:**	**Date:**
Date Received by FDEM:		
Date Plan Not Approved:		
Date Plan Approved Pending Adoption:		
Date Plan Approved:		

FEMA Reviewer:	**Title:**	**Date:**
Date Received by in FEMA Region IV:		
Date Plan Not Approved:		
Date Plan Approved Pending Adoption:		
Date Plan Approved:		

	Planning Process	Location in Plan	Met	Not Met
P1.	Does the LMS document the planning process, including how it was prepared (with a narrative description, meeting minutes, sign-in sheets, or another method)?	pg. 11-13, Appendix G		
P2.	Does the LMS list the jurisdiction(s) participating in the plan that are seeking approval?	Pg. 9		
P3.	Does the plan identify who represented each jurisdiction? (At a minimum, it must identify the jurisdiction represented and the person's position or title and agency within the jurisdiction.)	pg. 9-10		

Reviewer Comments:

Required Revisions:

	Planning Process (continued)	Location in Plan	Met	Not Met
P4.	Does the LMS document an opportunity for neighboring communities, local, and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development, as well as other interested parties to be involved in the planning process?	pg. 10-11		
P5.	Does the plan identify how the stakeholders were invited to participate in the process?	pg. 9-11		
P6.	Does the LMS document how the public was involved in the planning process during the drafting stage?	pg. 11, Appendix G		

Reviewer Comments:

Required Revisions:

	Planning Process (continued)	Location in Plan	Met	Not Met
P7.	Does the LMS describe the review and incorporation of existing plans, studies, reports, and technical information?	pg. 11		

Reviewer Comments:

Required Revisions:

	Hazard Risk and Vulnerability Assessment	Location in Plan	Met	Not Met
R1.	Does the Plan include a ***general description*** of all natural hazards that can affect each jurisdiction?	25, 36-37, 41-42, 47, 56, 63-64, 79-81, 91-93, 109, 122-125, 131, 138-141, 149, 154-156, 162-163		
R2.	Does the Plan provide rationale for the omission of any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?	pg 17-19		

Reviewer Comments:

Required Revisions:

	Hazard Risk and Vulnerability Assessment (cont)	Location in Plan	Met	Not Met
R3.	Does the Plan include a description of the ***location*** for all natural hazards that can affect each jurisdiction?	26-27, 37, 42-43, 47-51, 56-59, 64- 70, 81-84, 93-100, 109-116, 125-127, 131-133, 141-143, 149-151, 156-157, 163		
	d. The assessment describes areas within the floodplain			

Reviewer Comments:

Required Revisions:

Hazard Risk and Vulnerability Assessment (cont)		Location in Plan	Met	Not Met
R4.	Does the Plan include a description of the ***extent*** for all natural hazards that can affect each jurisdiction?	28-33, 37-38, 43, 47-51, 56-59, 64-70, 81-84, 93-100, 109-116, 125-127, 131-133, 141-143, 149-151, 156-157, 163		
Reviewer Comments:				
Required Revisions:				

Hazard Risk and Vulnerability Assessment (cont)		Location in Plan	Met	Not Met
R5.	Does the Plan include information on ***previous occurrences*** of hazard events for each jurisdiction?	33, 38-39, 43-44, 52, 59-60, 70-74, 84-88, 100-105, 117-118, 127-129, 134-136, 143-145, 151-152, 158-159, 163		
Reviewer Comments:				
Required Revisions:				

Hazard Risk and Vulnerability Assessment (cont)		Location in Plan	Met	Not Met
R6.	Does the Plan include information on the ***probability*** of future hazard events for each jurisdiction?	33, 39, 44-47, 53, 60-61, 75, 89, 105, 119, 129, 136, 146, 152, 159, 163		
Reviewer Comments:				
Required Revisions:				

Hazard Risk and Vulnerability Assessment (cont)		Location in Plan	Met	Not Met
R7.	Is there a description of each hazard's ***impacts*** on each jurisdiction (what happens to structures, infrastructure, people, environment, etc.)? Does this also include a list of critical facilities to remain open during times of a disaster?	34-35, 40, 45-47, 53-55, 61-62, 75-78, 89, 106-108, 119-121, 129-133, 136-137, 147- 148, 153, 159-161, 163-164		

Reviewer Comments:

Required Revisions:

Hazard Risk and Vulnerability Assessment (cont)		Location in Plan	Met	Not Met
R8.	Is there a description of each identified hazard's ***overall vulnerability*** (structures, systems, populations or other community assets defined by the community that are identified as being susceptible to damage and loss from hazard events) for each jurisdiction?	33-35, 40, 45-47, 53-55, 61-62, 89-90, 106-108, 119-121, 129-130, 136-137, 147-148, 153, 159-161, 163-164		

Reviewer Comments:

Required Revisions:

Hazard Risk and Vulnerability Assessment (cont)		Location in Plan	Met	Not Met
R9.	Does the Plan describe the type (residential, commercial, institutional, etc.) and number of FEMA repetitive loss properties within each jurisdiction?	77		

Reviewer Comments:

Required Revisions:

	Mitigation Strategy	Location in Plan	Met	Not Met
S1.	Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards?	165-166		

Reviewer Comments:

Required Revisions:

	Mitigation Strategy (continued)	Location in Plan	Met	Not Met
S2.	Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs?	166, Appendix A: Walton, Appendix B: DeFuniak Springs, Appendix C: Freeport, Appendix D: Paxton		

Reviewer Comments:

Required Revisions:

	Mitigation Strategy (continued)	Location in Plan	Met	Not Met
S3.	Does the Plan address whether or not each jurisdiction participates in the National Flood Insurance Program (NFIP) and how they will continue to comply with NFIP requirements?	167-168		

Reviewer Comments:

Required Revisions:

	Mitigation Strategy (continued)	Location in Plan	Met	Not Met
S4.	Does the Plan identify and analyze a comprehensive range (different alternatives) of specific mitigation actions and projects to reduce the impacts from hazards?	169-182		

Reviewer Comments:

Required Revisions:

	Mitigation Strategy (continued)	Location in Plan	Met	Not Met
S5.	Does the Plan identify mitigation actions for every hazard posing a threat to each participating jurisdiction?	169-182		

Reviewer Comments:

Required Revisions:

	Mitigation Strategy (continued)	Location in Plan	Met	Not Met
S6.	Do the identified mitigation actions and projects have an emphasis on ***new and existing*** buildings and infrastructure?	169-182		
S7.	Does the Plan explain how the mitigation actions and projects will be prioritized (including cost benefit review)?	169-182		
S8.	Does the Plan identify the position, office, department, or agency responsible for implementing and administering the action/project, estimated cost, potential funding sources and expected timeframes for completion?	169-182		

Reviewer Comments:

Required Revisions:

	Mitigation Strategy (continued)	Location in Plan	Met	Not Met
S9.	Does the LMS identify the local planning mechanisms where hazard mitigation information and/or actions may be incorporated?	186-187		
S10.	Does the plan describe each community's process to integrate the data, information, and hazard mitigation goals and actions into other planning mechanisms?	186-187		
S11.	The updated plan must explain how the jurisdiction(s) incorporated the mitigation plan, when appropriate, into other planning mechanisms as a demonstration of progress in local hazard mitigation efforts.	186-187		

Reviewer Comments:

Required Revisions:

	Plan Evaluation and Maintenance	Location in Plan	Met	Not Met
M1.	Was the plan revised to reflect changes in development?	Appendix E		
M2.	Was the plan revised to reflect progress in local mitigation efforts? (Were projects completed, deleted or deferred and why if they were deleted or deferred?)	169-182		
M3.	Was the plan revised to reflect changes in priorities since the plan was previously approved?	18, 183-187		

Reviewer Comments:

Required Revisions:

Plan Evaluation and Maintenance (continued)		Location in Plan	Met	Not Met
M4.	Does the plan identify how, when, and by whom the plan will be monitored (how will implementation be tracked) over time?	189		
M5.	Does the plan identify how, when, and by whom the plan will be evaluated (assessing the effectiveness of the plan at achieving stated purpose and goals) over time?	189		
M6.	Does the plan identify how, when, and by whom the plan will be updated during the 5-year cycle?	189		

Reviewer Comments:

Required Revisions:

Plan Evaluation and Maintenance (continued)		Location in Plan	Met	Not Met
M7.	Is there discussion of how the community(ies) will continue public participation in the plan maintenance process?	187		

Reviewer Comments:

Required Revisions:

Plan Adoption		Location in Plan	Met	Not Met
A1.	Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval?	Will be located in Appendix I		
A2.	For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption?	Will be located in Appendix I		

Reviewer Comments:

Required Revisions:

MULTI-JURISDICTION SUMMARY SHEET

INSTRUCTIONS: For multi-jurisdictional plans, a Multi-jurisdiction Summary Spreadsheet may be completed by listing each participating jurisdiction, which required Elements for each jurisdiction were 'Met' or 'Not Met,' and when the adoption resolutions were received. This Summary Sheet does not imply that a mini-plan be developed for each jurisdiction; instead **simply fill in the names and type of each jurisdiction (columns C and D)** participating in the Plan.

MULTI-JURISDICTIONAL SUMMARY SHEET

#	Jurisdiction Name	Type of Jurisdiction (school board, non-profit, special district, city, town, etc.)	Requirements Met (Y/N)				
			A. Planning Process	B. Hazard Identification & Risk Assessment	C. Mitigation Strategy	D. Plan Review, Evaluation & Implementation	E. Plan Adoption
1	Walton County	Unincorporated					
2	DeFuniak Springs	City					
3	Freeport	City					
4	Paxton	City					
5							
6							
7							
8							
9							
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29							

This Hazard Review Checklist is an optional tab. The state reviewers will fill this out on your behalf.

HAZARD REVIEW CHECKLIST

Plan Title:	Local Mitigation Strategy Walton County 2020 Update

Plan Date:	1/0/1900

Hazard Identified	General Description of Hazard	Location	Previous (& Updated) Historical Occurrences	Impacts	Probability	Extent	Overall Summary of Vulnerability
Dam Failure							
Epidemic / Pandemic							
Disease Outbreak							
Drought							
Coastal Erosion							
Flood							
Geological							
Severe Weather							
Wildfire + Urban Fire							
Winter Storm							
HazMat Incidents							
Transportation Incidents							
Utility Outages							
Terrorism							
Workplace/ School Violence							

Jurisdictional Risk Assessment

PROJECT LIST TEMPLATE

**Red column headings indicate fields necessary to meet FEMA requirements.*

Prioritized Project List												
Priority rank/ score	Name & Description of Project	Jurisdiction (Location of Project)	Agency Responsible for Implementation	Jurisdictions Directly Benefitting from Project	Hazards Mitigated	Mitigation Goals Achieved	Potential Funding Source(s)	Match (if applicable)	Estimated Costs	New, Deferred, Completed or Deleted	If Deleted or Deferred, Why?	Timeframe for Completion

LOCAL MITIGATION PLAN REVIEW TOOL

The Local Mitigation Plan Review Tool demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Check list provides a summary of FEMA's evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan's strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional work sheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this Local Mitigation Plan Review Guide when completing the Local Mitigation Plan Review Tool.

Jurisdiction: Walton County	**Title of Plan:** Local Mitigation Strategy Walton	**Date of Plan:** 1/0/1900
Local Point of Contact: Jeff Goldberg	**Address:** 75 South Davis Lane Defuniak Springs, FL 32435 0 0 0	
Title: Walton County EM Director		
Agency: Walton County Emergency Management		
Phone Number: (850) 892-8530	**E-Mail:** Jeff@WaltonCountyEM.org	

State Reviewer: 0	**Title:** 0	**Date:** 1/0/1900
Date Received by FDEM	1/0/1900	
Plan Not Approved	1/0/1900	
Plan Approvable Pending Adoption	1/0/1900	
Plan Approved	1/0/1900	

FEMA Reviewer: 0	**Title:** 0	**Date:** 1/0/1900
Date Received in FEMA Region IV	1/0/1900	
Plan Not Approved	1/0/1900	
Plan Approvable Pending Adoption	1/0/1900	
Plan Approved	1/0/1900	

SECTION 1:
REGULATION CHECKLIST

INSTRUCTIONS: The Regulation Checklist must be completed by FEMA. The purpose of the Checklist is to identify the location of relevant or applicable content in the Plan by Element/sub-element and to determine if each requirement has been 'Met' or 'Not Met.' The 'Required Revisions' summary at the bottom of each Element must be completed by FEMA to provide a clear explanation of the revisions that are required for plan approval. Required revisions must be explained for each plan sub-element that is 'Not Met.' Sub-elements should be referenced in each summary by using the appropriate numbers (A1, B3, etc.), where applicable. Requirements for each Element and sub-element are described in detail in this Plan Review Guide in Section 4, Regulation Checklist.

1. REGULATION CHECKLIST Regulation (44CFR 201.6 Local Mitigation Plans)	**Location in Plan (section and/or page number)**	**Met**	**Not Met**
ELEMENT A. PLANNING PROCESS			
A1. Does the Plan document the planning process, including how it was prepared and who was involved in the process for each jurisdiction? (Requirement §201.6(c)(1))	ppendix G, Pg. 9, pg. 9-1		
A2. Does the Plan document an opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, agencies that have the authority to regulate development as well as other interests to be involved in the planning process? (Requirement §201.6(b)(2))	pg. 9-11		
A3. Does the Plan document how the public was involved in the planning process during the drafting stage? (Requirement §201.6(b)(1))	pg. 11, Appendix G		
A4. Does the Plan describe the review and incorporation of existing plans, studies, reports, and technical information? (Requirement §201.6(b)(3))	pg. 11		
A5. Is there discussion of how the community(ies) will continue public participation in the plan maintenance process? (Requirement §201.6(c)(4)(iii))	187		
A6. Is there a description of the method and schedule for keeping the plan current (monitoring, evaluating and updating the mitigation plan within a 5-year cycle)? (Requirement §201.6(c)(4)(i))	189, 189, 189		
ELEMENT A: REQUIRED REVISIONS			

1. REGULATION CHECKLIST Regulation (44CFR 201.6 Local Mitigation Plans)	**Location in Plan (section and/or page number)**	**Met**	**Not Met**
ELEMENT B. HAZARD IDENTIFICATION AND RISK ASSESSMENT			
B1. Does the Plan include a description of the type, location, and extent of all natural hazards that can affect each jurisdiction(s)? (Requirement §201.6(c)(2)(i))	25, 36-37, 41-42, 47, 56, 63-64, 79-81, 91-93, 109, 122-125,		
B2. Does the Plan include information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction? (Requirement §201.6(c)(2)(i))	33, 38-39, 43-44, 52, 59-60, 70-74, 84-88, 100-105, 117-118, 127-129, 134-136,		
B3. Is there a description of each identified hazard's impact on the community as well as an overall summary of the community's vulnerability for each jurisdiction? (Requirement §201.6(c)(2)(ii))	34-35, 40, 45-47, 53-55, 61-62, 75-78, 89, 106-108, 119-121, 129-133, 136-137,		
B4. Does the Plan address NFIP insured structures within the jurisdiction that have been repetitively damaged by floods? (Requirement §201.6(c)(2)(ii))	77		
ELEMENT B: REQUIRED REVISIONS			

1. REGULATION CHECKLIST Regulation (44CFR 201.6 Local Mitigation Plans)	Location in Plan (section and/or page number)	Met	Not Met
ELEMENT C. MITIGATION STRATEGY			
C1. Does the plan document each jurisdiction's existing authorities, policies, programs and resources and its ability to expand on and improve these existing policies and programs? (Requirement §201.6(c)(3))	166, Appendix A: Walton, Appendix B: DeFuniak Springs, Appendix C: Freeport,		
C2. Does the Plan address each jurisdiction's participation in the NFIP and continued compliance with NFIP requirements, as appropriate? (Requirement §201.6(c)(3)(ii))	167-168		
C3. Does the Plan include goals to reduce/avoid long-term vulnerabilities to the identified hazards? (Requirement §201.6(c)(3)(i))	165-166		
C4. Does the Plan identify and analyze a comprehensive range of specific mitigation actions and projects for each jurisdiction being considered to reduce the effects of hazards, with emphasis on new and existing buildings and infrastructure? (Requirement §201.6(c)(3)(ii))	169-182, 169-182, 169-182		
C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction? (Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))	169-182, 169-182		
C6. Does the Plan describe a process by which local governments will integrate the requirements of the mitigation plan into other planning mechanisms, such as comprehensive or capital improvement plans, when appropriate? (Requirement §201.6(c)(4)(ii))	186-187, 186-187, 186-187		
ELEMENT C: REQUIRED REVISIONS			

1. REGULATION CHECKLIST **Regulation** (44CFR 201.6 Local Mitigation Plans)	**Location in Plan** (section and/or page	**Met**	**Not Met**
ELEMENT D. PLAN REVIEW, EVALUATION, AND IMPLEMENTATION (applicable to plan updates only)			
D1. Was the plan revised to reflect changes in development? (Requirement §201.6(d)(3))	Appendix E		
D2. Was the plan revised to reflect progress in local mitigation efforts? (Requirement §201.6(d)(3))	169-182		
D3. Was the plan revised to reflect changes in priorities? (Requirement §201.6(d)(3))	18, 183-187		
ELEMENT D: REQUIRED REVISIONS			

ELEMENT E. PLAN ADOPTION			
E1. Does the Plan include documentation that the plan has been formally adopted by the governing body of the jurisdiction requesting approval? (Requirement §201.6(c)(5))	Will be located in Appendix I		
E2. For multi-jurisdictional plans, has each jurisdiction requesting approval of the plan documented formal plan adoption? (Requirement §201.6(c)(5))	Will be located in Appendix I		
ELEMENT E: REQUIRED REVISIONS			
Required Revisions:			

ELEMENT F. ADDITIONAL STATE REQUIREMENTS			
F1.			
F2.			
ELEMENT F: REQUIRED REVISIONS			

SECTION 2:
PLAN ASSESSMENT

INSTRUCTIONS: The purpose of the Plan Assessment is to offer the local community more comprehensive feedback to the community on the quality and utility of the plan in a narrative format. The audience for the Plan Assessment is not only the plan developer/local community planner, but also elected officials, local departments and agencies, and others involved in implementing the Local Mitigation Plan. The Plan Assessment must be completed by FEMA. The Assessment is an opportunity for FEMA to provide feedback and information to the community on: 1) suggested improvements to the Plan; 2) specific sections in the Plan where the community has gone above and beyond minimum requirements; 3) recommendations for plan implementation; and 4) ongoing partnership(s) and information on other FEMA programs, specifically RiskMAP and Hazard Mitigation Assistance programs. The Plan Assessment is divided into two sections:

1. Plan Strengths and Opportunities for Improvement
2. Resources for Implementing Your Approved Plan

Plan Strengths and Opportunities for Improvement is organized according to the plan Elements listed in the The Plan Assessment must not reiterate the required revisions from the Regulation Checklist or be regulatory in ***Resources for Implementing Your Approved Plan*** provides a place for FEMA to offer information, data sources

A. Plan Strengths and Opportunities for Improvement

This section provides a discussion of the strengths of the plan document and identifies areas where these could be

Element A: Planning Process

Strengths:

Opportunities for Improvement:

Element B: Hazard Identification & Risk Assessment

Strengths:

Opportunities for Improvement:

Element C: Mitigation Strategy

Strengths:

Opportunities for Improvement:

Element D: Plan Update, Evaluation, and Implementation (Plan Updates Only)

Strengths:

Opportunities for Improvement:

B. Resources for Implementing Your Approved Plan

510 FLOODPLAIN MANAGEMENT PLANNING CHECKLIST

Community: _____

Name of Plan: _____

511.a Floodplain Management Planning (FMP)

Credit Points: *Enter the section or page number of the plan where each credited item can be found.*

CRS Step	Section/Page	Item Score	Step Total
1. Organize to prepare the plan. (max:15)			
a. Involvement of Office Responsible for Community Planning (4)			
b. Planning committee of department staff (9)			
c. Process formally created by the community's governing board (2)			**0**
2. Involve the public. (max: 120)			
a. Planning process conducted through a planning committee (60)			
b. Public meetings held at the beginning of the planning process (15)			
c. Public meeting held on draft plan (15)			
d. Other public information activities to encourage input (Up to 30)			**0**
3. Coordinate with other agencies. (max: 35)			
a. Review of existing studies and plans [REQUIRED] (5)			
b. Coordinating with communities and other agencies (Up to 30)			**0**
4. Assess the hazard. (max: 35)			
a. Plan includes an assessment of the flood hazard [REQUIRED] with:			
(1) A map of known flood hazards (5)			
(2) A description of known flood hazard (5)			
(3) A discussion of past floods (5)			
b. Plan includes assessment of less frequent floods (10)			
c. Plan includes assessment of areas likely to flood (5)			
d. The plan describes other natural hazards [REQUIRED FOR DMA] (5)			**0**

5. Assess the problem. (max: 52)

a. Summary of each hazard identified in the hazard assessment and their community impact [REQUIRED] (2)			
b. Description of the impact of the hazards on: (max: 25)			
(1) Life, safety, health, procedures for warning and evacuation (5)			
(2) Public health including health hazards to floodwaters/mold (5)			
(3) Critical facilities and infrastructure (5)			
(4) The community's economy and tax base (5)			
(5) Number and type of affected buildings (5)			
c. Review of all damaged buildings/flood insurance claims (5)			
d. Areas the provide natural floodplain functions (5)			
e. Development/redevelopment/Population Trends (7)			
f. Impact of future flooding conditions outline in Step 4, item c (8)			**0**

6. Set goals. [REQUIRED] (2)			**0**

7. Review possible activities. (max: 35)

a. Preventive activities (5)			
b. Floodplain Management Regulatory/current & future conditions (5)			
c. Property protection activities (5)			
d. Natural resource protection activities (5)			
e. Emergency services activities (5)			
f. Structural projects (5)			
g. Public information activities (5)			**0**

8. Draft an action plan. (max: 60)

a. Actions must be prioritized [REQUIRED]			
(1) Recommendations for activities from two of the six categories (10)			
(2) Recommendations for activities from three of the six categories (20)			
(3) Recommendations for activities from four of the six categories (30)			
(4) Recommendations for activities from five of the six categories (45)			
b. Post-disaster mitigation policies and procedures (10)			
c. Action items for mitigation of other hazards (5)			**0**

9. Adopt the plan. (2)			**0**

10. Implement, evaluate and revise. (max: 26)

a. Procedures to monitor and recommend revisions [REQUIRED] (2)			
b. Same planning committee or successor committee that qualifies under Section 511.a.2 (a) does the evaluation (24)			**0**

Maximum Credit for 510 FMP = 382

Plan Total:	**0**

Walton County Local Mitigation Strategy Update 2020

Appendix J: Adoption Resolutions

(To be added)