



FLOOD MITIGATION PLAN

Unincorporated Franklin County, Florida

Month 2016



Table of Contents

Section 1: Introduction and Background.....	2
Section 2: Planning Process.. ..	3
Section 3: Risk Assessment.....	12
Section 4: Mitigation Strategy	34
Section 5: Plan Maintenance	58
Appendix A:.....	Adoption Resolution
Appendix B:.....	Planning Process Documentation
Appendix C:.....	Public Outreach/Education
Appendix D:.....	Repetitive Loss Areas
Appendix E:.....	Franklin County Local Mitigation Strategy
Appendix F:	Annual Evaluation Reports
Appendix G:.....	Technical Data

Tables

Table 1: Members of the Franklin County Flood Mitigation Plan Task Force	7
Table 2 – Values of Structures in the Floodplain Area in Franklin County	24
Table 3: Total Just Value of the Real Property and Tangible Personal Property in Franklin County (2015)	37
Table 4: Summary of HAZUS results, Category 5 Hurricane	39
Table 5 - Values of Structures in the Coastal Flood Hazard Area in Franklin County, Category 5 (in millions)	39
Table 6: Franklin County Population Growth/Loss from 2000 to 2010	44
Table 7: Flood Mitigation Action Plan	64

Figures

- Figure A: Map of Franklin County
- Figure B: Franklin County Land Use Map
- Figure C: Hydrography Map of Franklin County
- Figure D: Franklin County Surge Zones by Storm Category
- Figure E: Locations of Repetitive Loss Properties and the SFHA
- Figure F: Franklin County's Flood Zone Area Map
- Figure G: Storm Surge Zones in Franklin County
- Figure H: Historical Hurricane Tracks for Franklin County, FL from 1851 to 2006
- Figure I: Critically eroded shoreline within Franklin County.
- Figure J: Sea Level Rise Projections from 1990 to 2100

Flood Mitigation Assistance Plan

Unincorporated Franklin County, Florida

Section 1: Introduction and Background

1.1 NFIP-CRS Certification Requirements

This document was prepared to satisfy the certification requirements of the *National Flood Insurance Program Community Rating System Coordinator's Manual (April 06, 2016 Draft Edition)*. Franklin County participates in the National Flood Insurance Program (NFIP) sponsored by the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA), in order to qualify residents for flood insurance. The County also voluntarily participates in the Community Rating System (CRS), whereby residents qualify for discounted premiums. The County has been an active participant in the CRS program since 1993 (last rating was 7 in October 2016).

A flood mitigation plan is required by all CRS communities that have ten or more repetitive loss properties that have not received mitigation. Unincorporated Franklin County has a total of 91 repetitive loss properties on record with FEMA. A repetitive loss property is one for which two or more claims of \$1,000 or more were paid by the NFIP within any given 10-year period since 1978. Of those 91 properties, 52 were mitigated in recent years via relocation or acquisition/demolition. In some cases, the mitigation projects were accomplished using a 75% federal match from Hazard Mitigation Assistance Program (HMA) funds. These federal grant funding opportunities would not have been available without a multi-hazard mitigation plan that was formally adopted by the community.

Maintaining and periodically re-evaluating flood mitigation plans every five years is required to continue participation in good standing with the CRS certification, and to maintain discounted rates on flood insurance policies. In 2016, the Franklin County Flood Mitigation Plan (the Plan) was developed to maintain the County's CRS certification and improve its rating.

1.2 Purpose

The general purpose of the Plan is to protect people and property from potential flood damages while maintaining good standing with FEMA's NFIP and CRS programs. This Plan also serves as a guide to the community to reduce the number repetitive loss properties through acquisitions, as well as by improving the County's canal and storm drainage system. Franklin County plans to accomplish these goals by continuing to be aggressive with mitigation and structural projects, coupled with governmental ordinances and regulations designed to provide planning guidance for future development and construction. The County also intends to expand current outreach programs, to maintain the flood mitigation program via assistance through federal grant programs, and to continue with capital improvement drainage projects to alleviate structural flooding within the County's flood-prone communities. Finally, the Plan is designed to educate the residents of Franklin County about the hazards of flooding, to suggest loss reduction measures, and to raise awareness of the beneficial functions of the floodplain.

Section 2: Planning Process

The Plan was developed and organized following the ten step process under Section 510, "Floodplain Management Planning", *National Flood Insurance Program Community Rating System Coordinator's Manual (April 6, 2016 Draft Edition)*. The ten step planning process includes:

1. Organize;
2. Involve the public;
3. Coordinate;
4. Assess the hazard;
5. Assess the problem;
6. Set goals;
7. Review possible activities;
8. Draft an action plan;
9. Adopt the plan; and
10. Implement, evaluate, and revise the plan.

For *Section 2: Planning Process*, the plan development process was completed by organizing numerous committee meetings and community outreach efforts, and by a thorough review of newly-available information and data. This included:

- Online access to the Draft Plan for review and comment from the public and stakeholders,
- A public review of the Draft Plan development prior to adoption,
- An evaluation of new studies, reports, and technical information, and
- A review of the community's needs, goals, and plans for the area that have been recently published.

To develop *Section 3: Risk Assessment*, the hazard and problem assessments were reviewed. This included utilizing floodplain and other hazard maps, describing annexations of flood prone areas, discussing additional repetitive loss properties, describing completed mitigation projects and increased development in the floodplain or watershed, and discussing new flood control projects, lack of maintenance of flood control projects, historical hazard events, and any other changes in flooding conditions or development.

Next, *Section 4: Mitigation Strategy's* update process included a review of the goals and development of an action plan, to account for appropriate changes and provide the status of current mitigation projects.

Finally, *Step 5: Plan Maintenance* established a process for the maintenance and update of the plan and documented that the Plan was adopted by the Franklin County Board of Commissioners.

2.1 Committee Organization, Structure, and Participation

The Franklin County Emergency Management Department (FCEMD) is responsible for coordinating mitigation activities with the cities of Apalachicola and Carrabelle, in addition to

the unincorporated areas of Franklin County. The FCEMD is responsible for maintenance of the Local Mitigation Strategy and provides oversight for all mitigation activities for the county including notification of all mitigation assessment operations, coordination of all activities associated with identifying potential mitigation projects and initiatives, coordination of the application process for mitigation grants and administration of all mitigation grants.

The FCEMD works closely with the Floodplain Administrator/CRS Program Coordinator for Franklin County in addition to other county departments and stakeholders, and directs both the development and implementation of the Flood Mitigation Plan. In addition to FCEMD's primary role in the Planning Committee for the LMS, the Department also provides leadership and oversight for the Flood Mitigation Assistance Planning Committee (the Committee), and ensures adequate representation of technical and programmatic experts regarding floodplain management in Franklin County.

The Planning Committee (the Committee) includes not only personnel from Franklin Emergency Management Agency (FCEM), but includes representation from the Apalachicola National Estuarine Research Reserve, the Department of Public Works, the Franklin County Road Department, the Planning and Building Department, and the Florida Forestry Service. In addition to these formal departments and agencies, stakeholders from the community were also involved in both the formal committee makeup and the overall Plan development process.

The Franklin County Planning and Building Department is the land use and comprehensive planning Department for the county. They are actively involved in the development and maintenance of the Plan's development. This is demonstrated by attendance at meetings and their participation in the review of draft sections of the Plan development (See Appendix B for documentation of attendance via meeting sign in sheets, agendas and meeting minutes.)

The following table identifies the members of the 2016 Plan development Planning Committee, and provides their titles and agency/organizations represented. This table includes County staff members, outside agency stakeholders, and stakeholders from the general public.

Table 1: Members of the Franklin County Flood Mitigation Plan Task Force

Members of the Franklin County Flood Mitigation Plan Task Force	
Name	Agency/Title
Pam Brownell	County Emergency Management / Director
Jennifer Daniels	County Emergency Management
Tress Dameron	County Emergency Management
Anita Grove	Apalachicola National Estuarine Research Reserve/Coastal Program Coordinator
Lamar Hardy	Franklin County Road Department
Ken Anderson	LMS Members/County Solid Waste/Area 3 Resident
Mason Beam	LMS Members/Fire Dept./Area 4 Resident
Amy Kelly	County Flood Plain Manager/CRS Program Coordinator
Thomas Sadler	County Public Works
Dan Tonsmeire	Apalachicola River Keepers
Mark Cureton	Franklin County Planner
Clint Davis	FL Division of Forestry
Sharon Sleeper	Citizen of Franklin County
Mike Rundell	NW FL Water Management District

The Planning Committee was led by the consultant hired to facilitate the planning and development of the Flood Mitigation Assistance Plan and acts as a single body and all discussions, decisions, and activities are held, determined, or reviewed by the entire Committee. All individuals attending the Planning Meetings -whether agency staff or public stakeholder -have the opportunity to participate in all Committee activities, decisions, and discussions, and all members of the Committee have a voice in the process.

Three formal committee update meetings were held in 2016, in order to coordinate and draft this Plan development; many more individual meetings were held between staff members, the Coastal Program Coordinator, the CRS Program Manager, the County Planner and the public stakeholders. At each meeting, the Committee discussed at least one step in the planning process. The minutes from the formal meetings held during the Plan development process are located in Appendix B, as are the sign in sheets verifying each member's attendance and the number of meetings conducted.

2.2 Public Involvement

A critical step in the plan development process was to involve the public. The public was invited to all committee meetings through public announcements on outdoor bulletin boards, the Franklin County Emergency Management website, Facebook, Twitter, public notices, radio announcements, and direct invitation letters to stakeholders. (Refer to Appendix B for documentation of public announcements, invitation letters to committee meetings, and meeting documentation, including sign-in sheets for members of the general public and other stakeholders.)

Additional public information activities implemented to explain the planning process and encourage public input to the planning committee included a consistently updated project website, collection of public questionnaires (flood surveys) and additional public outreach efforts. The project website explained the planning process, posted times and locations for committee meetings, meeting agenda, status reports, and a draft copy of the Plan development for review.

The County hired a consultant to facilitate the planning process and author the Plan in concert with the EM Department, Committee/Workgroup, stakeholders, and the general public.

One of the public outreach efforts for promoting disaster preparedness and flood awareness was through the Disaster Expo hosted by the Franklin County Emergency Management Department. The County hosted its annual Disaster Expo on Saturday, June 4, 2016 at the Franklin County Emergency Operations Center at 28 Airport Road, Apalachicola, Florida from 10am-3pm. This event was advertised through the county's website, social media such as Facebook and Twitter, and through announcements on Oyster Radio. The goal of the expo was to promote disaster preparedness and educate expo participants on floodplain issues, flood insurance, and the planning process for the Flood Mitigation Assistance Plan. Expo participants inquired about their location within the floodplain and their associated flood risk, and also participated in by completing flood surveys to assist the county in identifying any additional flood vulnerabilities that could be mitigated.

Approximately 23 citizens and interested parties either submitted "hard copies" of responses to the office or completed the surveys online. Survey participants were encouraged to submit information concerning natural hazards and specific flood or drainage related problems that they have experienced and to offer possible solutions to these problems. Survey respondents were generally interested in knowing if their property was located within the floodplain, the flood zone in which they were located, and being involved in options that mitigated their future risk. The surveys were useful in determining not only people's knowledge of the floodplain and flood issues within the county, but it also allowed residents to identify other areas of vulnerability not already addressed in the Local Mitigation Strategy. (A copy of the flood survey and a representative sampling of the responses is included in Appendix B. To review all of the questionnaire responses, please contact the Franklin County Department of Emergency Management.

During the 2016 update process, there were several additional public outreach efforts completed to explain the plan development process and to seek public input on the process. The consultant hired to write the Flood Mitigation Plan also engaged in public outreach efforts by attending the City Commission Meeting in Apalachicola, Florida on Tuesday, July 5, 2016 to explain the planning process and seek feedback from the commission members on how to more effectively engage the public. The consultant provided hard copies of the flood surveys for meeting participants to complete and encouraged the commission members to post the online survey to their government websites to foster survey participation among the residents. (Refer to Appendix B for documentation of public outreach efforts.)

The most up-to-date version of the Draft Plan development was placed on the Franklin County website for review and comment (www.Franklincountyflorida.com). Website users were requested to review the Draft Plan development, and were encouraged to offer input to the planning committee. A link was provided to allow website users to respond directly from the site. In addition to this outreach method, the county sought to promote awareness about the draft plan and seek public input through advertising on the Oyster Radio Station, 100.5 FM, notifications through social media (Facebook), and an email distribution to the business sector. The Draft Plan development remained on the website for approximately two weeks during the month of October 2016 to ensure that the public had an opportunity to perform a review of the Draft Plan development, and to offer suggestions, comments and recommendations prior to the final Plan development submittal to the Board of Commissioners

for adoption. A copy of the web page announcing the posting of Franklin County's Flood Mitigation Plan is included in Appendix B.

The first public meeting was held on April 16, 2015 at the Franklin County EOC at 28 Airport Road, Apalachicola, Florida. During this meeting, the meeting participants were given an overview of the Flood Mitigation planning process and the FMP committee composition was established based on representative stakeholders throughout the County. Committee members were tasked with identifying and addressing flood prone issues in the county, including options for mitigating these vulnerabilities.

A second public meeting was held on Wednesday, June 8, 2016 at the Apalachicola National Estuarine Research Reserve in Eastpoint located at 108 Island Drive, Eastpoint, Florida (Room C). On Wednesday, June 01, 2016, announcements regarding the meeting were published on the County's website, the County's Facebook and Twitter account, in various public locations, in post office boxes and bulletin boards, through email notifications, at County Commissioner's meetings, and by airing a public service announcement on Oyster Radio (Channel 100.5 FM), a local radio station out of Eastpoint, Florida. Previously contacted members of the general public, LMS Task Force Committee members, outside agency and community organizations were invited to participate in the meeting to discuss the planning process, status of flood related projects on the Local Mitigation Strategy project list, and vulnerabilities within the county that could be mitigated through mitigation funding, conducting buyouts in repetitive loss areas, and through changes to floodplain management ordinances, permitting requirements, and code enforcement (documentation including the agenda, meeting minutes, and sign in sheet is included in Appendix B).

The third public meeting was held on Thursday, July 7, 2016 at the Apalachicola National Estuarine Research Reserve in Eastpoint located at 108 Island Drive, Eastpoint, Florida (Room C). This meeting included representation from the Planning Committee, in addition to the public. The focus of this meeting was to address additional elements of the planning process, status updates to flood related projects on the Local Mitigation Strategy project list, and discussion on repetitive loss properties within the county and ways to mitigate those structures to reduce future loss (documentation including the agenda, meeting minutes, and sign in sheet is included in Appendix B).

After review and update by the Planning Committee meeting, the draft Flood Mitigation Plan was disseminated to the public for two weeks to afford them the opportunity to perform a review of the Draft Plan development and offer suggestions, comments and recommendations prior to the Draft Plan development's submittal to the Board of Commissioners for adoption. Appendix B includes a copy of the announcement published on the website along with documentation verifying both the meeting and the attendees.

2.3 Incorporation of Existing Documents

The Plan was developed with the support and cooperation of the Franklin County Emergency Management Plan, Franklin County Comprehensive Plan (2015), City of Apalachicola Comprehensive Plan, City of Carrabelle Code of Ordinances, 2015 Local Mitigation Strategy, Franklin County Flood Hazard Ordinance, County Zoning Ordinance, County Coastal Building Code, Critical Shorelines Ordinance, Hazard Analysis Maps, Critical Facility Inventory, Standard

Operating Procedures, Local Multi-Hazard Plans, Future Land Use Maps, Franklin County Code of Ordinances, Apalachicola National Estuarine Research Reserve Management Plan, Apalachicola and Carrabelle Stormwater Plans, and Apalachee Regional Hurricane Evacuation Study prepared in 2014. During the 2016 Plan development process, a formal review of all relevant new studies, reports and technical information was performed and relevant information contained therein was incorporated into the Plan development.

The incorporation of the EOP's topics relative to specific flood protection needs include evacuation routes within and outside of the county, traffic control points, public information procedures, as well as flood and hurricane information. A review of the historical data and project information published in the *FEMA Flood Insurance Study, Unincorporated Areas of Franklin County, Florida*, dated February 5, 2014 was used in the development of this Plan development.

During the plan development process, the 2015 Local Mitigation Strategy identified a list of local vulnerabilities and impacts to all hazards were considered and incorporated (where applicable), particularly as they related to assessing hazards and problems. Additional information from the Northwest Florida Water Management District Portal, the State of Florida Enhanced Hazard Mitigation Plan, and the National Oceanic and Atmospheric Administration (NOAA), to begin addressing sea-level rise and coastal erosion issues within the Plan development.

2.4 Agency and Organizational Coordination

The request and selection for outside agency participation were based upon property protection, public safety responsibilities, and jurisdictional boundary of adjacent municipalities. The organizations and agencies were contacted to see if any of Franklin County's proposed projects or policies would impact any projects the municipalities were considering or proposing, to ensure that all flood mitigation efforts were coordinated and in concert. Appendix B contains documentation of invitations, contacts, and meetings. Coordination documentation is in the form of emails, formal letters, phone calls, meeting notes. The following agencies were contacted and requested to participate in the development of this Flood Mitigation Plan:

- Alligator Point Water Resource District;
- Apalachee Regional Planning Council (LEPC)
- Apalachicola Bay Chamber of Commerce;
- Apalachicola National Estuarine Research Reserve (ANERR);
- Apalachicola River Keepers
- Apalachicola Streets Department;
- Apalachicola Water and Sewer Department;
- Carrabelle Chamber of Commerce;
- Carrabelle Water and Sewer Department;
- Collins Realty;
- Conservation Corporation
- Dewberry/Preble Rish- Engineering Contractor for Franklin County
- Eastpoint Water and Sewer System;
- Florida Department of Agriculture and Consumer Services (DOACS);
- Florida Department of Economic Opportunity (DEO);

- Florida Department of Environmental Protection (DEP);
- Florida Department of Transportation (DOT);
- Florida Division of Emergency Management (FDEM);
- Florida Fish and Wildlife Commission (FWC);
- Florida Forestry Service (FFS);
- Forgotten Coast Homebuilders Association;
- Franklin County Administrative Services Department;
- Franklin County Clerk of Courts;
- Franklin County Extension Office;
- Franklin County Health Department;
- Franklin County Mosquito Control Office;
- Franklin County Parks and Recreation;
- Franklin County Planning & Building Department;
- Franklin County Property Appraiser's Office;
- Franklin County Road Department;
- Franklin County Sheriff's Office;
- Franklin County Solid Waste Department;
- Franklin County Supervisor of Elections Office;
- Franklin County Tax Collector's Office;
- Franklin County Tourist Development Council;
- Franklin UF IFAS Extension Program;
- Gulf of Mexico Program
- Northwest Florida Water Management District
- Realtor Association of Franklin & Gulf Counties
- Restore America's Estuaries
- St. George Island Water Management Services;
- State of Florida NFIP Coordinator;
- The municipalities within Franklin County, consisting of Apalachicola and Carrabelle, and unincorporated areas of Franklin County include Lanark Village, Bald Point, Alligator Point and St. Theresa, in addition to the census designated areas of Eastpoint and St. George Island
- Weeks Bay Foundation
- Weems Memorial Hospital.

Each of the agencies, organizations, and local governments were provided an explanation of the Flood Mitigation Plan development process, as well as provided a copy of the Draft Plan for review. Written comments, suggestions, and recommendations were requested within 10 business days of receiving the Draft Plan. Comments were requested to be submitted via e-mail, fax, or letter.

Section 3: Risk Assessment

3.1 Hazard Assessment

Franklin County consists of 656,640 acres, or approximately 1,026 square miles, of which 535 square miles is land and 492 square miles is water. Franklin County is a coastal county, which borders the Gulf of Mexico, and is located in the Florida Panhandle. The Gulf of Mexico coastline accounts for approximately 53 miles of Franklin County's eastern border.

Franklin County is subject to a variety of man-made and natural hazards (Refer to Appendix E for a complete description of the location, severity, history, and future probability of events for all identified natural and man-made hazards that affect Franklin County). However, the major focus of the Flood Mitigation Plan is on naturally occurring hazards that include rainwater flooding, coastal storms (including tropical depressions, tropical storms, and hurricanes), storm surge, riverine flooding, sea-level rise, and coastal erosion.

The City of Apalachicola, the county seat, sits at the mouth of the Apalachicola River on Apalachicola Bay. The City of Carrabelle is located within the mouth of the Carrabelle River on St. George Sound. The county has three barrier islands. Dog Island, St. George Island and St. Vincent's Island, although Alligator Point can also be described as a coastal barrier. The terrain of the county is generally low and swampy. The northern areas of the county have elevations ranging from 20-30 feet NGVD that slope gently to poorly drained areas of elevations less than 10 feet NGVD. The coast has a dune ridge with elevations of 20 feet or more NGVD. Most development is located within one mile of the coast. Almost the entire interior of the county is wilderness. The Apalachicola National Forest is located in the northwest section of the county. Tate's Hell Swamp is located in the center of the county north of US Highway 98 between Carrabelle and Eastpoint. St. Joe Land Company, formerly St. Joe Paper Company, has sold the majority of their large tracts along the Ochlockonee River and the area west of the Apalachicola. Some of these properties are up for sale again and are pending potential purchase by the State of Florida.

Figure 1 (below) displays a vicinity map of Franklin County. Franklin County is situated on a low coastal plain, with much of its area consisting of tidal marshes and swamps. The northern areas of the county have elevations ranging from 20-30 feet NGVD that slope gently to poorly drained areas of elevations less than 10 feet NGVD. The coast has a dune ridge with elevations of 20 feet or more NGVD. Franklin County has vast areas of wetlands and natural storm water detention features.

A barrier island system is positioned nearly parallel to the mainland and is composed of four barrier islands: Dog Island, St George Island, Cape St George Island, and St Vincent Island. This barrier system acts as a first line of defense against storm surge from hurricanes and tropical storms. Although the coastal barriers provide some protection to coastal mainland development, a severe storm will overtop the barriers. Most development has occurred on coastal ridges that are above the level of the 100 year flood in Apalachicola, Carrabelle, St. George Island and among various locations along the coast.

As a result of the differing topographical characteristics of the county, the impacts from a natural disaster (such as a hurricane) are likely to differ throughout the county. Whereas areas in the southern part of the county may have greater flooding, areas at higher elevations may receive more wind-related damage.

Approximately 86% of the county is undeveloped and much of the land away from the coast is managed by the state or federal government. Large areas of public lands, including the Apalachicola National Forest and Tate's Hell State Forest, limit the amount of private land and potential growth. There has been a significant shift from agricultural lands to conservation lands since 1989, mostly due to the large land purchases by the State of Florida as part of its efforts to protect Apalachicola Bay. The Tate's Hell State Forest, created in 1994, is the second largest in the State of Florida at 202,437 acres, and accounts for most of this change. Much of the agriculture and conservation land is also wetlands. Refer to **Figure 2** for Franklin County's land use map, which identifies locations of open water and tidal marsh areas.

The northern and interior portion of the county remains mostly uninhabited. The most common land use throughout the county is forest agriculture, accounting for 8% of the county's landmass. Significant portions of these forest lands are under state or federal ownership. Less than six (6) percent of the county is included in residential, commercial and industrial land uses. Most development is located along the coast in Apalachicola, Alligator Point, Carrabelle, Eastpoint, Lanark Village and St. George Island. Based on the county's anticipated growth rate of 0.8% over the next five years, coupled with specifics on the county's population data, the projected land use for the county will remain predominantly conservation and forested area.

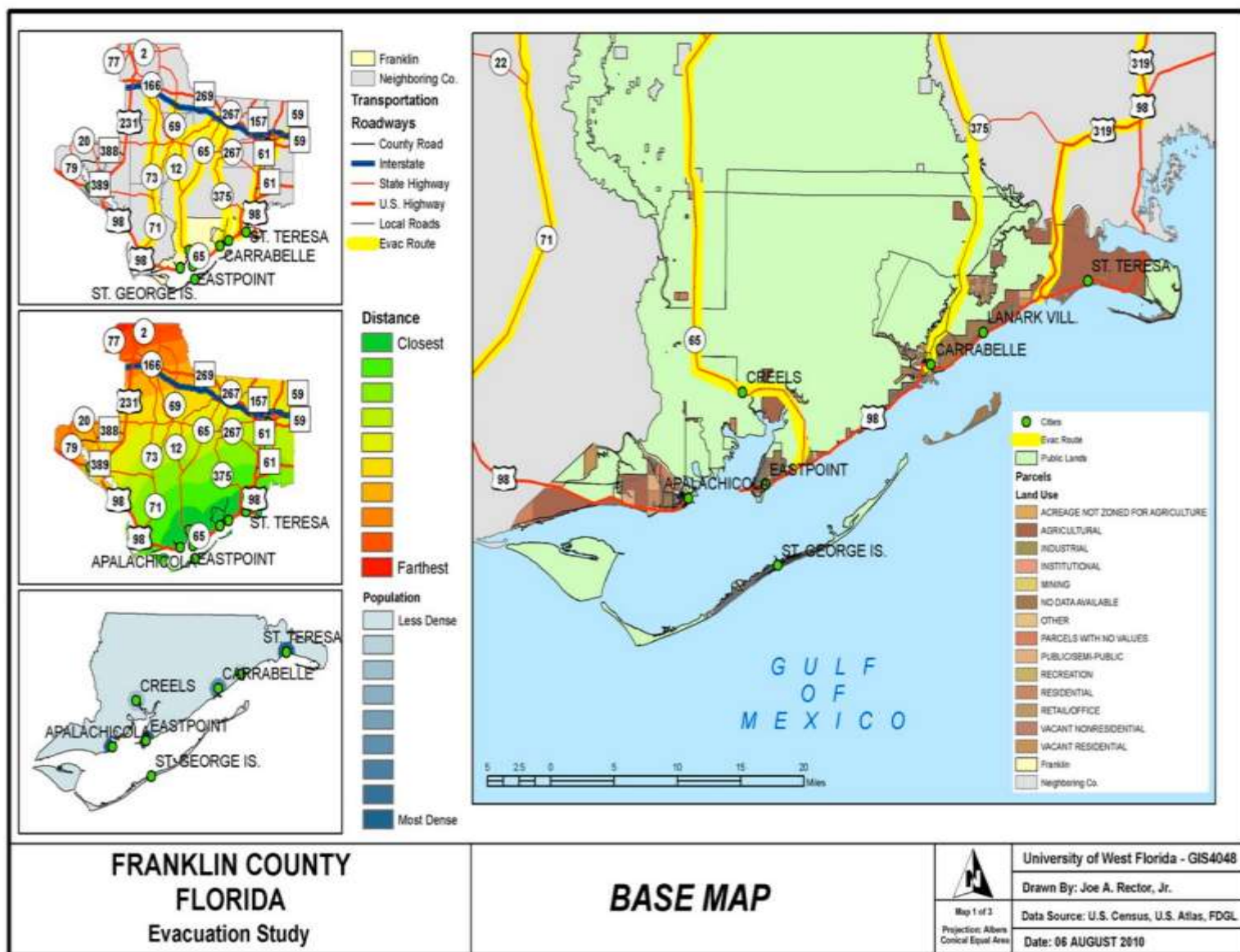
According to the Natural Resource Conservation Service (NRCS), there are no dams inventoried for Franklin County. In addition, there are no levees in the USACE National Levee Database. Therefore, these less frequent flood hazards were not assessed in this Plan development, as there is no risk to Franklin County from these hazards. Although there are no existing or proposed flood protection measures designed and constructed specifically for flood protection, the U.S. Army Corps of Engineers (USACE) designed and built the Jim Woodruff Lock and Dam, which is located north of Franklin County on the Apalachicola River at the Florida/Georgia state line and approximately 108 miles north of the mouth. Construction of this dam was initiated in September 1947, and the impounding of water occurred in May 1954. Although the Jim Woodruff Dam was primarily designed for navigation purposes, it does offer a limited amount of flood regulation of the Apalachicola River. Because of the dam's geographical location, it provides minimal flood protection for Franklin County. The Jackson Bluff Dam on Lake Talquin (this dam is not located within Franklin County) is a hydroelectric installation operated by the Florida Power Corporation. This project was completed in 1930, and offers no appreciable flood control for properties located downstream.

Figure A: Map of Franklin County



Source: Franklin County Local Mitigation Strategy, 2015.

Figure B: Franklin County Land Use Map



Source: Franklin County Comprehensive Plan.

History and General Sources of Flooding

Based on frequency, floods are the most destructive category of natural hazards in the United States. Historically, flooding in Franklin County has stemmed primarily from two sources: periods of intense rainfall causing ponding and sheet runoff in the low, poorly-drained areas and coastal flooding associated with hurricanes and tropical storms.

Apalachicola is located on the west side of the mouth of the Apalachicola River, the end point of the extensive Apalachicola-Chattahoochee-Flint river system. Elevations range from about 5 feet

NGVD to about 20 feet NGVD. These elevations place the city above mostly low and swampy areas that exist to the north and east. Development along the Apalachicola River and Bay is primarily commercial and dominated by facilities for commercial fisheries. The rest of the city is primarily developed with single-family residences. Essentially all of the areas within the present corporate limits that are not prone to flooding have been developed. Apalachicola is located in the coastal floodplain; thus the major source of flooding is from coastal surge resulting from hurricanes and tropical storms. The barrier island system of St. Vincent and St. George islands afford some protection, however, the elevations of these islands allow overtopping by severe storm surges. In addition, the large size of Apalachicola Bay permits wind to set up the water and waves.

A secondary source of flooding is the Apalachicola River, an extensive river system encompassing a drainage area of over 19,000 square miles. Riverine flooding affects low lying northern areas of the city and along Scipio Creek. The lower Water Street lift station (designed to lift sewer flows to an elevation sufficient to join a gravity-feed line to the city sewer system) is subject to flood damage. However, most severe river flooding occurs outside of the city limits because of the city's elevation. Some ponding or shallow flooding can occur from heavy rainfall in the west central flatwoods area.

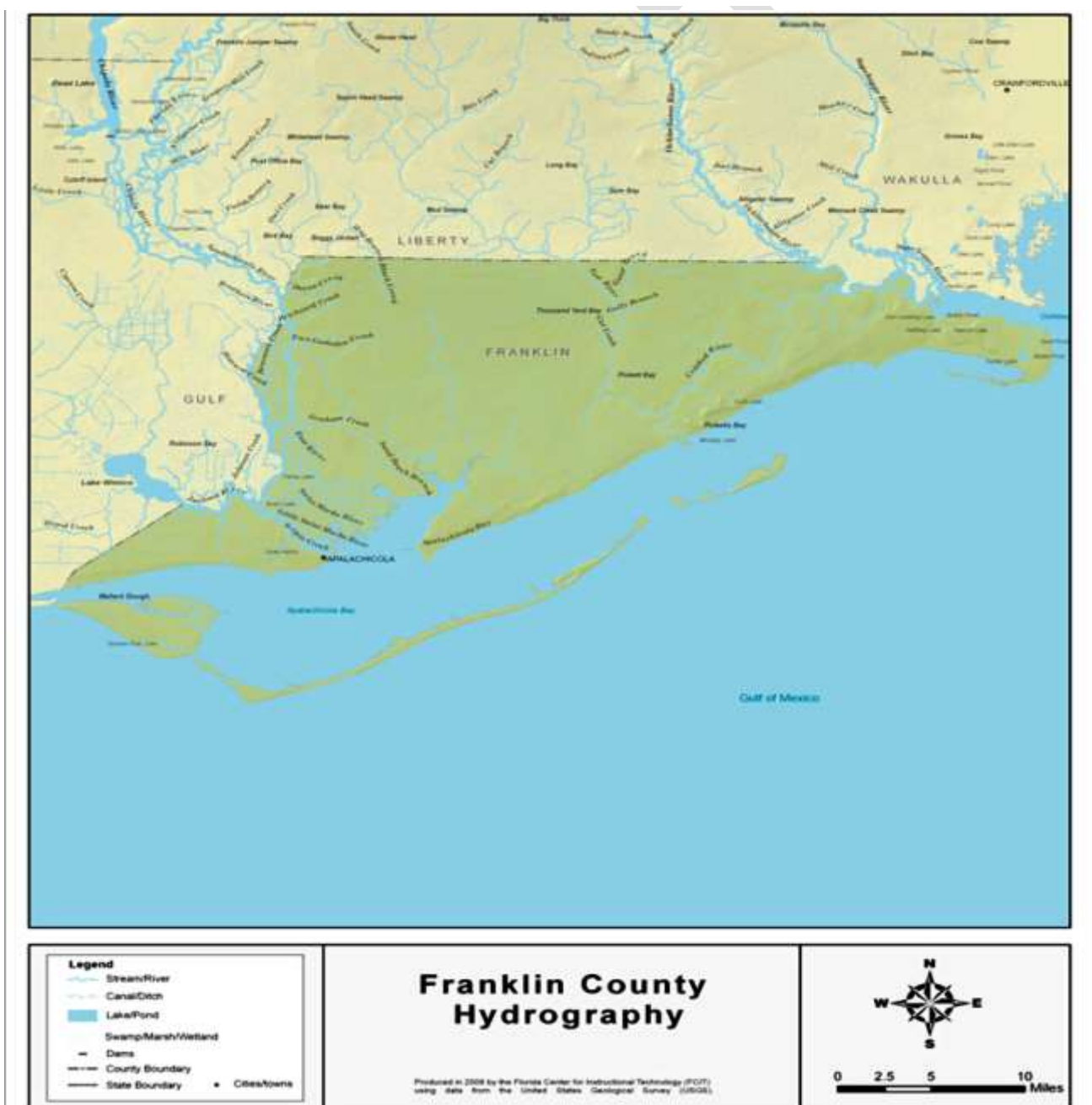
The floodplains of the Apalachicola River, the New River, the Crooked River, the Carrabelle River, and the Ochlockonee River are also subject to flooding during high river stages. The floodplains of the Apalachicola River are subject to riverine flooding during periods of heavy rainfall. The Apalachicola River is part of an extensive river system whose drainage area extends northward about five hundred miles to a point near the northern Georgia border, and encompasses an area over 19,000 square miles. Other rivers in the county have smaller drainage areas and are therefore less significant sources of flooding. Other rivers in the county have smaller drainage areas and are therefore less significant sources of flooding. These include the New and Crooked Rivers, which flow through the central portion of the county and join to form the Carrabelle River, which then discharges into St. George Sound at Carrabelle. The Ochlockonee River forms a portion of the northeast county boundary and empties into the Gulf of Mexico through the Ochlockonee Bay. Low-lying, poorly drained areas of the county are also subject to rainfall ponding. See the hydrography map in **Figure C**.

Flooding is also a problem on Seventh Street between Avenues C and D as well as on a portion of the property owned by St. Patrick's Catholic Church on Sixth Street. This is consistent with the Flood Insurance Rate Map for the Apalachicola, which shows the 100-year flood elevations in this area ranging between 9-11 feet. A FEMA flood insurance study of Carrabelle describes the city as situated on a coastal rise that is high in elevation compared with the surrounding low swampy area to the north and west. The terrain is characterized by small hills and depressions and is rolling in nature. The major source of flooding is from surge resulting from hurricanes and tropical storms. A secondary source of flooding is the Carrabelle River, which is formed by the junction of the Crooked River and New River at the north boundary of the city. Although the majority of the developed areas are above the levels of flooding, the city is subject to being isolated during severe storm periods because of the low surrounding areas. The inland areas are susceptible to shallow flooding as a result of rainfall. The western part of the city is subject to flooding from the Carrabelle River. The coastal areas including the lower reaches of the Carrabelle River and Timber

Island are subject to flooding by the Gulf of Mexico via St. George Sound. The barrier islands, St. George and Dog Island offer some protection, but during large hurricane events portions of these islands would be overtopped.

The area most susceptible to damage is the shoreline area south of State Road 30-A just east of Carrabelle harbor. This area is subject to wave damage during storm activity. All the roadways leading from Carrabelle were flooded during Hurricane Agnes and Hurricane Opal and Tropical Strom Dennis, including State Road 67 which floods at the bridge over Crooked River as it heads to the north away from the coast. Some minor flooding occurs on Tallahassee Street at Avenue F associated with stormwater from the Carrabelle City Complex (F/K/A Carrabelle High School) that drains to a slough running to the bay, but which backs-up during severe rain events.

Figure C: Hydrography Map of Franklin County



Flooding patterns for the county can be observed in the following series of maps in **Figure D**. The flood analysis is separated into the two main sources: coastal flooding caused by tropical storms / hurricanes and riverine flooding (Source: [Floridadisaster.org/public mapping](http://Floridadisaster.org/public%20mapping)).

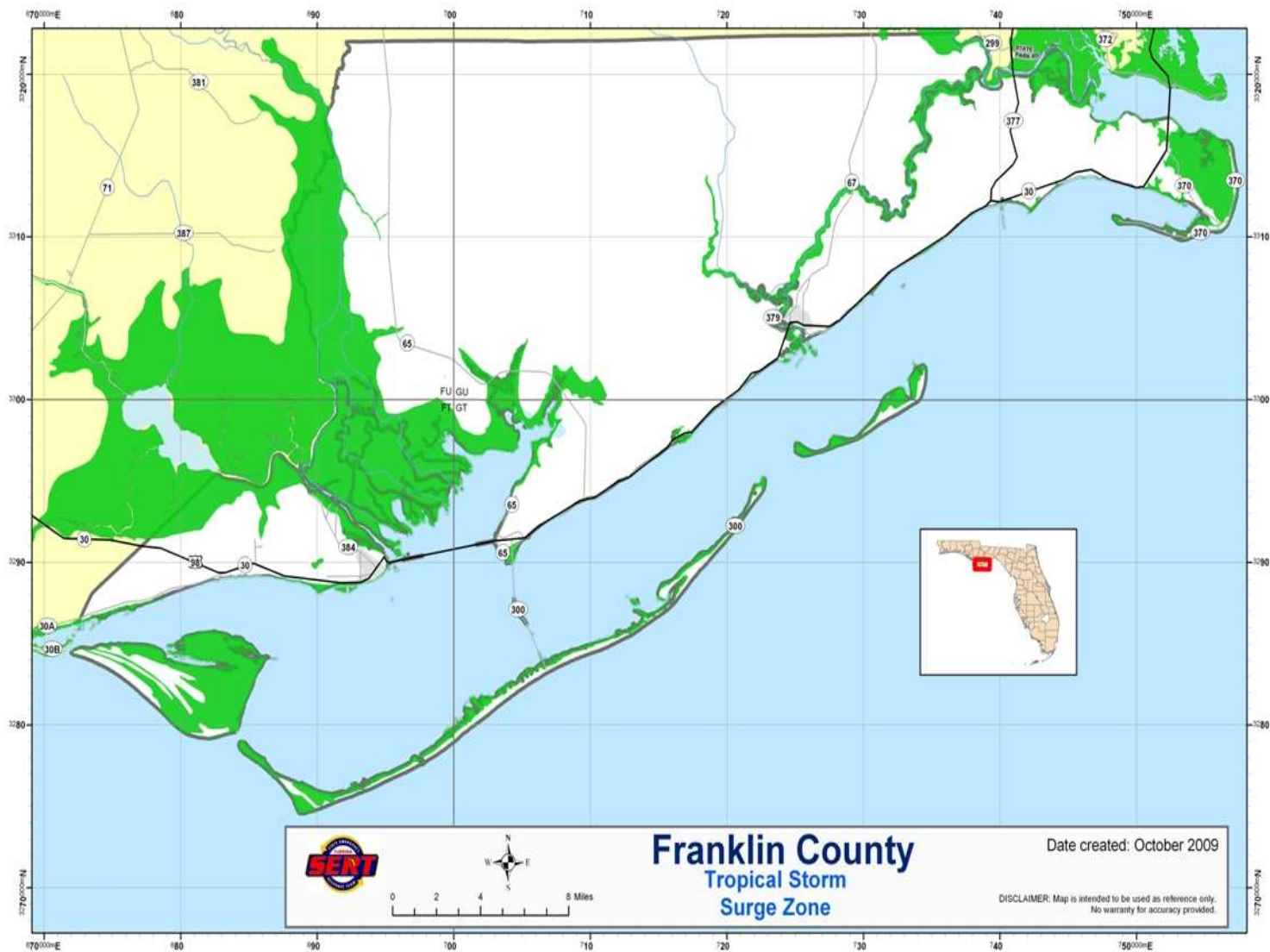
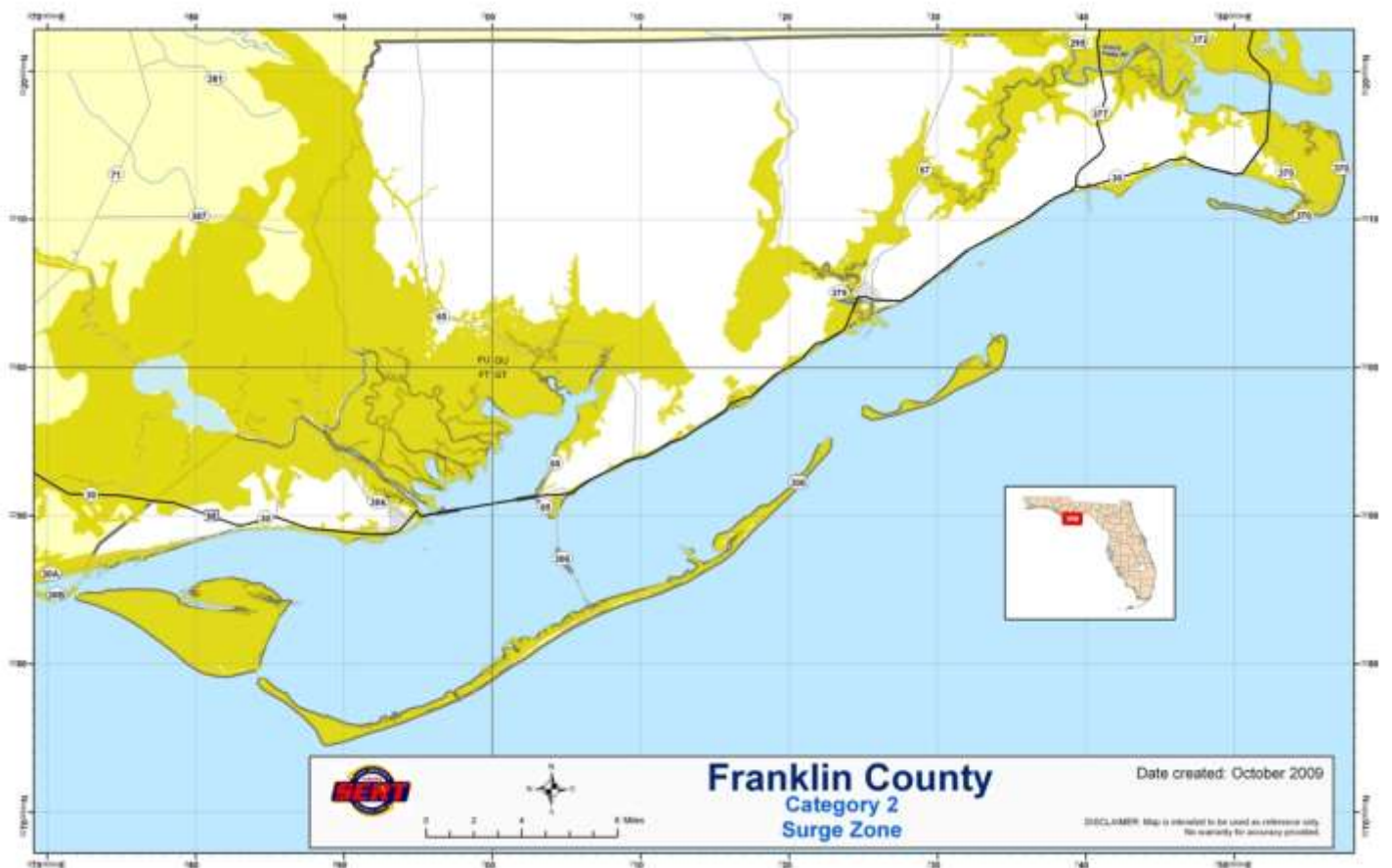
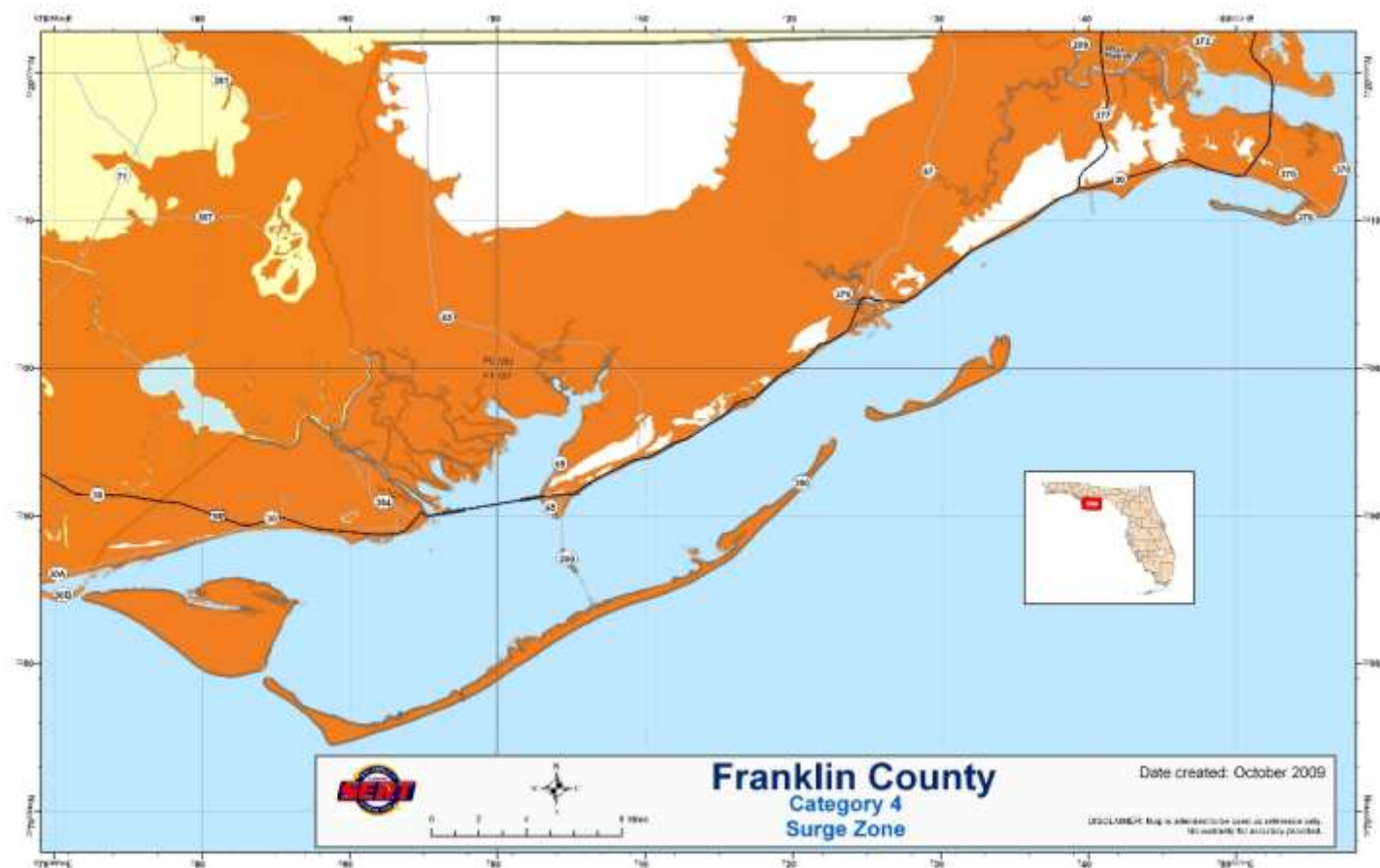


Figure D. Franklin County Surge Zones by Storm Category







Franklin County is subject to coastal flooding caused by extra tropical cyclones and hurricanes. Extra tropical cyclones can occur at any time of the year but are more prevalent in the winter and spring months. The prime hurricane season is from August to October during which time 80 percent of all hurricanes occur. September is the worst month for hurricanes during which 32 percent of the total occur. Hurricanes are of shorter duration than northeasters and generally last through only one tidal cycle.

The coastal areas of Franklin County are, for the most part, surrounded by barrier islands. St. George Island and Little St. George Island, for example, offer some protection to the coastal area along St. George Sound and Apalachicola Bay from wave action. It is expected, however, that portions of the barrier islands would be overtopped during the larger storm events. In 1973, the state of Florida established a Coastal Construction Control Line that now includes the coastal beaches of St. George Island, Dog Island, and Alligator Point. The purpose of this line is to control coastal land use and building construction methodology for areas susceptible to direct storm surge, erosion and wave runup.

The entire coastal area (the unincorporated and incorporated sections) of the county are subject to flooding from a powerful hurricane or tropical storm event that can produce significant storm surges resulting in flood occurrences. Figure F, Franklin County Flood Zone Area Map, identifies that a large portion of the county is located in Zone A, with specific areas in Zone AE, and entire coastline of the county and portions of the northeast is Zone VE (all zones that are prone to

flooding events). Substantial flooding can and has occurred in the City of Apalachicola, the City of Carrabelle, the Town of Alligator Point, Lanark Village, the Town of Eastpoint and St. George Island as noted from previous flooding events.

Coastal storms are the type of hazard events that have historically impacted this area most frequently, with 91 coastal storms on record since 1853, four of which occurred in the past 10 years. Of the 91 coastal storms that have impacted Franklin County, five developed into a hurricane. According to historical data provided by the Florida Department of Environmental Protection, Franklin County has been significantly impacted by a number of hurricanes since 1953. Historical data indicates that a number of events have impacted Franklin County resulting in flooding within many areas of the County. Details of these events are as follows:

- **1953 Hurricane Florence:** This hurricane made landfall near Panama City, put five to seven feet of storm tide into Apalachicola, Carrabelle and Panacea. The heaviest damage was in Franklin County where hundreds of homes destroyed and many businesses impacted.
- **1972 Hurricane Agnes:** Coming ashore at Cape San Blas, this storm dumped tremendous amounts of rain on the Apalachee Bay region. In addition, storm tide was again a great destructor. Alligator Point was inundated and at least 20 houses were washed away and another 50 damaged. Both St. Marks and Apalachicola had four to five feet of water in their downtown districts.
- **1985 Hurricane Elena:** Elena made two passes offshore of Jefferson County before making landfall in Mississippi. Wind damage associated with Hurricane Elena was limited to shoreline areas of Jefferson County; however, the accompanying storm surge, of approximately 8 to 9 feet at St. Marks, resulted in damage to shorefront protection structure and buildings.
- **1985 Hurricane Kate:** Kate made landfall at Mexico Beach, in Gulf County, with peak winds reaching 85 mph at Apalachicola, just 2 months after Hurricane Elena. The storm surge affecting Jefferson County is estimated to have been approximately 8.4 feet at Shell Point. Land falling wind and waves, associated with Hurricane Kate, resulted in the destruction of 46 buildings and damage to 15 more.
- **July 1994, Tropical Storm Alberto:** Flood crests on the Apalachicola River exceeded 100-year events from the six to 14 inches of rainfall associated with Tropical Storm Alberto. The flooding caused 3,000 people in the panhandle to evacuate and cost more than \$75 million in damages to public and private properties and the agriculture industry including 90% of the oysters in Apalachicola Bay.
- **In 1995, Hurricane Allison** threatened the Apalachee Bay Region. Thankfully, the storm weakened and made landfall as a tropical storm. However, the TS Allison still did approximately \$1.7 million in damages, mostly to a new roadway to Alligator Point. Hurricane Earl in 1998 was the next tropical event to directly impact the Apalachee Bay Region. Making landfall near Panama City, most of the force of the hurricane was well to the east of its center. Gusts of over 90 mph were recorded near St. George Island and storm tide of more

than six feet was experienced along the Apalachee Bay coastline. Residents of St. George Island were temporarily isolated because the bridge was inundated. More than 20,000 residents were without power and 2,000 people moved into public shelters. More than 1,300 homes.

- **March 1998, Flooding/El Nino:** In 1998, the inland flood caused an overall property damage estimated at \$367 million. The Apalachicola River at Blountstown crested near 27.2 feet (the third highest crest) on March 13, 1998. In Franklin County, rising waters along the Apalachicola River flooded 40 to 50 homes near Fort Gadsden and Bay City.
- **In 1998, Hurricane Earl:** Earl made landfall in Panama City Beach in Bay County. In Jefferson County, the storm surge was approximately 8 feet at St. Marks. Shorefront erosion resulted in damage to the Marsh Islands.
- **August 2004, Hurricane Frances:** Frances was a Cape Verde-type hurricane that reached a peak intensity of category 4 on the Saffir-Simpson Hurricane Wind Scale. Frances hit the Florida east coast as a category 2 hurricane before moving over the Gulf and moving ashore for the final time at the mouth of the Aucilla River as a tropical storm. While the coastal communities in the Apalachee Bay Region experienced moderate storm surge, five (5) above normal tide, the remnants of Hurricane Francis produced more than 10 inches of rainfall.
- **2005 Hurricane Dennis:** Hurricane Dennis made landfall on Santa Rosa Island, between Navarre Beach and Pensacola Beach, in Escambia County. Although well westward of Jefferson County, this hurricane produced a storm surge of 6 to 9 feet in Apalachicola Bay and 7.5 feet at the mouth of the Aucilla River. High waves, associated with Hurricane Dennis resulted in beach erosion to open coast areas of both Franklin County and Jefferson County, with approximately 37 buildings sustaining damage in Jefferson County.
- **April 2005 Flash Floods:** Five to ten inches of rain over a few days combined with significant rainfall amounts upstream, caused severe flooding along the Apalachicola River and nearby low-lying areas. Forty to fifty roads throughout the area were closed due to high water and many residents along Lake Grove Road were adversely affected as reservoirs, creeks and streams surged above their banks. The affected communities had damages totaling \$5 million and one hundred and fifty residences were damaged by flood waters.
- **August 2008 Tropical Storm Fay:** This storm made its fourth and final landfall in Florida near Carrabelle. Rainfall amounts exceeded 24 inches in some locations and severe flooding occurred throughout the Apalachee Bay region. Calhoun, Gulf, Jefferson, Leon, Liberty and Wakulla counties were deemed eligible for Public Assistance by FEMA. In totality, TS Fay caused \$195 million in damages in Florida alone.
- **June 2012 Tropical Storm Debby:** Debby caused extensive flooding in North Florida and Central Florida during late June 2012. Franklin County felt adverse effects of the storm. In Apalachicola, heavy wind gusts were observed as well as 6.03 inches of rainfall resulting in widespread flash flooding. Debby caused damage to a number of structures in the county including the roof of the courthouse, a section of the SGI Fishing Pier and washed out the Gulf Shore Building at Alligator Point.

- **September 2016 Hurricane Hermine:** Hurricane Hermine caused serious damage to Dog Island, a barrier island just three miles off the Carrabelle coast, including major erosion affecting the shorebird nesting area. Hermine also battered Alligator Point, leaving behind road damage and coastal erosion. Flood waters rose over Highway 98, prompting street closures throughout the area. (Will add further info)

Assets in the Special Flood Hazard Area

As of 2016, unincorporated Franklin County has approximately 3,482 structures within the Special Flood Hazard Area. These structures include approximately 3,346 single and multi-family houses, as well as approximately 136 institutional, industrial, and commercial structures. The tax collector's office reports that there are 1,251 property records identified as mobile homes, which accounts for approximately 25-29% of the total residential structures in the county. In addition, due to the number of mobile homes, the older homes, the poorly constructed homes, the non-elevated structures located along the coastline, and the infrastructure could experience extensive property damage. (See Table 2 below)

Table 2 – Values of Structures in the Floodplain Area in Franklin County)

Table 4.7 – Structures Located in the Floodplain Area in Franklin County							
Floodplain	Residential	Commercial	Medical	Industrial	Agriculture	Education	Government
100-year	3,346	75	8	43	2	0	8
500-year	179	6	1	6	0	0	5

Source: State of Florida Enhanced Hazard Mitigation Plan, Page C.11

Table 4.8 – Values of Structures in the Floodplain Area in Franklin County (in millions)							
Floodplain	Resid. (\$ million)	Comm. (\$ million)	Med. (\$ million)	Indus. (\$ million)	Agric. (\$ million)	Educ. (\$ million)	Govt. (\$ million)
100-year	726,961.70	57,307.69	3,907.70	7,386.74	470.57	0.00	15,185.67
500-year	33,181.26	4,977.20	301.62	662.09	0.00	0.00	1,795.22

Source: State of Florida Enhanced Hazard Mitigation Plan, Page C.15

Table 4.9 – Franklin County Facilities in the Floodplain Area						
Floodplain	Hospitals	Fire Stations	Police Stations	Schools	Other	Total Facilities
100-year	0	1	3	0	70	74
500-year	0	0	1	0	6	7

Source: State of Florida Enhanced Hazard Mitigation Plan, Page C.19

Table 4.10 – Value of Franklin County Facilities in the Floodplain Area (in millions)						
Floodplain	Hospitals (\$million)	Fire Stations (\$million)	Police Stations (\$million)	Schools (\$million)	Other (\$million)	Total Facilities (\$million)
100-year	0	0	3.78	0	3.46	7.24
500-year	0	0	1.26	0	0.86	2.12

Source: State of Florida Enhanced Hazard Mitigation Plan, Page C.23

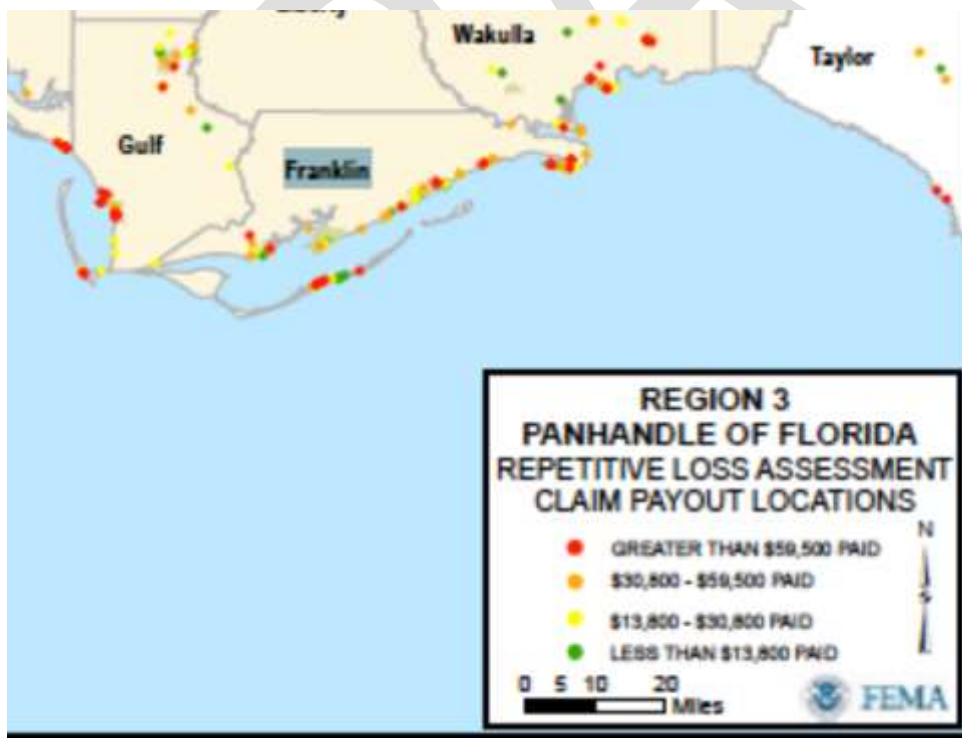
Source: Franklin County Local Mitigation Plan (2016)

Franklin County has significant physical assets that could be impacted by flooding – specifically by storm surge or flooding associated with a hurricane. There are approximately 38 critical facilities in the identified Special Flood Hazard Area, which includes emergency management facilities, police precincts, fire stations, schools, and immediate medical facilities. The loss of any one of these critical facilities to flooding could have serious consequences for Franklin County, as these facilities are -by definition – essential to the success of any response and/or recovery to a hazard event in Franklin County, and must be available for use and operation when they are needed. Should these critical facilities be inundated by flooding, or should ingress/egress be restricted, the residents of Franklin County could be left without emergency services. Appendix G contains details and values of these assets.

Loss Properties and the Special Flood Hazard Area

Repetitive Loss properties are a significant portion of the claims payments that the NFIP pays out, and the Repetitive Loss properties in Franklin County are no exception to this. Since 1978, there have been over 2,348 NFIP claims filed for damages to Repetitive Loss properties in Franklin County, with payments for those claims totaling \$29,826,960. Currently, Unincorporated Franklin County has a total of 91 repetitive loss properties. Refer to **Figure E** for the general locations of Repetitive Loss Properties in Franklin County.

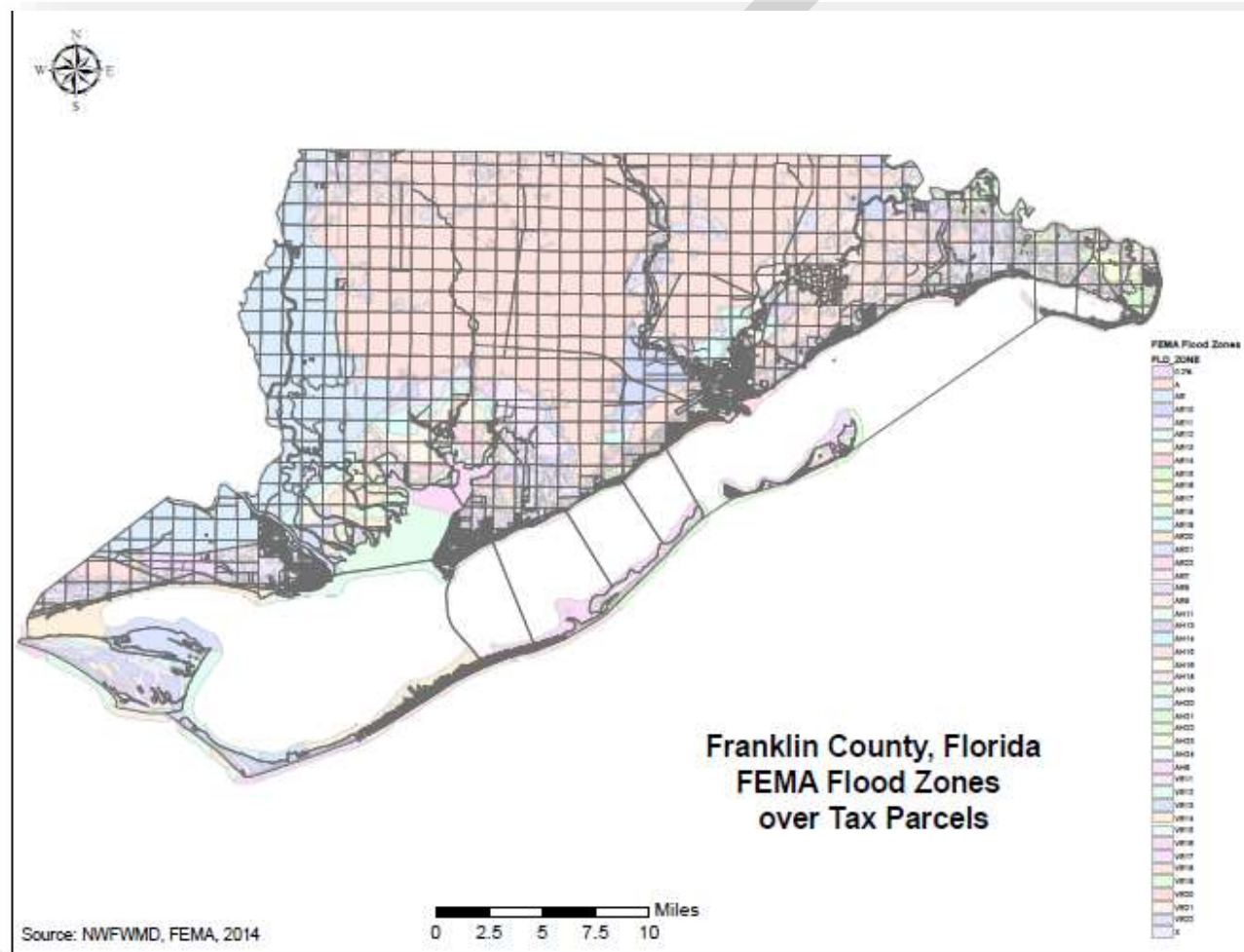
Figure E: Locations of Repetitive Loss Properties and the SFHA



Source: FEMA Repetitive Loss Data as of August 2016

The need for stormwater drainage improvements became apparent as a result of extremely heavy rainfall from coastal storm events. These coastal storm events caused county-wide structural flooding. Although numerous factors throughout the County contributed to the need for drainage improvements, none were more pronounced than the flooding that occurred to both property and structures during the storm events. It should be noted that the "Claims" represent flood loss claims from only those properties with more than one flood insurance claim. This analysis, therefore, does not include flooding of properties with only one claim or those without flood insurance.

Figure F: Franklin County's Flood Zone Area Map



A total of eleven jurisdictions contribute to the 4 watersheds within Franklin County. The watersheds include the Lower Ochlockonee Watershed, the Apalachicola Watershed, the New Watershed, and the Apalachicola Bay Watershed. The jurisdictions included in these watersheds include the following counties in Florida (Calhoun, Gadsden, Gulf, Leon, Liberty, Franklin, Jackson,

and Wakulla) and Georgia (Decatur, Grady and Thomas). Over recent years, the limits of these municipalities have changed due to annexation, thus impacting the overall unincorporated area. The flood basin is illustrated in the previously developed areas as well as the undeveloped areas.

The County, in partnership with the State of Florida, received funding via the National Resources Damage Assessment (NRDA) for the Apalachicola Watershed Restoration Project. The County partnered with the Apalachicola National Estuarine Research Reserve (ANERR) and sought a grant through the Florida Department of Environmental Protection for the Apalachicola Watershed Restoration Project. The goals and objectives of the project include restoration, enhancement and protection of habitats; restoration, improvement and protection of water resources; protection and restoration of coastal and marine resources; restoration and enhancement of natural processes and shorelines; and the promotion of community resilience. The Apalachicola Bay Watershed Restoration project represents a large-scale, regional approach to solving critical water resource and habitat threats to the Florida Gulf Coast.

The Apalachicola Bay Watershed Restoration project will directly enhance water quality, aquatic ecosystems, and associated wetland and riparian habitats within the watershed—and the communities that depend on those natural resources and that economy—and set them on a more sustainable, resilient footing for the future. The overall concept includes six projects including 1. Lower Apalachicola River Basin Restoration – Tate’s Hell State Forest; 2. Hydrological Restoration of the Apalachicola River and Box-R Wildlife Management Areas; 3. Money Bayou Wetlands Restoration; 4. Marsh and Oyster Reef Restoration at the Apalachicola National Estuarine Research Reserve; 5. Apalachicola Watershed Agriculture Water Quality Improvement; and 6. Apalachicola Bay Oyster Restoration (See Appendix G for the Information Summary on the Apalachicola Bay Watershed Restoration project).

The primary Gulf Coast Ecosystem Restoration Council Comprehensive Plan goal the proposal addresses is restore and conserve habitats, with the complementary goal to restore water quality. The primary corresponding objective is to restore, enhance, and protect habitats, but the proposal will also restore, improve, and protect water resources. The six projects collectively will replenish coastal and marine resources by restoring key coastal habitats and restore water resources by reducing excessive nutrients. These actions in turn will revitalize the local economy, which depends on oystering and other marine-based products as well as tourism, and promote resilience and sustainability of local communities throughout the watershed.

The Northwest Florida Water Management District and the Florida Forestry Service initiated restoration projects within the Tate’s Hell State Forest drainage system to reconnect severed flow ways and rehydrate the wetlands. The goal was to restore the hydrologic connectivity of tributaries draining to the bay and improve water quality and habitat. To date, eight hydrologic restoration projects have been completed encompassing ~55,000 acres, setting the foundational stage for more comprehensive restoration of the other watersheds draining to Apalachicola Bay. The proposed project will include priority basins in the Tate’s Hell State Forest Hydrologic Restoration Plan (<http://NWFWMDWetlands.com>).

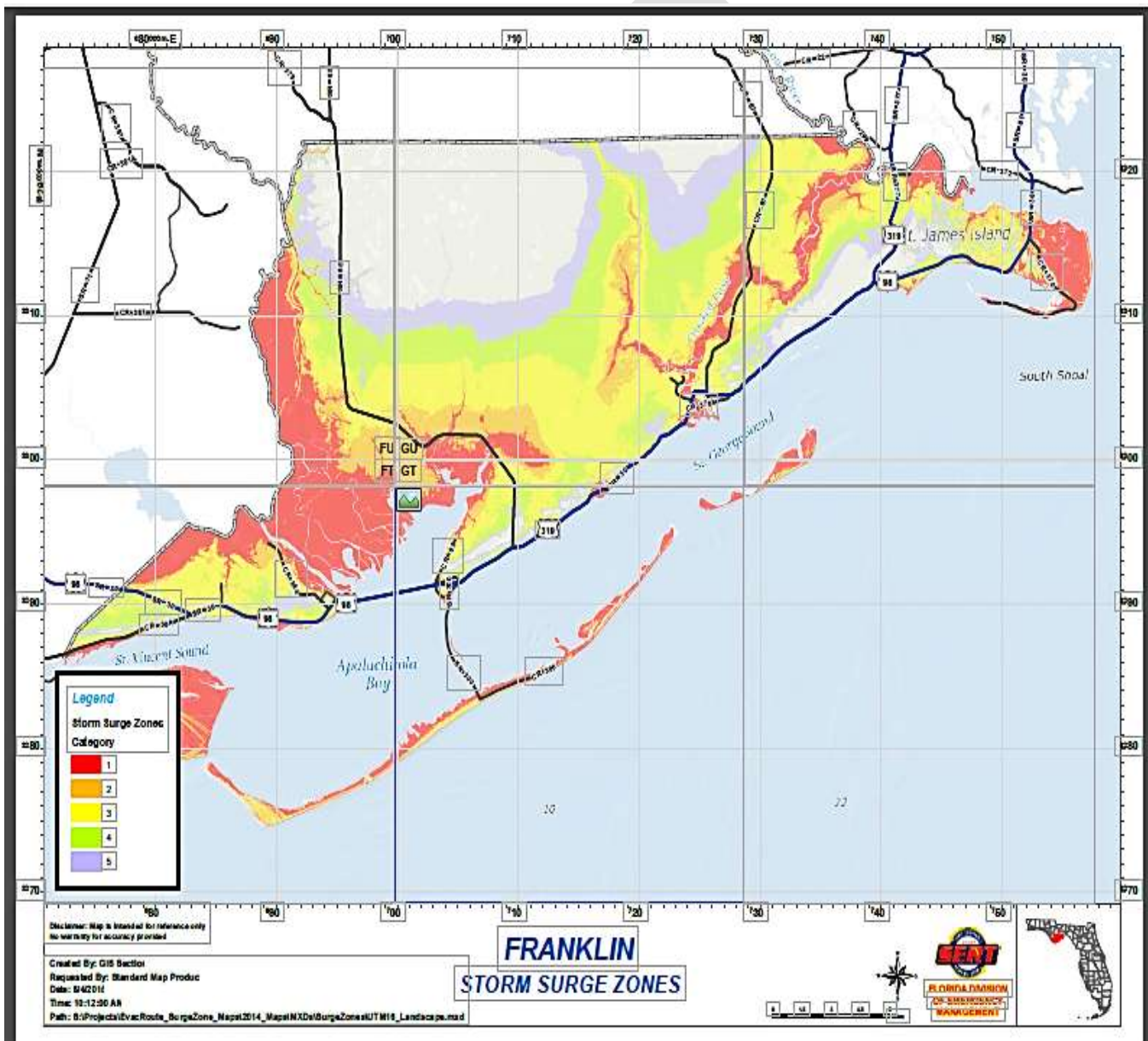
Storm Surge

Storm surge is a large volume of water that sweeps across the coastline where a hurricane makes landfall. According to the Regional Hazards Analysis conducted by the Apalachee Regional Planning Council, nowhere is the threat of storm surge more prevalent than in Apalachee Bay Region. The Big Bend region of the state extends out into the Gulf of Mexico creating a naturally enclosed pocket which has resulted in some of the highest computer projected storm surge heights in the nation. See Figure G below for Storm Surge Zones in Franklin County.

Figure G: Storm Surge Zones in Franklin County

Source: Florida Division of Emergency Management/GIS/Public Mapping, 2016

Potential Storm Tide Heights for Franklin County - *Based on the category of storm on the Saffir-Simpson Hurricane Wind Scale (Surge heights represent the maximum values from selected SLOSH MOMs).



*Storm Strength

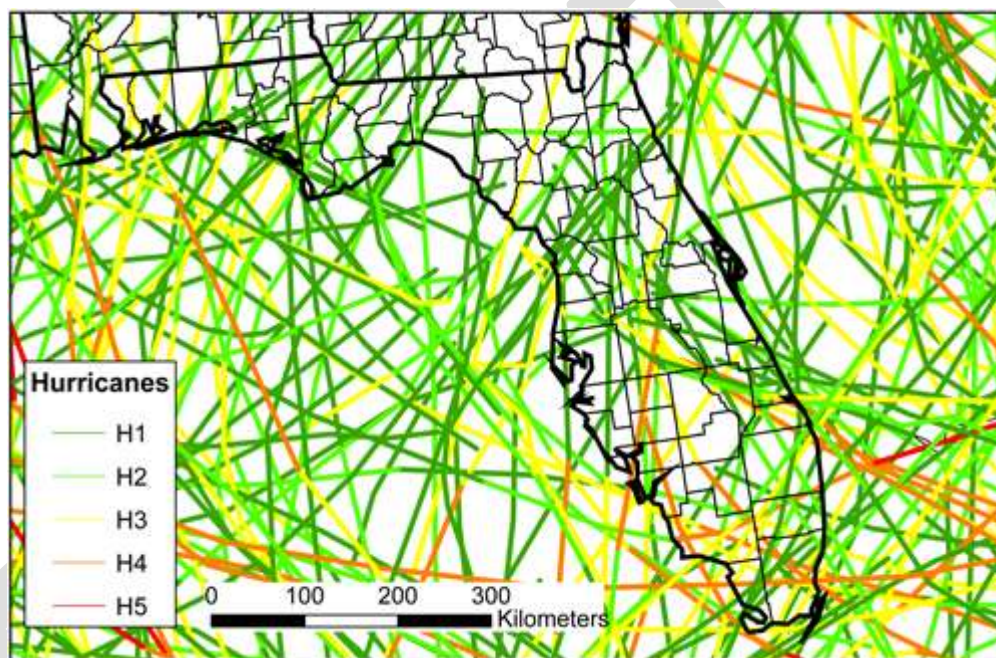
In Feet above NAVD88

Category 1	Up to 10'
Category 2	Up to 14'
Category 3	Up to 21'
Category 4	Up to 24'
Category 5	Up to 28'

Source: Apalachee Regional Planning Council Regional Hazard Analysis, 2010

According to NOAA, since 1853 there have been 91 coastal storms, including 23 hurricanes that affected Franklin County, most recently in September 2016 when Hurricane Hermine made its impact. Refer to **Figure H** for historical hurricane tracks for Franklin County.

Figure H: Historical Hurricane Tracks for Franklin County, FL from 1851 to 2006



Source: <http://fcit.usf.edu/florida/teacher/science/mod2/tropical.cyclone>

To identify vulnerable areas to storm surge, the National Hurricane Center's Sea, Lake and Overland Surges from Hurricanes (SLOSH) modeling software was utilized. As illustrated below, the results of the model indicate that 38% of the County's population and 54% of its critical structures/buildings could be affected by storm surge. Refer to **Figure G** for potential storm surge zones from hurricane events. (Note: At the time this model was run, the NWS still combined surge and wind speed into hurricane category classifications. This practice has since been discontinued. Future SLOSH model runs will reflect this recent change.)

During the 2016 Plan development, sea-level rise and coastal erosion were identified as

additional hazards that could further impact Franklin County. Each of these identified hazards is reviewed for their potential vulnerabilities and impacts to Franklin County, including maps of affected areas.

Coastal Erosion

Coastal erosion is defined by FEMA as "the wearing or washing away of coastal lands". Coastal erosion is occurring in Franklin County due to a variety of environmental and human factors, and has become a major cause of



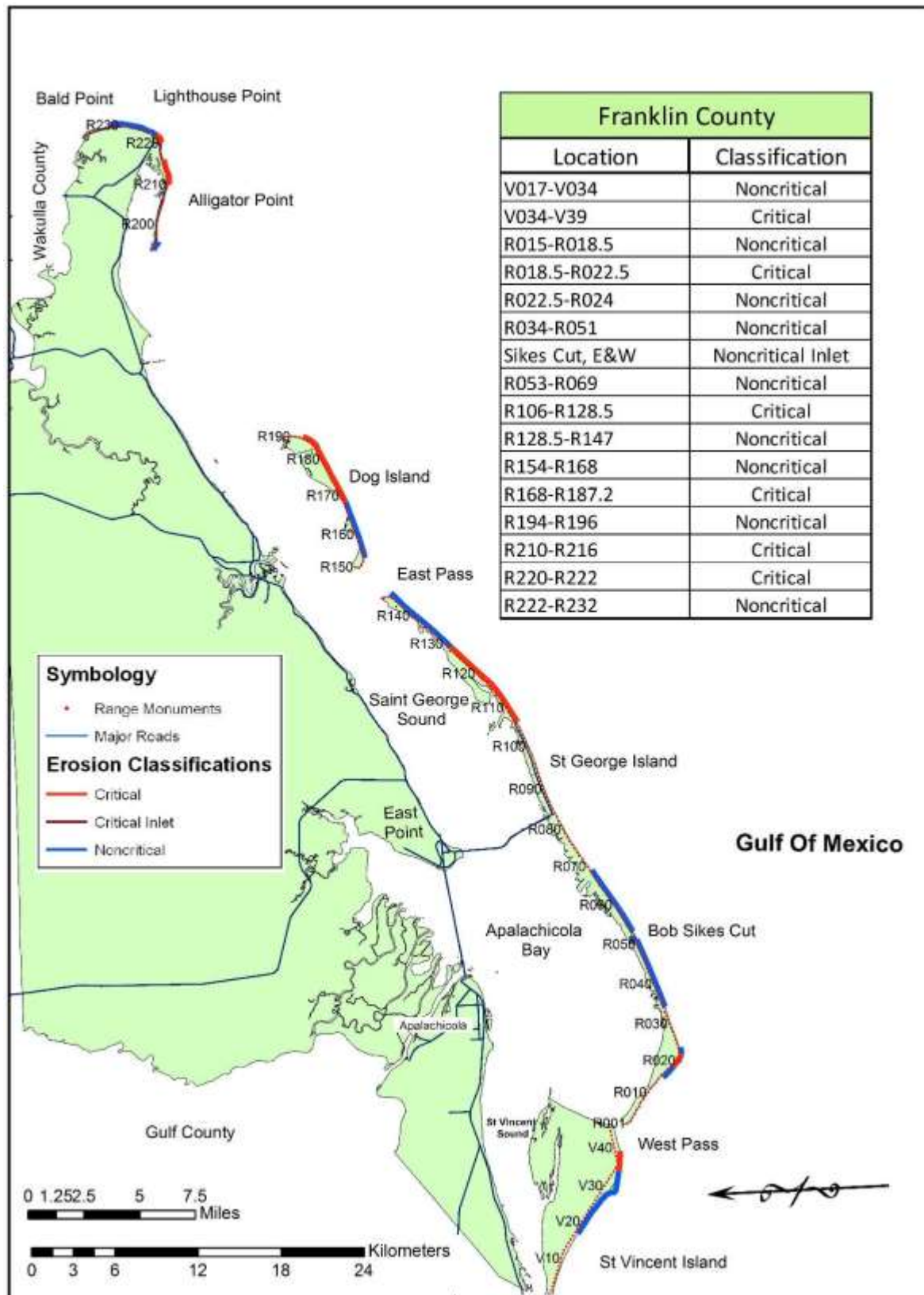
Coastal erosion along St. George Island

concern for the area. Driven by a rising sea level, large storms at sea and powerful ocean waves, erosion wears away the beaches along Franklin County's coastline and barrier islands. Refer to **Figure I** for critically eroded shorelines within Franklin County. As depicted in this figure, Franklin County's areas with significant coastal erosion occurrence are near Alligator Point, Dog Island, St. George Island and St. Vincent's Island.

The Division of Water Resource Management within the Florida Department of Environmental Protection produced a report titled *Critically Eroded Beaches in Florida* in June 2015 that outlined the six critically eroded beach areas (11.1 miles), nine non-critically eroded beach areas (19.7 miles), and one non-critically eroded inlet shoreline area (0.5 mile) in Franklin County (**Figure I**). These areas included St. Vincent Island Cape St. George on Little St. George Island, St. George Island, Sike's Cut, Dog Island, Alligator Point, and St. James Island. The report provides detail on the extent of erosion in these areas, in addition to impacts to beach wildlife habitat, sea turtle nesting habitats, historical structures, maritime forest, park and recreational infrastructure, and private development.

The County has been proactive in addressing coastal erosion issues, including the use of Living Shores Workshops provided for residents. These workshops are provided by the Apalachicola National Estuarine Research Reserve and provide education on the coastal erosion process and activities that can exacerbate erosion issues such as seawalls and riprap, especially on neighboring properties. The focus of living shorelines is the usage of natural protective options such as the use of plants and/or oyster shells to protect the shoreline and maintain valuable habitats that stabilize shorelines, filter runoff, protect the surrounding intertidal environment, increase water quality and create habitat for aquatic and terrestrial species.

Figure I: Critically eroded shoreline within Franklin County.

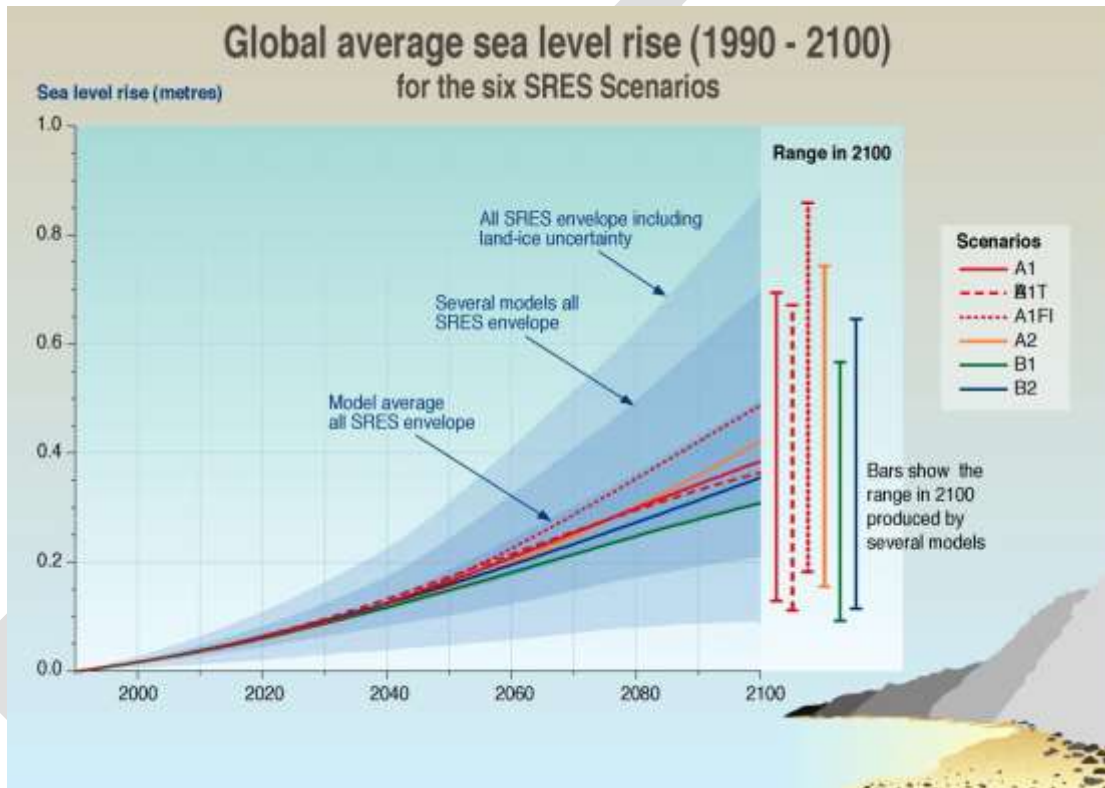


Source: Division of Water Resource Management Florida Department of Environmental Protection, June 2015

Sea Level Rise

The degree to which sea level rise accelerates due to climate change could vary based on future global efforts to reduce greenhouse gas emissions. The Intergovernmental Panel on Climate Change (IPCC) accounts for this variability by using low and high emission scenarios in its sea level rise projections. The most recent IPCC projections are considered conservative by most experts, as they do not include rapid ice sheet melting. Based on IPCC temperature projections, The National Academy of Science has modeled sea level rise for three different emission scenarios (Refer to **Figure J**).

Figure J: Sea Level Rise Projections from 1990 to 2100



Source: Intergovernmental Panel on Climate Change.
https://www.ipcc.ch/publications_and_data/ar4/wg1/en/faq-5-1.html

Flooding is a significant hazard for Franklin County, but it is not the only hazard facing the County. Other identified hazards include tornadoes, hail, severe storms, drought, and fire. Refer to Appendix E for information regarding the County's current multi-hazard risk assessment, which is part of the 2015 Local Mitigation Strategy.

3.2 Flood Problem Assessment

In general, Franklin County's flooding problems are caused by its low elevations and flat slopes, and the interaction of these geographic features with fluctuating tides. The flat slopes result in slow stormwater movement during periods of heavy rain fall. The storm water also accumulates in low-lying areas, which can result in flooding.



Alligator Point after 2016 flooding

This section assesses the problems associated with flooding throughout Franklin County, and identifies in general terms the potential impacts that can be expected from future flood events. First, though, is a discussion regarding the County's Warning and Evacuation System, which is designed to lessen these impacts where possible.

Warning and Evacuation

Early notification of adverse weather conditions which produce flooding emergencies could significantly increase the County's ability to rapidly and efficiently evacuate its citizens and visitors. Emergency evacuation route maps can be found in the phone book and on-line and road signs identify evacuation routes out of threatened areas. Additionally, the 1-10 inbound lane reversal (or contraflow) procedures are expected to significantly increase evacuation efforts. Early notification is also vital to evacuation, mitigation and preparedness activities. Franklin County employs several alerting mediums to maximize warning to the threat area. The combination of all available avenues does not, however, reach 100% of the threatened population. An aggressive disaster resiliency education campaign is in place through the Franklin County Department of Emergency Management and Apalachicola Regional Planning Council to distribute mitigation and preparedness information county-wide.



During 2015, to further enhance the emergency public notification system, Franklin County installed outdoor warning sirens at several locations including the Donnie Wilson Ball Park in Apalachicola, the Franklin County High School in Eastpoint, and the Carrabelle RV Park in

Carrabelle. As future funding is made available, the County hopes to acquire additional sirens to increase the warning notification process for all residents and visitors to Franklin County.

Warnings are distributed in a variety of methods. Primary notifications are issued through the National Weather Service (NWS) in Tallahassee, FL. The most common method of receipt of these notifications is through an All Hazard Alert Monitor, more commonly referred to as a weather radio. This is a general notice designed to alert the general population of hazardous weather conditions. If the threat is deemed significant, the local Emergency Alert System (EAS) is initiated through one of two local stations required to manage the EAS; Local Primary 1 (LP1) and Local Primary 2 (LP2). Activation of the EAS broadcasts the emergency message across all television and radio markets in the same coverage area as the LPI and LP2 stations.

An early warning system was implemented in Franklin County called Nixle that allows FCEM to send warning messages to user's phone, email, or both. However, a new emergency notification system known as Everbridge is being provided by the State of Florida to Florida counties at no cost in an effort to bolster AlertFlorida, a landmark initiative which will provide statewide emergency alert and notification services to Florida residents, businesses and visitors. AlertFlorida services are currently being implemented in several counties during an initial phase, with additional deployment phases continuing throughout 2016. Each participating jurisdiction will be able to customize the categories of alerts available in their community through a local opt-in portal. The system also will provide automated notifications of flash floods, tornados, and other watches and warnings issued by the National Weather Service. AlertFlorida is expected to be the most comprehensive and coordinated statewide emergency notification program in the country. Once fully deployed, users will be able to select their preferred language and methods for receiving alerts, including SMS text messaging, e-mail, voice calls, TDD/TTY messaging, and mobile device apps for Android™, Apple® and Windows® mobile devices. The system will also allow users to post alerts to social media channels and will interface directly with existing broadcast-based alerting systems.

FCEM posts public updates to their county website and also utilizes social media such as Facebook and Twitter to promote public awareness about threatening weather, evacuations, and other pertinent flood related issues.

In terms of flood and storm surge warning networks, Franklin County was awarded HMGP funding through the Northwest Florida Water Management District's Governing Board to install real-time hydrologic monitoring stations. The flood and storm surge network records and transmit continual, real-time rainfall, water level and stream flow data from around the Panhandle. These monitoring stations help officials decide when to issue advance flood and evacuation warnings to promote better protection and preparedness efforts among residents and business owners in the county.

To further expand the County's alert and notification methods, the county is working with the Florida Department of Transportation to institute a pilot program using the WeatherStem system

which serves as an alert platform. This is a technologically driven system that utilizes real time reporting methods for monitoring storm surge conditions, wind speed and direction and other threatening conditions so the county can enhance its current alert and notification system to benefit the public and first responders.

Even through deployment of these methods, there is no guarantee that the entire population in the threatened area is notified of an emergency. Expanding the warning capability to a fully functioning system would include installation of river gauges designed to monitor rising river and stream water levels (excluding the twice daily tidal influences) and expansion of the current emergency warning program. Once installed, water levels above a defined threshold will alert emergency management officials so that an analysis can be conducted and corresponding notification can be initiated. In an emergency, if the threat is such that notification is required, emergency management officials have the option of activating any of the alert methods defined above.

Employers in the Floodplain & Impacts from Future Flooding

In Unincorporated Franklin County, 136 employers are located within the floodplain. All of these major employers, both those fully in the floodplain and those that are only partially exposed, employ approximately 36% of the community work force. The percentage of major employers in Unincorporated Franklin County that are located within the floodplain is not insignificant. Future flood events that are widespread or significant could result in physical damages and loss of business income for any or all of these employers. This would have economic impacts throughout the County, and could have significant economic impacts for both these employers and their employees.

Rainwater Flooding Impacts to Vulnerable People

Rainwater flooding has the potential to significantly impact vulnerable populations, structures, infrastructure, critical facilities and economic activity. Although human casualties during this type of flooding may be limited compared to flooding accompanied by high winds, the probable evacuation and sheltering requirements can quickly deplete County resources and abilities to respond to collateral emergencies.

Public Health Concerns from Future Flooding

According to the Center for Disease Control and Prevention, additional public health impacts during flooding events can occur from mold growth and contaminated water. Mold often grows in structures after a flood event. Populations with asthma, chronic lung conditions, or a weak immune system can contract mold-caused infection in lungs if they are in contact with mold spores. Another potential public health vulnerability can occur because water distribution and waste water facilities are located in the floodplain and could become or cause contamination. Flood events can contaminate drinking water supplies and nearby waterways with intestinal bacteria, such as E. Coli, Salmonella, and Shigella.

Impacts to Critical Facilities from Future Flooding

There are 38 county owned critical facilities in Unincorporated Franklin County that are vulnerable to flooding; this exposure is estimated at \$15.9 million. Critical facilities in the county include public buildings, water and wastewater treatment facilities, airfields, fire stations and critical private sector resources such as a radio station, hardware stores, gas stations and commercial businesses with industrial ice machines. Impacts to these critical facilities could result in disruptions of government services, damage to critical facility structures, and degradation of surface and groundwater from wastewater and stormwater runoff.

Impacts to Transportation Infrastructure from Future Flooding

Transportation infrastructure is also significantly vulnerable to flood events. Rainwater flood impacts could include inundation of roadways, disruption of public transit, reduction of transportation accessibility, and an increased rate of automobile accidents. Significant amounts of rainwater can also cause nuisance flooding, which can impair traffic flows. Although the occurrences are limited, the inconvenience caused by nuisance flooding has prompted the Franklin County Department of Public Works to map and monitor these areas during severe weather conditions. Nuisance flooding occurs county-wide, though it is typically found on streets within neighborhoods and small communities.

Structures and Populations at Risk from Future Flooding

Approximately 38% (4,371 people) of the population of Unincorporated Franklin County and as many as 54% of critical facilities (38 various structures) could potentially be impacted by structural and nuisance flooding. Such losses would result in excess of \$15 million at fair market value estimates. This data was obtained from the NFIP data on the 100 Year and Local Historical Flooding map for Franklin County.

Table 3: Total Just Value of the Real Property and Tangible Personal Property in Franklin County (2015)

Property Type	# of Parcels	Just Value
Single Family Residential	7,832	\$1,377,701,093
Multi-Family Residential	144	\$19,941,694
Agricultural	185	\$59,014,812
Vacant Residential	7,381	\$337,242,957
Vacant Non-Agricultural	250	\$15,245,458
Commercial	801	\$97,996,907
Government & Institutional	23	\$9,346,215
Homestead Agricultural	0	\$0
Government & Institutional Non-Taxable	1,435	\$580,596,749
Total Real Property Value		\$2,497,085,885
Tangible Personal Property		\$61,793,776

Railroad and Private Carlines		\$490,916
Total Just Value		\$2,559,370,577

Source: State of Florida, Department of Revenue Property Tax Oversight, 01/2015

NFIP Claims

According to FEMA's data, unincorporated Franklin County has more than 2,908 flood insurance policy holders in effect as of 8/31/15. Of those, more than 2,348 flood loss insurance claims have been filed since 1978. The total estimated dollar loss from these claims is \$29,826,960. In all likelihood, this figure represents only a percentage of the actual cost of flooding in Franklin County, as it only accounts for those properties that have an NFIP policy in effect.

Sources of Flooding

The various sources of flooding and the resulting complications listed previously have had some detrimental impacts within and around the communities of Apalachicola, Carrabelle, Lanark Village, St. Theresa, Eastpoint and St. George Island. As stated earlier, some 91 structures within unincorporated Franklin County received insurance claim pay-outs for flood damages. These structures include repetitive flood damaged buildings as well as buildings that have been subjected to flood damage only once. The total sum of the insurance claims paid as of August 2016 totals more than \$29,826,960.

Franklin County is vulnerable to hurricanes and hurricane surges. Although this region hasn't been significantly impacted in recent years, according to FEMA's Hazards United States -Multi Hazard (HAZUS-MH) modeling software, a single Category 5 hurricane surge would impact the entire population of the county. All 38 critical facilities -valued at more than \$15.9 million -could be impacted. All 3,484 structures/buildings in the County could receive some damage, for a total loss of more than \$2,559,370,577 (total just value). Damages occur as a result of high winds, storm surge and flooding. Refer to **Table 4** for a summary of HAZUS results of a Category 5 hurricane scenario.

Table 4: Summary of HAZUS results, Category 5 Hurricane

Coastal Flood	Residential	Commercial	Medical	Industrial	Agriculture	Education	Government
Depth Range (1- 5 feet)	594	23	5	11	0	0	3
Depth Range (6 – 10 feet)	1,460	57	15	7	0	6	9
Depth Range (11 – 15 feet)	1,354	34	5	21	1	0	4
Depth Range (16 – 20 feet)	951	23	4	12	0	0	1
Depth Range (20+ feet)	195	2	0	1	0	0	1

Source: State of Florida Enhanced Hazard Mitigation Plan, Page C33

Table 5 - Values of Structures in the Coastal Flood Hazard Area in Franklin County, Category 5 (in millions)

Floodplain	Resid. (\$ million)	Comm. (\$ million)	Med. (\$ million)	Indus. (\$ million)	Agric. (\$ million)	Educ. (\$ million)	Govt. (\$ million)
Depth Range (1- 5 feet)	76.11	14.76	2.25	0.97	0.00	0.00	5.90
Depth Range (6 – 10 feet)	250.41	24.87	11.13	2.52	0.00	17.30	13.65
Depth Range (11 – 15 feet)	296.84	16.23	1.80	1.99	0.26	0.00	0.67
Depth Range (16 – 20 feet)	206.11	31.28	2.54	1.05	0.00	0.00	0.37
Depth Range (20+ feet)	46.41	2.92	0.00	1.49	0.00	0.00	0.06

Source: State of Florida Enhanced Hazard Mitigation Plan, Page C.38

Impacts to Property from Future Flooding

Damage to residential, commercial and industrial property has the potential to adversely affect Franklin County's ability to collect ad valorem taxes. Property taxes are billed based on an assessed value as of January 1 of each year. Hurricane season runs from June 1 to November 30. Value notices are issued during May and June, and have a 60 to 90 day appeal period. Damages which occur during June, July, or August could give reason to appeal the current valuation.

In the event of a major incident, property that has not been rebuilt or restored would be subject to a new assessment as of the next January 1 assessment year. This has the potential to significantly and unexpectedly reduce Franklin County revenues, which would impact other services. The sales and hotel/motel tax revenues will also be adversely affected for any significant periods of power loss or other interruptions of normal business or tourist activity. 63% of Franklin County's General Fund operating revenues are derived from taxes. In FY-2015, budgeted revenues include \$10.6M in ad valorem real and personal property taxes, and \$959K in sales tax. Currently, there is no mechanism available to Franklin County to offset this potential loss of revenue.

There are a number of impacts from future flooding, most notably the impacts to the county's seafood and tourism industry which are the primary industries in the county. Franklin County produces some of the finest seafood in the county, including more than 90% of Florida's oysters and approximately 10% of the nation's oyster supply with over 2.6 million pounds of oysters harvested annually. In addition to revenue losses from impacts to the county's seafood industry, the county's tourism industry would also suffer significant financial losses from flood events. On average, the County's receives more than 300,000 tourists per year, resulting in over \$190 in annual revenue. Franklin County hosts a number of events each year that draw tens of thousands of tourists, especially the Florida Seafood Festival which drew over 28,000 visitors in 2014 alone. Known as the "Forgotten Coast", Franklin County has a robust tourism industry featuring over 250 miles of award-winning beaches, world famous seafood, state parks, festivals, historic lighthouses and maritime history and culture. Of significant mention is that St. George Island is not only the county's premier beach destination for tourists, but it's also designated as one of America's Top Ten beaches.

Other notable impacts from flooding events impacting Franklin County, and the damages they have caused suggest that the future impacts could include: substantial flooding in the City of Apalachicola, the City of Carrabelle, the unincorporated area along Alligator Point and the census designated areas of Eastpoint and St. George Island; road closures along the coast line and in the unincorporated areas of the county; power lines, downed trees and infrastructure damages; destruction to the county's seafood industry (Franklin County's seafood harvest some of the finest seafood in the country, including more than 90% of Florida's oysters and approximately 10% of the nation's oyster supply with over 2.6 million pounds of oyster meat harvested annually); extensive beach erosion on St. George Island, St. Vincent Island, Dog Island and Alligator Point beach; and damage to the mobile homes, poorly constructed and non-elevated homes along the coastline. In addition, there could be an economic or financial impact with results that would be devastating from a large-scale flood event not only during the crisis phase, which immediately follows the event, yet through the recovery and rebuilding stages.

Coastal Erosion

According to FEMA, erosion can occur across a wide range of timeframes -it can be gradual (occurring over a long period of time, such as over many years); more rapid (occurring over a relatively short period of time, such as weeks or months); or episodic (occurring during a single coastal storm event over a short period of time, such as hours or days).



Franklin County's coastal buildings, critical facilities, infrastructure, and natural resources are highly vulnerable to impacts from coastal erosion. Erosion

can reduce the embedment of a structure's foundation into the soil, causing shallow foundations to collapse, lateral movement, or overturning from lateral loads. In addition, erosion can increase the vulnerability of structures to flood events, by exposing the foundation to increased lateral flood loads (i.e., greater still water depths, possibly higher wave heights, and higher flow velocities).

Coastal Erosion Along St. Vincent Sound

As of the development of this Plan, rates of erosion along different sections of Franklin County are unquantified, but in the US, coastal erosion is responsible for approximately \$500 M per year in coastal property loss, including damage to structures and loss of land. To mitigate coastal erosion, the federal government spends an average of \$150 M every year on beach nourishment and other shoreline erosion control measures. Despite these efforts, a 2000 Heinz Center study found that erosion may claim one out of four houses within 500 feet of US shorelines by mid-century.

In addition, the destruction of natural beaches and resources by coastal erosion would cause long-term economic and social problems for Franklin County, especially given that tourism represents a major economic industry in the County. According to the Franklin County Tourist Development Council, the tourism industry is one of the largest economic drivers of Franklin County. Over time, the erosion to Franklin County's natural resources could impact tourism, and thus County revenues.

Sea Level Rise

The IPCC defines sea-level rise vulnerability as "the extent to which a natural or social system is susceptible to sustaining damage from climate change". This is a function of the exposure of the system to climatic hazards, the sensitivity of the system to changes in climate, and the adaptive capacity of the system to moderate or offset the potential damages of climate change (Kleinosky, 2006). Some of the direct impacts of sea level rise in Franklin County include:

- Inundation of lowlands;
- Accelerated coastal erosion;
- Increased flooding; and
- Increased salinity of rivers and aquifers.

The most significant impact from sea level rise is the gradual and permanent submergence of land by water determined by gradient of the local topography. This results in shoreline retreat, which will be exacerbated by increased rates in erosion and flooding in vulnerable areas.

According to the U.S. Environmental Protection Agency, sea level is rising along most of the U.S. coast and around the world. Rising sea levels inundate wetlands and other low-lying lands, erode beaches, intensify flooding and storm damage, and increase the salinity of rivers, bays and groundwater tables. On-going and future sea-level rise is expected to affect tidal marshes and other near-shore habitats causing serious retreat in the world's shorelines. Coastal habitats, particularly tidal marshes, are among the most vulnerable regions from climate change induced sea-level rise. The impacts of sea-level rise will be an increasing challenge to environmental managers that have the responsibility of maintaining the biological integrity of wetland and coastal habitats.

In an effort to assess the ecological response of estuaries to coastal climate change, a biological monitoring plan for emergent and submerged aquatic vegetation communities was developed by the Apalachicola National Estuarine Research Center (ANERR) as part of the System-wide Monitoring Program (SWMP). The Reserve began looking at the overall distribution of submerged aquatic vegetation in 2005 and is currently focusing on the detailed monitoring of the vegetative characteristics of emergent marshes in the lower-river marshes and along the bay side of Little St. George Island.

In early 2012, the Nature Conservancy (TNC) released a report titled "Understanding Future Sea Level Rise Impacts on Coastal Wetlands in the Apalachicola Bay Region of Florida's Gulf Coast." The project had several objectives but the overarching goal was to model the effects of sea level rise on coastal wetland systems. Additionally, anticipated sea level rise impacts on infrastructure and cultural resources were estimated, as well as the potential impacts to vulnerable species. What they found was that, as expected, the Apalachicola region is susceptible to sea level rise due to its low elevation. With an increase in sea level, coastal wetlands would change dramatically, with forested wetland areas decreasing in size and salt/brackish marsh habitats increasing significantly. Habitat-dependent species would be proportionally impacted by the gain or loss of their habitats. Overall, sea level rise would significantly impact developed land, infrastructure and cultural resources in the area. Lastly, it was predicted that reductions in river flow would intensify the impacts of sea level rise on coastal wetlands. Other impacts noted in the report from the infrastructure and cultural resources analysis was that thousands of septic systems, hundreds of water wells, dozens of bridges and several SUPER Act1 risk sites would likely be impacted by a 1 meter rise in sea level along with many other infrastructure impacts involving transportation corridors and structures. In addition, dozens of National Historic Registry sites would be impacted, the largest being the Apalachicola Historic District.

In an effort to monitor erosion and accretion rates in the Apalachicola region, the ANERR monitors 12 Surface Elevation Tables (SETs) with assistance by the National Geodetic Survey and the DEP's Bureau of Survey and Mapping. The installation of SETs is just one component of a larger initiative to establish the Reserve as a Sentinel Site for environmental change. The 28 National Estuarine Research Reserves already serve as Sentinel Sites for changes in water quality through the System-wide Monitoring Program (SWMP). The Apalachicola NERR has been participating in the SWMP for 20 years but now the Reserve's water quality data will be linked to water level (an exact elevation), so changes in water quality can be related to changes in river flow, sea level and tidal inundation. Other monitoring locations will be tied to these elevations so that we can make connections between water level and habitats within the Reserve.

Another major impact of sea level rise is the increased salinity of rivers and aquifers from salt water intrusion. Loss of wetlands and river ways will impact the water quality of the rivers and streams within Franklin County. This could permanently impact Franklin County's natural ecosystems and way of life noting that the primary source of drinking water for this region is the Floridian Aquifer.

3.3 Floodplain Natural Functions and Management

Franklin County has several river corridors which are of vital importance to the ecosystems of the area, in that they help preserve those qualities that make a river suitable as a habitat for wildlife, a site for recreation, and a source for clean drinking water. River corridors also allow the free movement of wildlife from area to area within the state, help control erosion and river sedimentation, and help absorb floodwaters. The Apalachicola River flows from the confluence of the Flint and Chattahoochee rivers at the Georgia-Florida border, where those rivers join to form Lake Seminole behind the Jim Woodruff Dam. From there the River travels 107 miles through the high bluffs of Grand Ridge and Cody Scarp to the Gulf coastal lowlands. The largest flow of any river in Florida then reaches Apalachicola Bay creating a rich estuary. This mostly-undeveloped basin supports a \$7 billion dollar seafood industry in the Gulf of Mexico. In ideal years it produces over 90% of the oyster harvest in Florida and over 12% of the nation's oyster production.

Natural floodplains generally include marsh areas and low lying areas along waterways such as canals. The natural floodplains reduce flood damages by allowing flood waters to spread out over large areas, which facilitates absorption into the ground, reduces flow rates and serves as a flood storage area to reduce downstream peaks. Residents should all do their part to help keep the floodplains and floodplain waters free of contaminants such as oil, paint, anti-freeze and pesticides. These chemicals pollute the marsh waters, thus decreasing the water quality that local wildlife depends upon for their habitat. Franklin County also has barrier islands such as Dog Island, St. George Island, and St. Vincent Island. These islands serve as a natural protective barrier to incoming hurricane forces such as wave attack and serve to reduce tidal and wind energies as well as serve as natural aquatic habitats, wetlands, marshes and estuaries.

3.4 Impact of Population Trends and New Development

Franklin County is Florida's 65th most populous county with 0.1% of Florida's population. As stated earlier in this Plan development, Franklin County includes two municipalities and the

unincorporated areas. Franklin County, which surrounds Apalachicola Bay, is a rural county encompassing 348,800 acres (544.3 square miles) of land. According to the U.S. Census Bureau, in 2010 the County's population was 11,549 people county-wide, with less than half of them living in the two incorporated areas of Apalachicola and Carrabelle. The population is projected to increase by 12.8 percent between 2010 and 2015 to 13,023 and by 2.5 percent between 2015 and 2020 to 13,351 (Florida Legislature Office of Economic and Demographic Research, 2011). Minorities are projected to continue to comprise a small portion of the overall population of the county. African Americans and Hispanics are projected to comprise approximately 13 percent and 6.5 percent of the total population in 20 years.

Population and residential development in Franklin and Gulf counties is relatively sparse. The only incorporated municipalities within these counties are Apalachicola, Carrabelle, Port St. Joe and Wewahitchka. The combined population of these four cities is approximately 15,300 based on 2010 U.S. Census Bureau data. Population centers in Franklin County include Apalachicola, Carrabelle, and the communities of Alligator Point, Eastpoint, Lanark Village and St. George Island in unincorporated Franklin County. Approximately 43% of the population resides in and around the cities of Apalachicola and Carrabelle with approximately 57% of the population residing in the unincorporated areas of the county. Based on the U.S. Census Bureau data, Apalachicola's population was reported at 2,334 in 2000. In 2010 Apalachicola's population was reported as 3,858 and Carrabelle was 4,007. The population of the Eastpoint community was reported as 3,149 and Lanark Village was 217. (Source: zip-codes.com taken directly from US Census data.)

Growth and new development in Franklin County is primarily concentrated in and adjacent to the cities of Apalachicola and Carrabelle, and the communities of Alligator Point, Eastpoint, Lanark Village and St. George Island. The recent economic downturn has slowed the pace of new development. Much of the development on St. George Island is related to vacation rentals, including homes and small motels. There are roughly 1,824 homes on St. George Island, with approximately half being occupied by full time residents and half on the seasonal rental market. Apalachicola is a traditional fishing village with an historic district. The city strives to manage growth in ways that sustain the historic character, maritime focus and economic viability of the seafood industry.

New residents to the area are retirees who move to Franklin County from other counties in Florida and out of state. In addition, the area is experiencing increased tourism. The tourism numbers are not captured in the census population data. Refer to the following **Table 6** below for areas within Franklin County where populations have grown or reduced from 2000 to 2010.

Table 6: Franklin County Population Growth/Loss from 2000 to 2010

Population Overview	2010 Census		2000 Census		2000-10 Change	
	Counts	Percentages	Counts	Percentages	Change	Percentages
Total Population	11,549	100%	11,057	100%	492	4.45%

Source: Office of Economic and Demographic Research, August 2016

Section 4: Mitigation Strategy

Section 4: Mitigation Strategy serves as the long-term blueprint for reducing the potential losses profiled in *Section 3: Risk Assessment*. Section 4 begins with a description of the Plan development goals. Goals are broad concepts, which taken together provide a framework for carrying out the Plan development's intent to mitigate or permanently reduce flood risk. The Plan's goals are consistent with other community and State of Florida goals for the affected areas.

After these goals were developed, the Committee reviewed possible activities that could prevent or reduce the severity of the problems describe in Section 3. A systematic review of a wide range of activities was performed by the Planning Committee to measure the benefits and costs of different flood mitigation projects or activities.

Once all potential activities were reviewed, the Planning Committee drafted an Action Plan, consisting of appropriate activities that will permanently reduce the risk of current and future flooding impacts. Activities were chosen based on Franklin County's resources, hazards, and vulnerable properties, as well as, to develop a balanced approach. Activities included measures from all of CRS's floodplain management activity categories.

4.1 Goals

The committee discussed and updated the Plan's goals. Goals were selected on the basis of their ability to address community issues and the vulnerabilities identified in *Section 3 -Risk Assessment*. The Committee identified the following goals to guide the long-term Mitigation Strategy, and discussed the examples provided as evidence that the established goals were reasonable and achievable:

Goal 1 – Establish measures to prevent flooding.

Examples of goal achievement include maintenance programs, stormwater management programs, and flood control structure evaluation programs; does not include dams and levees, as the conditions in Franklin County do not lend themselves to such structures, but does include all other measures that will prevent or reduce future flooding conditions

Goal 2 –Implement Property Protection Activities.

Examples of goal achievement include public outreach and education activities, adopted ordinances for stormwater management, flood damage prevention, engineering, and the adoption and enforcement of floodplain-related regulations, ordinances, building codes, and setbacks, all of which help to alleviate future flooding conditions by strengthening and mitigating buildings against flooding.

Goal 3 – Ensure Natural Resource Protection.

Examples of goal achievement include preservation of the several conservation areas throughout the County, each of which is protected by a restrictive covenant; in addition, the County is actively pursuing the acquisition of additional conservation areas, which will ease future flooding conditions by allowing the natural movement of water throughout portions of the floodplain.

Goal 4 – Enhance Emergency Services readiness.

Examples of goal achievement include ongoing training and exercises, public workshops and seminars, and annual disaster expos to promote public outreach efforts on preparedness, updating of Comprehensive Emergency Management Plan and other emergency operational plans based on after action reports and lessons learned.

Additional achievements include FCEM's use of Nixle, which is an emergency notification system that allows the County to provide emergency information to residents who have registered for such notifications, which helps to move people out of harm's way. Ongoing efforts include the County's efforts to implement a pilot program with the WeatherStem system to develop real time reporting on wind and storm surge conditions so the public can be alerted of any threats or hazards.

Goal 5 – Construct Structural Projects.

Examples of goal achievement include ongoing updates to stormwater systems, cross drains, and culvert projects that are either funded or are pending funding. These structural projects help to alleviate future flooding conditions by providing for or redirecting water flow. As has been stated throughout this Plan development, Franklin County does not build or maintain traditional flood control structures, such as dams or levees.

Goal 6 – Perform Public Information Activities.

Examples of goal achievement include ongoing training and exercises, public workshops and seminars, public service announcements, outreach through social media, radio and television, and annual disaster expos to promote public outreach efforts on preparedness, updating of Comprehensive Emergency Management Plan and other emergency operational plans based on after action reports and lessons learned. Franklin County believes that public education and outreach is a key component to appropriately responding to future flooding conditions, and seeks to educate and inform the public accordingly.

The Committee determined that each of these goals will be beneficial to Franklin County in the management of its floodplains, and that each one would improve future flooding conditions.

4.1 Review of Possible Activities

Based on a thorough review of the comments and suggestions gathered by the interested agencies, individuals, and the Planning Committee, all CRS activity categories were selected for review. These activities were selected for review because of their immediate and direct potential to impact and/or to reduce flood levels, the immediate need for community improvements, natural area preservation, and funding limitations.

4.1.1 Review of Preventive Measure Activities

Franklin County presently uses floodplain mapping and data to produce flood zone determination letters and elevation certificates upon request. Additionally, the County maps or plots repetitive and single flood damaged properties to identify problem areas and inform the general public of vulnerable flood areas.

Open space preservation is an activity that is often accomplished through building demolition and land acquisition. The State of Florida and Franklin County both own open space properties within unincorporated Franklin County. Each respective area has specific land development restrictions associated with them, based on the governing body's laws. As a practice, the Planning Committee works with outside agencies and other conservation groups in an attempt to increase open space acreage when qualified properties are identified within the County's jurisdiction.

In addition, Franklin County implements and maintains a rigorous maintenance schedule, which ensures that flooding will not occur due to issues like clogged storm drains or damaged culverts.

Although they are recognized as a measure to prevent future flooding, Franklin County's conditions do not lend themselves to the construction of dams, levees, or other such flood control structures, and so these types of structures are not part of the County's preventative flood measures.

4.1.2 Floodplain Management Regulatory Activities

Floodplain management regulation is covered through the newly implemented 2013 Franklin County Floodplain Management Ordinance which was developed after the State of Florida's model ordinance. An adopted feature of the State Ordinance is the requirement of one foot of freeboard above the Base Flood Elevation (BFE). The freeboard requirement is applied County-wide within the regulated Special Flood Hazard Area. All structures in Franklin County are required to conform to the appropriate standards established in the Franklin County Zoning Ordinance, the Critical Shoreline District Ordinance, and the Flood Hazard Ordinance, or the Coastal Construction Code Ordinance.

Building codes apply to the construction methods of residential and business structures. Examples of flood damage prevention measures include: the installation of hydrostatic vents within structures with crawl spaces; elevation of utilities and utility components above the BFE for structures located in the AE-Flood Zone; the restriction of structural fill; minimum set back requirements from mean high tide waters; and the space below lowest supporting member must remain open and free of obstruction within VE-Flood Zones. The requirement of elevation certificates on each structure within the Special Flood Hazard Area helps to insure proper construction for appropriate insurance rate determination.

The Franklin County Planning and Zoning Department is responsible for planning the physical growth and future development of the unincorporated areas of the County. In order to fulfill that responsibility, the office updates the rules governing subdivision of property, reviews and revises the zoning laws that regulate the use of property and administers both the Subdivision

Code and the Zoning Ordinance. These regulatory measures reinforce FEMA's No Adverse Impact policy, where the phrase "Do No Harm" was coined. Such policies aid in keeping one homeowner from creating a bad or adverse situation for his neighbor by performing simple home improvement's activities. These policies are reviewed periodically by Franklin County in attempts to improve the program.

In addition, the Planning and Building Department also oversees the Comprehensive Plan for Unincorporated Franklin County and the municipalities of Apalachicola and Carrabelle have developed their own comprehensive plans. The Comprehensive Plan is a community vision document that consists of three parts: the Community Assessment, the Public Participation Plan, and the Community Agenda. The Community Agenda includes a Strategic Plan which contains the community's goals and a list of strategies that the will result in achieving the goals; and a Short Term Work Program (STWP) that identifies who will accomplish the goals, the cost, and a time of completion.

Section 15.5-35 of the Franklin County Storm Water Management Ordinance requires minimum design requirements of conveyance systems to safely convey the 100-year, 24 hour return frequency storm event such that there is no increase in flood elevations, either upstream or downstream. This activity is achieved through the development of drainage canal improvements with increased capacity and flows as well as onsite stormwater management and treatment. The drainage system maintenance program is assisted by acquiring right-of-way areas for the construction of access roads and easements so that obstructions within water ways can be removed. Stormwater management requirements are implemented to maintain pre-runoff conditions and require erosion and sediment control plans.

The County also maintains a Storm Water Management Plan, which describes the following programs and efforts:

Flood Management Capital Improvement Project (CIP)

The County operates a Capital Improvement Program to address structural flood management and drainage issues. As part of this program, the County identifies the various drainage and flooding problems within the County and develops a proposed engineered solution to the problem in the form of a CIP. CIPs include the installation of new structures and the retrofit, upgrade, or replacement of existing, inadequate structures.

Floodplain Management Ordinance

Franklin County currently has a Floodplain Management Ordinance that serves to protect water quality by limiting the impacts that floodwaters can have on the environment. The purpose of the Floodplain Management Ordinance and the flood load and flood-resistant construction requirements of the Florida Building Code are to establish minimum requirements to safeguard the public health, safety, and general welfare and to minimize public and private losses due to flooding through regulation of development in flood hazard areas to: (1) Minimize unnecessary disruption of commerce, access and public service during times of flooding; (2) Require the use of appropriate construction practices in order to prevent or minimize future flood damage; (3) Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials, and other development which may increase flood damage or erosion potential; (4) Manage the alteration of flood hazard areas, watercourses, and shorelines to

minimize the impact of development on the natural and beneficial functions of the floodplain; (5) Minimize damage to public and private facilities and utilities; (6) Help maintain a stable tax base by providing for the sound use and development of flood hazard areas; (7) Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and (8) Meet the requirements of the NFIP for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22.

This ordinance is administered and enforced by the County Floodplain Administrator and is required for participation in the National Flood Insurance Program.

Floodplain Mapping

As part of the Federal Emergency Management Agency's Map Modernization Program, the Northwest Florida Water Management District is administering the FEMA Digital Flood Insurance Rate Maps (DFIRMs) for Franklin County. The County considers the impact to existing floodplains when reviewing and permitting new development per their Flood Damage Prevention Ordinance. County staff will utilize the flood maps for land use planning and site plan review and approval.

Flood Management CIP Land Disturbing Activity Permit

Franklin County has a program to implement CIP projects within the County to improve infrastructure so as to alleviate flooding and provide better service to citizens. County staff, or a contracted consultant, is required to meet the requirements for a Land Disturbing Activity Permit when designing and implementing CIP projects. These requirements include development of Erosion and Sedimentation Control Plans (ESCPs) and Stormwater Management Plans (SWMP) to protect water quality during construction and operation of the CIP.

4.1.3 Review of Property Protection Activities

Building acquisition/demolition is often undertaken as a property protection activity within Franklin County. Although many property owners that have suffered flood damage are interested in the 75% federal match from the Hazard Assistance Grant Program funds, their homes fail to qualify for federal grant funding under FEMA's Benefit-Cost Analysis (BCA). Property Information Cards previously submitted to homeowners that have suffered flood damages typically indicate a lack of interest in participating in the relocation, elevation, or retrofitting of their homes, leaving acquisition as the preferred activity by residents. Property protection activities in repetitive loss areas are addressed below:

- The McKissack Beach area of Carrabelle has several repetitive loss properties and the county discussed the restoration of emergency berms to mitigate flooding issues in these areas. This project will be added to the LMS list and addressed upon available funding.
- The County acquired 7 properties on Alligator Point that were previously designated as repetitive loss properties. These properties were donated to the County and if a beach nourishment project is undertaken, the county intends to use the property as public access to the beach. The County continues to address additional mitigation options for this area

due to flooding vulnerability.

- The County is working with the Florida Forestry Service about possible acquisition of Deseret Ranch which is a 17,000 acre area on the east side of the county between 98 and 319. If acquired, this property will be incorporated into the Tate's Hell State Park and fall under Forestry's management plan.
- The County acquired the site of two former motels including El's Court and the Island View Motel. The County intends to utilize this property for kayak launches to serve as recreational space.
- The KOA campground on the eastern side of the county at Alligator Point is being considered for acquisition by the Florida Forestry Service. If acquired, this property would be converted to open space that would be used for planting pines.

In addition to structural projects for property protection measures, the county has prioritized mitigation measures for repetitive loss and special flood hazard areas within the county through land acquisition, elevation, and relocation efforts. Some of these projects are discussed in more detail in Section 4.3.

Flood insurance is always encouraged to homeowners within Franklin County. A new approach suggested during a Planning Committee meeting is to target those homeowners that currently do not have flood insurance in order to encourage them to obtain a policy. Data from the NFIP Repetitive Loss Update Worksheets was cross referenced with the Franklin County RPL flood maps to isolate and identify those parcels located in the high flood risk areas. The Committee also discussed ongoing efforts to persuade realtors to provide disclosure to potential home buyers interested in purchasing within the 100-year flood zone. The Coastal Training Program Coordinator with the Apalachicola National Estuarine Research Reserve is currently working with the County Floodplain Manager to provide ongoing workshops that address FEMA/CRS requirements to promote floodplain awareness with real estate professionals.

4.1.4 Review of Natural Resource Protection Activities

The State of Florida's model Wetland Protection Ordinance was consulted to review wetland protection activities in Franklin County. The Planning Committee, and County residents as a whole, agree that wetlands are indispensable and fragile natural resources to Franklin County. As such, there exists restrictive land use language written within local ordinances to preserve currently identified wetland areas.

Other wetland protection efforts include Blue Carbon Workshops and Living Shorelines provided by the Apalachicola National Estuarine Research Reserve (ANERR). These workshops are management tools for addressing conservation and restoration of coastal wetlands. The workshops promote public awareness on wetland conservation and restoration and provide education on blue carbon applications which refer to the carbon and other greenhouse gases captured, stored, and emitted by tidal wetlands, salt marshes, sea grasses, mangroves, and other coastal ecosystems. Through these workshops, participants learn about the economics of

blue carbon, the basics of coastal landscape project planning, models, and implementation practices, and the benefits of combining blue carbon projects with tradition conservation and restoration activities.

Erosion and sediment control problems typically become apparent during land disturbing activities. Franklin County aggressively regulates erosion and sedimentation control problems by requiring all staff members that are assigned or associated with construction or land disturbing activities projects to become certified by the Florida Department of Agriculture and Consumer Services. Improving this regulatory activity can be accomplished by increasing public knowledge and awareness and by having increased site inspections. Currently there exist vast campaigns executed by the Apalachicola National Estuarine Research Reserve, County Planning and Building Department, and the County Emergency Management Department to educate the general public. Budgetary constraints, however, limit any increases in personnel for additional onsite inspections, so current levels of inspections will be maintained rather than increased for the foreseeable future.

Natural area preservation programs are intended to protect the highest quality examples of native ecosystems and rare plants and animal species. An example of this area located within Franklin County includes the Apalachicola National Estuarine Research Reserve (ANERR) which encompasses over 246,000 acres. These areas are permanently protected from future development. The County has an ongoing partnership with ANERR relating to natural resource preservation efforts and has incorporated ANERR into their Comprehensive Plan.

Franklin County, through ANERR, currently has a formal natural area restoration plan, which includes the purchase of several conservation areas throughout the County, and are actively seeking to purchase additional property for conservation efforts. The general intent of a natural area restoration plan is to raise awareness of the importance of natural areas and their contribution to the livability of the community and to promote the stewardship of natural areas within the community and oversee a variety of activities that enhance their function and value. One project that was undertaken to promote natural area restoration was the Box-R Wildlife Management Area (formerly the Box-R Ranch) which was a 901 acre area acquired by the Florida Fish and Wildlife Conservation Commission and converted to the Box-R Wildlife Management Area, thereby restoring to a natural area and increasing the natural resource protection within Franklin County. Additional areas on the eastern end of the county around St. Teresa and Bald Point are being considered for possible purchase to promote further natural restoration.

The Planning Committee recognizes that stormwater quality is essential to both the economy and to the quality of life in Franklin County. The Florida Department of Environmental Protection (FDEP) and Northwest Florida Water Management District is actively involved in water quality regulations with enforcement falling to the (name of department). The Department of Public Works enforces the design and construction of water quality infrastructure, based on the Franklin County Stormwater Management Plan, for all development projects in Unincorporated Franklin County. Improving this regulatory component can be accomplished by increasing public knowledge and awareness and by having increased site inspections. There are campaigns to educate the general public, but budgetary constraints limit any increases in personnel, so current effort levels will be maintained for the foreseeable

future.

Franklin County's coastal barrier protection activities fall under the jurisdiction of the U.S. Fish and Wildlife Service, as mandated by the Coastal Barrier Resource Act. Areas so designated were made ineligible for direct or indirect federal financial assistance that might support development, including flood insurance, except for emergency lifesaving activities.

Franklin County currently has defined environmental corridors. An environmental corridor is a continuous system of open space in urban and urbanizing areas, that include environmentally sensitive lands and natural resources requiring protection from disturbance and development, and lands needed for open space and recreational use. Franklin County has a series of open space conservation areas located throughout the County that account for approximately 89% of Franklin County's regulated floodplain areas and are presently credited under the CRS program. The County remains committed to protecting its environmentally sensitive areas and natural resources and has adopted ordinances and Comprehensive Plan restrictions regarding land acquisition and use.

Natural areas, such as woodlands and forest, can deliver the functions of protection or conservation if they remain in their natural state and under good natural ecological conditions or are managed in a sustainable manner. Two such tracts that exist within Franklin County are Tate's Hell State Forest and the Apalachicola National Forest. Franklin County invests in the success of these projects for economic longevity.

Franklin County adopted a Critical Shoreline District Ordinance in 1989 to maintain good water quality by protecting wetlands and by guiding development and land use on adjacent uplands, thereby creating a buffer to reduce the adverse impacts of pollution on freshwater and marine resources.

Other natural resource protection efforts include dedication to the protection, restoration, and stewardship of the Apalachicola River and Apalachicola Bay by a non-profit organization called the Apalachicola Riverkeepers in Franklin County. The Apalachicola-Chattahoochee-Flint River Basin made the 2016 list of *America's Most Endangered Rivers* in the nation due to outdated water management practices by the US Army Corps of Engineers. The Apalachicola River plays a significant role in nourishing the Apalachicola Bay, one of the world's most productive estuaries. This estuary, and the special economy and way of life that it supports, is dependent upon a sustained flow of fresh water from the River mixing with the salt waters of the Gulf of Mexico. The Apalachicola Riverkeeper group is committed to restoring and protecting this vital environmental and economic resource by providing advocacy through legislation, water-sharing agreements, and changes to water management practices of the river systems governed by the US Army Corp of Engineers.

Apalachicola Bay and its drainage basin encompass what can be considered one of the least polluted, most undeveloped, resource rich systems left in the United States. Because of its uniqueness, numerous protective designations have been granted to note the importance of and help protect the Apalachicola system. In 1969, the State of Florida designated Apalachicola Bay as one of eighteen aquatic preserves. In 1979, the lower river and bay system was designated

a National Estuarine Research Reserve (NERR) by the National Oceanic and Atmospheric Administration (NOAA). The State of Florida designated the lower Apalachicola River an Outstanding Florida Water (OFW) in 1979, and included the upper river in 1983. Thus, the ambient water quality of the river at the time of designation serves as the standard that cannot be lowered by activities on or near the water. Due to growing development pressures, in 1985, the State of Florida designated Franklin County an Area of Critical State Concern (ACSC).

In December 2013, the County acquired Early Restoration Funding (RESTORE) from BP through the Natural Damage Recovery Act (NRDA) for the Florida Cat Point Living Shoreline Project. This project addressed living shoreline breakwaters to reduce wave energy, and create salt marsh habitat.

Finally, Franklin County actively seeks to inform residents of the known erosion rates and increasing still water levels that adversely impact Franklin County parcels. Specifically, they seek to inform those current or future property owners of properties that are located adjacent to canals, streams and river beds that are subject to being inundated by flood waters in relatively short periods of time. This information will typically be provided to inquirers of elevation certificates and flood zone determination letters for properties located within the impacted areas. The County seeks to make these property owners aware of potential changes to their property, specifically as it relates to erosion in the area, or the potential for erosion in the area.

4.1.5 Review of Emergency Services Activities

Emergency service activities mainly fall under the domain of the Franklin Emergency Management Agency (FCEM). This agency is directly responsible for health and safety maintenance, hazard threat recognition, hazard warning, and hazard response operations. To a lesser extent, they are also responsible for critical facility protection and post-disaster mitigation actions. FCEM informed the Planning Committee that they are constantly expanding existing services to be even more responsive and to increase current emergency services coverage within the County.

Currently, FCEM utilizes Nixle which works as a community notification system. The system allows early notification by phone, email or both to residents who have previously registered for the notification service concerning hazardous conditions. Additionally, FCEM possess the capability of disseminating early warnings via the internet through social media such as Face Book, Twitter and the County Website. Additionally, the Franklin County's Sheriff's Office also purchased and installed a countywide telephone emergency notification system in 2013 to provide a needed resource for emergency notifications. FCEM also has a County wide siren network, which is used as an emergency warning system and FCEM expects to expand its current siren network by adding more sirens.

4.1.6 Review of Structural Projects Activities

The Franklin County Department of Public Works, in conjunction with the County's contracted engineer has implemented numerous structural projects throughout the County that include channel modifications, stormwater system improvements, cross drain improvements, installation of hydrologic monitoring gauges, the use of structural flood gates, and regular maintenance

schedules. Structural projects are designed to the 50-year storm event for an added measure of flood protection, rather than to the more common 100-year-storm event level. High flood prone areas and frequent flood prone areas are identified and mapped by the Departments of Public Works. During periods of frequent and anticipated heavy rainfall events, the Department of Public Works ensure these areas are checked prior to and immediately after a given storm event. It is also asked that citizens, through various outreach materials and public service messages, report any drainage structure that is obstructed and therefore unable to receive storm and flood waters.

Traditional structural flood control projects (such as levees, floodwalls, and seawalls) have not typically been used within Franklin County, due to the conditions within the County that make these types of structural flood control projects less than feasible or desirable. Franklin County includes beach front properties located on the barrier islands, which are inhabited and often require the need for beach nourishment. The barrier island system of St. George, St. Vincent and Dog Island afford some degree of protection from coastal flooding, but are subject to being overtopped by severe storm surges due to the elevation of the islands.

4.1.7 Review of Public Outreach Activities

Franklin County currently teams with the Cities of Apalachicola and Carrabelle, in addition to the unincorporated areas of Franklin County, the County Planning and Building Department, and the Apalachicola National Estuarine Research Reserve to conduct outreach and education campaigns to residents within the floodplain and to the general public.

These efforts consist of informational workshops, mailings targeted to those citizens living within the floodplain, according to individual address from the property appraiser database. These mailings executed solely by Franklin County through the Planning & Building Department include an information letter about flood insurance, which targets residents within or near repetitive flood loss properties, and letters mailed to insurance agents, realtors, and mortgage lenders. Copies of Flood Insurance Rate Maps (FIRMS), floodplain information, and general map information are placed within the local libraries and other public buildings. Technical assistance is provided to homeowners, real estate agents, and insurance agents through requests for elevation certificates, flood zone determination letters, and general flood history of community neighborhoods. This technical data includes benefits of the natural floodplains, storm water information, water quality and environmental protection educational material, and property protection measures.

Through these mailings to property owners living in or near the repetitive loss areas, the County is working with ANERR and the Planning and Zoning Department to promote awareness about the floodplain hazards and educate those residents about options for mitigating their properties to reduce future loss. The County's goal is to continue working with residents and businesses within the repetitive loss areas to identify effective mitigation options for reducing future claims under the NFIP through ongoing mailings, seminars, workshops, meetings, and other public outreach efforts. Additional outreach efforts by ANERR and the County include workshops and seminars addressing seagrass protection; minimizing impacts, including Leave No Trace; wetland buffers and restoration; dune restoration; non-point source pollution; watershed assessment, stormwater management and low impact development; living shorelines; FireWise, and coastal

hazards including Mapping and Modeling Coastal Inundation and ecological effects of sea level rise; and others.

4.3 Action Plan

The Action Plan is derived from the goals and review of activities listed above. Each flood mitigation action is classified by the goal it advances. Each action item is subject to the benefits it provides, the responsible department(s), project timeline, and funding source. All six CRS categories were chosen to be a part of the Action Plan.

Actions Completed Since 2010 LMS Plan

Since the 2010 Local Mitigation Strategy was implemented, there have been 6 activities that have been implemented to mitigate the risk of flooding for Franklin County. A brief summation of these activities follows

1. **Installation of Water Level Monitoring Guages:** The County utilized mitigation funding to install water level monitoring markers on the Ochlockonee, Crooked, New and Apalachicola Rivers to monitor water levels and address potential flooding issues when water levels rise.
2. **Improvement of Cross Drains:** Flood prevention efforts were enacted through the improvement of cross drains at Mill Road, McIntyre Road, Jeff Sanders Road, Crooked River Road, and New River Road. The project was completed in November 2012 and funded through HMGP.
3. **Storm Surge Protection Along CR 370:** The County is currently working on relocating two road areas along CR 370 (Alligator Point Road) to mitigate against storm surge. The work extends from Tom Roberts Drive to Harbor Circle and areas of Harry Morrison and Island Drive. The county has filed for a project time extension due to pending litigation. This project is ongoing.
4. **Stormwater Prevention in Apalachicola:** This project involves the reduction of Stormwater flooding in Apalachicola in the following areas: Battery Park, Avenue I, Prado Outfall, and on US Highway 98 and 16th Streets. This drainage improvement project is on the DOT 5-year capital project list. The DOT and Preble-Rish have agreed on a resurfacing project on US 98 through Apalachicola and estimates to be complete in 2014. The installation of buffer boxes are currently in progress. Some work has been done on 10th Street and updates on costs are pending discussion at next LMS meeting.
5. **Sea Oat Planting for Erosion Control** – The County acquired \$9,000 in private funding from Duke Energy to plant sea oat vegetation along the county's coastal region to reduce erosion, enhance the formation of sand dunes and protect roads from washouts, primarily along areas in Carrabelle and St. George Island. This project is ongoing.
6. **Install an Updated Water Pump System in Selected Areas of Eastpoint** – A new system and well on Twin Lakes Road was completed in the 2012-2013 timeframe. In addition, two new vacuum stations were concluded. The completion date for the mitigation project was 2014.

7. **Identify Critical Facilities in the County and Hazards Posing Negative Impact:** The County wanted to identify hazards that could have a negative impact on critical facilities after a severe storm event. To date, all critical facilities have been identified and GPS coordinates are completed. Surge maps with 911 data and base study are being evaluated by the Apalachee Regional Planning Council (ARPC).

There are additional mitigation projects included in Franklin County's LMS that are either underway or pending upon funding availability which include the following:

1. **Culvert and Wetland Improvements:** Mitigation efforts to reduce flooding on Alternate US 98 (Gulf Avenue, CR 30A South) and SE 12th Street in Carrabelle are being evaluated for implementation. Studies have been completed by the Carrabelle ECT and the priority is funding for this project. This is currently on the priority list for appeal to BP if funding becomes available. The goal would be to install culverts and conduct restoration efforts on the wetland area known as "frog pond".
2. **Drainage System Improvements in Rio Vista Area:** This project hasn't begun due to further evaluation needed of the drainage study, in addition to available funding, however, if implemented, this project would reduce flooding in the Rio Vista area by installing a drainage system on the north side of the road into Cow Creek and the Ochlocknee River.
3. **Identification of All Flood Prone Properties and Disaster Hazard Zones:** The County's Property Appraiser's Office is working with a company on creating the GIS base mapping to identify all flood prone properties and disaster hazard zones to improve the emergency response time and data collection on damage assessment through the county GIS system. Part of this project was completed in 2011 and 2013 and the baseline maps on the streets and roads to identify for storm surge are in progress. This project is 92% completed.
4. **Installation of Weather/Water and Wind Guages for Warning Notifications:** The County is working with FDOT on a pilot project to install weather, water and wind gauges on all bridges and various points throughout the County to obtain real time data on weather and storm surge conditions.
5. **Marine Street Stormwater Retrofit Project:** The City of Carrabelle received funds from the Northwest Florida Water Management District to implement a stormwater retrofit project that will improve water quality in the Apalachicola Bay watershed and improve inadequate drainage facilities along Marine Street, which serves as an important element for tourism and economic development.

2016 Plan Development Mitigation Action Plan

During the 2016 FMP development process, additional actions were identified that will mitigate the long-term risk of flooding in Franklin County. Implementing preventive flooding methods and public outreach campaigns provide relatively immediate short-term flood relief. A short-term project is one that can be initiated and completed within approximately six months. The long-term flood relief comes from the construction of various structural related projects and

the cooperative efforts of a multi-jurisdictional managed stormwater plan. Structural projects and stormwater management plans often are completed within 1-5 years. Education, mapping, regulations, codes and other administrative activities often have an on-going timeline. Additional information regarding on-going and proposed capital improvement projects in association with the repetitive loss communities can be in the Unincorporated Franklin County Stormwater Capital Improvement Program.

A discussion as to the methodology used to determine the prioritization of these actions can be found at the end of this section. Franklin County's flood mitigation actions for each goal are identified in the table below:

DRAFT

Franklin County Mitigation Action Plan



Goal 1: Establish measures to prevent flooding.

Action 1.1: Preserve open space lands through building demolition and acquisition.

Benefits: Preserving open space lands through building demolition and acquisition can make a valuable contribution to managing surface water run-off and flood prone areas.

Type of Activity: Property protection

Responsible Department: Planning & Building Dept., FDEP

Project Timeline: On-going

Funding Source: Hazard Mitigation Assistance Grants

Prioritization: Moderate

Action 1.2: Regulate construction methods of residential and business structures through the Franklin County Comprehensive Plan.

Benefits: Utilizing building codes to ensure residential and business structures are built to meet specific minimum standards reduces the potential for hazard impacts.

Type of Activity: Floodplain management regulation; preventative activities; property protection

Responsible Department: County Planning & Building Dept., BOCC, FDEP

Project Timeline: On-going

Funding Source: Local funds

Prioritization: High

Action 1.3: Develop methods of stormwater retention to prevent drainage into the bay and rivers.

Benefits: Properly designed stormwater retention systems are effective in preventing erosion and runoff.

Type of Activity: Structural project; preventative activity; natural resource protection

Responsible Department: County Road Dept.; City Water & Sewer Depts., BOCC, Engineering Contractor

Project Timeline: On-going

Funding Source: Hazard Mitigation Assistance Grants and local funds

Prioritization: High

Action 1.4: Implement stormwater management regulations.

Benefits: Development of stormwater management regulations will allow Franklin County to regulate the type of development that would impact stormwater runoff.

Type of Activity: Preventative activities; property protection; natural resource protection

Responsible Department: FDEP, NFWMD

Project Timeline: On-going

Funding Source: Local funds

Prioritization: High

Action 1.5: Maintain drainage systems.

Benefits: Proper maintenance of drainage systems ensures maximum drainage capacity and life of the capital investment.

Type of Activity: Preventative activity; structural projects

Responsible Department: County Road Dept., City Water & Sewer Depts.

Project Timeline: On-going

Funding Source: Local funds

Prioritization: High

Goal 2: Implement Property Protection Activities.

Action 2.1: Acquire/demolition repetitive loss properties.

Benefits: Acquiring/demolition of repetitive loss properties eliminate their risk of flood risk.

Type of Activity: Property protection

Responsible Department: County Planning & Building Dept., FDEP

Project Timeline: On-going

Funding Source: Hazard Mitigation Assistance Grants

Prioritization: Moderate

Action 2.2: Relocate, elevate or retrofit repetitive loss properties.

Benefits: Relocating, elevation or retrofitting repetitive loss properties permanently reduces their risk of flooding.

Type of Activity: Property protection

Responsible Department: County Planning & Building Dept., FDEP

Project Timeline: On-going

Funding Source: Hazard Mitigation Assistance Grants, Cost of Compliance Funding

Prioritization: Moderate

Action 2.3: Encourage the purchase of flood insurance for Franklin County homeowners that currently do not have it.

Benefits: Insurance claims are paid to damage structures even if a disaster is not declared. Insurance reimburses you for all covered building losses up to \$250,000 and \$500,000 for businesses. Contents coverage is also available up to \$100,000 for homeowners and \$500,000 for businesses.

Type of Activity: Property protection; public information activities

Responsible Department: Public Information Office; County Planning & Building Dept., ANERR, Property Appraiser's Office

Project Timeline: Short-term

Funding Source: Local funds

Prioritization: High

Goal 3: Ensure Natural Resource Protection.

Action 3.2: Preserve wetland and natural resource areas.

Benefits: The preservation of wetland and natural resource areas can provide a valuable contribution to managing surface water run-off and ensure the survival of Franklin County's fragile natural systems.

Type of Activity: Natural resources protection

Responsible Department: ANERR, FDEP, Florida Forestry Service, DOACs

Project Timeline: On-going

Funding Source: NOAA grant funding, state programs, BP funds, Local funds

Prioritization: High

Action 3.3: Regulate erosion and sedimentation control problems

Benefits: Regulating construction or land disturbance projects reduces the rate of potential erosion and sedimentation.

Type of Activity: Natural resources protection; preventative activities

Responsible Department: County Planning & Building Dept., FDEP

Project Timeline: On-going

Funding Source: Local funds

Prioritization: High

Action 3.4: Monitor and improve water quality.

Benefits: Monitoring and improving water quality is essential to maintaining and improving the health and economy of Franklin County.

Type of Activity: Natural resources protection

Responsible Department: ANERR, FDEP, Apalachicola Riverkeepers, NFWMD

Project Timeline: Long-term

Funding Source: Local funds or additional grant source

Prioritization: High

Action 3.5: Regulate development within Franklin County's coastal barrier areas.

Benefits: Managing growth within Franklin County's coastal barrier areas reduces the risk of damage from flood, storm surge, and coastal storm events.

Type of Activity: Preventative activities; floodplain management regulation; natural resources protection

Responsible Department: County Planning & Building Dept., FDEP

Project Timeline: On-going

Funding Source: Local funds or additional grant source

Prioritization: High

Action 3.6: Conserve natural and ecological functions.

Benefits: Ensure that natural and ecological resources are not impacted by development and can provide a valuable contribution to managing surface water run-off.

Type of Activity: Natural resources protection
Responsible Department: ANERR, FDEP; Florida Forestry Service
Project Timeline: On-going
Funding Source: Local funds or additional grant source
Prioritization: High

Goal 4: Enhance Emergency Services.

Action 4.1: Integrate the Flood Mitigation Plan into the Comprehensive Emergency Management Plan, local Comprehensive Plans, Stormwater Management Plans, and Capital Improvement Program.

Benefits: Increased ability to implement actions.
Type of Activity: Emergency services; floodplain management regulation; preventative actions
Responsible Department: FCEM, BOCC, Cities of Apalachicola and Carrabelle
Project Timeline: Short-term
Funding Source: Local funds
Prioritization: High

Action 4.2: Minimize the need for rescue and relief efforts associated with flooding

Benefits: Build-back more resilient to future disaster events.
Type of Activity: Emergency services; floodplain management regulations; public information activities
Responsible Department: FCEM, BOCC, County Planning & Building Dept., PIO
Project Timeline: Long-term
Funding Source: Local funds or additional grant source
Prioritization: High

Goal 5: Construct Structural Projects.

Action 5.1: Implement other flood control structures

Benefits: Mitigate stormwater runoff and increase holding capacity.
Type of Activity: Structural projects; natural resources protection, public outreach/education
Responsible Department: County Road Dept., City Water & Sewer Depts., FCEM, ANERR
Project Timeline: Long-term

Funding Source: Hazard Mitigation Assistance Grants, NOAA funding, local funds or additional grant source

Prioritization: High

Goal 6: Perform Public Information Activities.

Action 6.1: Minimize suffering, loss of life, personal injury, and damage to property resulting from a hazardous or emergency situation

Benefits: Educate the public about flood risks, vulnerable areas, and mitigation activities.

Type of Activity: Public information activities; preventative activities

Responsible Department: Franklin County Emergency Management (FCEM), Public Information Office; Apalachicola National Estuarine Research Reserve (ANERR), County Planning & Building Dept.

Timeline: On-going

Funding Source(s): EMPG, NOAA funds, local funds

Project Timeline: On-going

Prioritization: High

Action 6.2: Provide data from which flood prone areas within the County may be identified ensure that potential homebuyers are notified that the property is in a flood area

Benefits: Assist the population in making decisions about the purchasing of property and its flood risk.

Type of Activity: Public information activity

Responsible Department: Public Information Office, County Planning & Building Dept., FCEM, ANERR

Project Timeline: On-going

Funding Source: Local funds or additional grant source

Prioritization: High

Action 6.3: Provide education material on the benefits of natural floodplains, stormwater information, water quality, and environmental protection education.

Benefits: Educate the public about the benefits of natural floodplains, stormwater information, water quality, and environmental protection.

Type of Activity: Public information activities

Responsible Department: Public Information Office, FCEM, ANERR, FDEP, NFWMD

Project Timeline: On-going

Funding Source: Local funds or additional grant source

Prioritization: High

Action 6.4: Implement an outreach campaign to educate residents on flood risks, maps, and mitigation activities.

Benefits: Educate the public about flood risks, vulnerable areas, and mitigation activities.

Type of Activity: Public information activities; preventative activities

Responsible Department: Public Information Office; FCEM, Planning & Building Dept., ANERR

Project Timeline: On-going

Funding Source: Hazard Mitigation Assistance Grants, NOAA grants, local funds or additional grant source

Prioritization: High

Action Plan Prioritization Methodology

Each Planning Committee member was asked to rank each project's priority, in their opinion. Each project was assigned a ranking of Low, Moderate, or High by each Committee member. These rankings were then assigned a numerical value of 3 (High), 2 (Moderate), or 1 (Low). The responses were averaged, and an overall ranking for each project was assigned using the scale below:

High: 11-16 total points

Moderate: 7-10 total points

Low: 0-6 total points

The table on the following page provides details of each ranking that each project received, and the overall ranking assigned, based on the scale above.

Table 7: Flood Mitigation Action Plan

Action	Activity Description	Pam B.	Anita G.	Mike R.	Dan T.	Amy K.	Mark C.	Results
1.1	Preserve open space lands through building demolition and acquisition	Low (1)	Mod (2)	Low (1)	High (3)	Low (1)	Low (1)	Mod (9)
1.2	Regulate construction methods of residential and business structures through building codes	High (3)	High (3)	High (3)	High (3)	Low (1)	Low (1)	High (14)
1.3	Develop stormwater conveyance systems	High (3)	High (3)	High (3)	Mod (2)	Mod (2)	Mod (2)	High (15)
1.4	Implement stormwater management regulations	High (3)	High (3)	Low (1)	High (3)	Low (1)	Low (1)	High (12)
1.5	Maintain drainage systems	High (3)	High (3)	Mod (2)	Mod (2)	High (3)	High (3)	High (16)
2.1	Acquire/demolition repetitive loss properties	Low (1)	Mod (2)	Low (1)	Low (1)	Mod (2)	Mod (2)	Mod (9)
2.2	Relocate, elevate or retrofit repetitive loss properties	Low (1)	Mod (2)	Low (1)	Low (1)	Mod (2)	Mod (2)	Mod (9)
2.3	Encourage the purchase of flood insurance for Franklin County homeowners that currently do not have it	Low (1)	Mod (2)	Mod (2)	Mod (2)	High (3)	High (3)	High (13)
3.1	Preserve wetland and natural resource areas	High (3)	High (3)	High (3)	High (3)	Low (1)	Low (1)	High (14)
3.2	Regulate erosion and sedimentation control problems	High (3)	High (3)	Mod (2)	Mod (2)	Low (1)	Low (1)	High (12)
3.3	Monitor and improve water quality	Mod (2)	High (3)	High (3)	Low (1)	Low (1)	Low (1)	High (11)
3.4	Regulate development within Franklin County's coastal barrier areas	High (3)	High (3)	Mod (2)	High (3)	Low (1)	Low (1)	High (12)
3.5	Conserve natural and ecological functions	High (3)	High (3)	High (3)	High (3)	Low (1)	Low (1)	High (14)
4.1	Implement FMP into other plans	Mod (2)	Mod (2)	High (3)	Mod (2)	Low (1)	Low (1)	High (11)
4.2	Minimize the need for rescue and relief efforts associated with flooding	Mod (2)	Mod (2)	Low (1)	Mod (2)	High (3)	High (3)	High (13)
5.1	Implement other flood control structures	High (3)	High (3)	Mod (2)	Low (1)	Low (1)	Low (1)	High (11)
6.1	Minimize suffering, loss of life, personal injury, and damage to property resulting from a hazardous or emergency situation	High (3)	Mod (2)	High (3)	Mod (2)	High (3)	High (3)	High (16)
6.2	Provide data from which flood prone areas within the County may be identified ensure that potential homebuyers are notified that the property is in a flood area	High (3)	Mod (2)	High (3)	High (3)	Mod (2)	Mod (2)	High (15)
6.3	Provide education material on	High (3)	High (3)	High (3)	High (3)	Mod (2)	Mod (2)	High (16)

	the benefits of natural floodplains, stormwater information, water quality, and environmental protection education							
6.4	Implement an outreach campaign to educate residents on flood risks, maps, and mitigation activities	High (3)	High (3)	High (3)	High (3)	Mod (2)	Mod (2)	High (16)

Post-Disaster Mitigation Policies and Procedures

Post-disaster redevelopment planning was reviewed as a mechanism to ensure that Franklin County establishes policies and procedures for long-term redevelopment and sustainability. According to Florida's Post-Disaster Redevelopment Planning Guidebook, being prepared for the complexity of redevelopment in a compressed timeframe following a major disaster, local officials may struggle with recovery decisions and miss opportunities for public participation in reshaping the community's future. To become more disaster-resilient, local governments should plan for what must happen after rescue and recovery operations have finished in order to return the community to normalcy or perhaps rebuild an even better community. Through the development of a Post-Disaster Redevelopment Plan, local governments can create a long-term recovery and development strategy to implement during the pre- and post-disaster periods in pursuit of a sustainable community. Franklin County accomplishes these goals through the Franklin County Comprehensive Plan dated October 2009. The Franklin County Comprehensive Plan can be reviewed by contacting Franklin Emergency Management Agency at (850) 653-8977 or by assessing the following website <http://www.franklinemergencymanagement.com/contact>

Franklin County also has a post-disaster debris management plan dated May 2014 (including pre-positioned contracts and identified staging areas for debris, which were chosen in consideration of the floodplain which will allow the County to more effectively respond to and recover from future flood events.

Action Items for Mitigation of Other Identified Hazards

A listing of action items for other identified hazards was developed as part of the 2015 Local Mitigation Strategy. Please refer to Appendix B for a listing of those actions.

5. Plan Maintenance


The Franklin County Flood Mitigation Plan is a living document that must be amended or revised as new funding becomes available, as changes in community priorities arise, or as flood risks change. The Franklin County Emergency Management Department is responsible for implementing the Franklin County Flood Mitigation Plan and maintaining adequate stakeholder involvement from the general public and outside agencies and organizations as with the initial meetings. The Planning Committee will assist in evaluating the current status of the plan, suggest project and activity updates and assist in preparing quarterly progress reports that will be used to develop the annual evaluation report submitted to FEMA for recertification. The Plan will be monitored, reviewed, and revised based on annual evaluation reports and updates to the Local Mitigation Strategy.

APPENDIX A:

ADOPTION RESOLUTION (placeholder)

APPENDIX B

PLANNING PROCESS DOCUMENTATION



You're invited to
attend a public
meeting to discuss
the Flood
Mitigation
Assistance Plan
(FMAP) for Franklin
County.

Come prepared to
share your
thoughts on how to
make Franklin
County more storm
resilient

Public Meeting Details:

WHEN: June 8th, 2016
10am to 12pm

WHERE: Apalachicola National Estuarine Research Reserve
108 Island Drive, Eastpoint, FL 32328 (Room C)



Franklin County Flood Mitigation Meeting
June 8, 2016
10am – 12pm
108 Island Drive, Eastpoint, FL (Room C)

PROPOSED MEETING ITEMS

Meeting #1 (6/7/2016)

- Introductions and Purpose
- Flood Survey
- Establish Goals of the Flood Mitigation Plan. See below for examples.
 - Establish measures to prevent flooding (flood control structures, stormwater management programs, etc.)
 - Floodplain management regulatory activities (ordinances for stormwater ordinance, flood damage prevention, engineering)
 - Remove or mitigate all structures in the floodway
 - Implement property protection activities (public outreach and education, ordinances, building codes, setbacks)
 - Maintain natural resource protection (conservation areas)
 - Enhance emergency services (warning systems, reverse 911)
 - Construct structural projects (canal improvement projects, redirecting water flow)
 - Perform public information activities (public outreach mass mailings)
- Identify current capabilities- existing documents, plans, agencies and organizations
- Identify floodplain management regulatory activities- building codes, ordinances, mapping, permitting
- Identify natural resource protection activities- sediment control, preserves, restoration group
- Review emergency services activities- warning systems, outreach efforts
- Review public outreach activities- mailings, website, targeted letters

Meeting #2 (TBD)

- Review of flood mitigation projects and status since 12/15/2015
 - Mitigate storm damage caused by flooding on Alternate US 98 (Gulf Avenue, CR 30A South) and SE 12th Street in Carrabelle.
 - Continue to plant vegetation along the county's coastal region to reduce erosion, enhance the formation of sand dunes and to protect roads from washouts.
 - Reduce flooding in the Rio Vista area by installing a drainage system on the north side of the road into Cow Creek and the Ochlockonee River.

- Protect and improve functioning of wetlands and waterways by control or elimination of invasive plants.
- Protect County Road 370 (Alligator Point Road) from hurricane storm surge.
- Reduce or prevent stormwater flooding in Apalachicola in the following areas: 24th and 25th Avenues, 8th through 10th Streets between J and G, and on US Highway 98 and 12th and 16th Streets.
- Identify all flood prone properties and disaster hazard zones to improve the emergency response time and data collection on damage assessment through the county GIS system.
- Perform a study on the effects of severe hurricanes, high winds, tropical storms, tornadoes and storm surge on low income owner occupied homes.
- Perform a study on the effects of severe hurricanes, high winds, tropical storms, tornadoes and storm surge on businesses that perform essential services to the community.
- Acquire, relocate or elevate repetitive damaged structures throughout the county.
- Identify other areas that are prone to flooding that aren't addressed in the LMS.
- Identify Repetitive Loss Areas in the county (Updated list from the State)
- Provide further details on how these actions will be accomplished. How will you mitigation storm damage caused by flooding? How will you protect and improve wetland function, etc.

Meeting #3 (TBD)

- Continue discussion about ways to complete the actions.

Meeting #4 (TBD)

- Population Trends and New Development
- Are there actions for each goal?

Individual Committee Member Review

- CDR Maguire to email a draft plan to committee members for review and comment

Public Comment Period (at least 2 weeks)

- Make available in many locations for the public to provide comments.

Present to County Board of Commissioners

- Present draft hazard mitigation plan to Franklin County Board of Commissioners for their input and approval

Adopt the Plan

FRANKLIN COUNTY FLOOD MITIGATION ASSISTANCE PLAN

DATE: WEDNESDAY, JUNE 8, 2016

10AM-12PM

LOCATION: APALACHICOLA NATIONAL ESTUARINE RESEARCH RESERVE

108 ISLAND DRIVE, EASTPOINT, FL (ROOM C)

1ST PUBLIC PLANNING MEETING MINUTES

A formalized planning meeting was held in Franklin County, Florida on Wednesday, June 8, 2016 to discuss the planning process for the Flood Mitigation Assistance Plan being developed, address current mitigation projects and initiatives and discuss the importance of public outreach. The issues discussed, committee makeup, and future planning meetings are addressed below.

ATTENDEES:

NAME	TITLE/ORGANIZATION
Misty Berryman	CDR Maguire, Mitigation Planner
Carissa Lord	CDR Maguire, Certified Floodplain Manager
Pamela Brownell	EM Director, Franklin County Emergency Management
Tress Dameron	Franklin County Emergency Management
Sharon Sleeper	Citizen of Franklin County
Thomas Sadler	Franklin County Dept of Public Works
Lamar Hardy	Franklin County Road Dept.
Anita Grove	Apalachee National Estuarine Research Reserve
Clinton Davis	Florida Forestry Service
Fred Vogt	Apalachicola Planning & Zoning Board
Lance Clemons	Legislative Aide to State Rep. Beshears
Joey Taranto	Florida Forestry Service
Linda Clark	Citizen of Franklin County
Dan Tonsmeire	Apalachicola River Keepers
Emily Jackson	Apalachee National Estuarine Research Reserve

DISCUSSION TOPICS:

- **Task Force Committee Composition and Agency/Organization Stakeholder List** – Discussed current composition of Task Force Committee makeup to ensure good representation of the committee members. Also addressed makeup of Agency/Organization Stakeholder list for plan dissemination and feedback. Committee will review both lists and verify makeup for both.
- **Review of Local Mitigation Strategy Project List and Status Updates on Flood Hazard Specific Items:** The Committee reviewed all the LMS projects that pertained to flooding, coastal/riverine erosion and storm surge. The table below addresses the items discussed and the follow up action for each.

LMS Priority#	Description of Project	Type of Hazard	Agency Responsible for Implementation	Status/Follow Up Action
3	Mitigate storm damage caused by flooding on Alternate US 98 (Gulf Avenue, CR 30A South) and SE 12th Street in Carrabelle.	Floods	Franklin County Road Dept.	CDR will follow up with Brenda with the City of Carrabelle to determine project status
4	Replace the components on the Eastpoint sewer lift station.	All Hazards	Eastpoint Water & Sewer District	Following up on possible legislative funding for this project
5	Continue to plant vegetation along the county's coastal region to reduce erosion, enhance the formation of sand dunes and to protect roads from washouts.	Coastal Erosion	Franklin County Emergency Management	Duke Energy donated \$10k for sea oats which are being planted along the coastal regions to provide erosion control. Pam is following up with Travis on this item
6	Reduce flooding in the Rio Vista area by installing a drainage system on the north side of the road into Cow Creek and the Ochlockonee River.	Floods	Franklin County Road Dept.	Discussing feasibility of project due to flooding frequency and mitigation options
10	Identify the critical facilities in the county and review the hazards that could have a negative impact on them after a severe storm event. Evaluate on incorporating and relevant data into the GIS system.	All Hazards	Franklin County Appraiser's Office	The Sheriff's Office and Property Appraiser's Office are working to complete baseline maps
12	Protect and improve functioning of wetlands and waterways by control or elimination of invasive plants.	Coastal & Riverine Erosion	Franklin County Emergency Management	Conservation Corp & Forestry Service working to address eradication of invasive species; current efforts are underway to educate landscapers on what species of plants not to plant. Workshop planned for landscapers.
13	Protect County Road 370 (Alligator Point Road) from hurricane storm surge.	Hurricanes, Tropical Storms, Storm Surge	Franklin County Road Dept.	There was extensive discussion on this topic due to the frequency of flooding and erosion issues in that area. Addressed mitigation options and cost feasibility; County indicated they've purchased a number of residences at Alligator Point to reduce # of structures in the SRL area; CDR working with County to acquire more information on acquisition properties

LMS Priority#	Description of Project	Type of Hazard	Agency Responsible for Implementation	Status/Follow Up Action
14	Reduce or prevent stormwater flooding in Apalachicola in the following areas: 24th and 25th Avenues, 8th through 10th Streets between J and G, and on US Highway 98 and 12th and 16th Streets.	Floods, Storm Surge	Franklin County Road Dept.	CDR is following up with the City of Apalachicola and Anita Groves (ANERR) to determine project status before next meeting
16	Identify all flood prone properties and disaster hazard zones to improve the emergency response time and data collection on damage assessment through the county GIS system.	Floods, Storm Surge	Franklin County Appraiser's Office	This item is being addressed through the baseline maps being completed. 92% done.
20	Retrofit the Carrabelle City Hall Complex.	Hurricanes, Tropical Storms, Tornadoes, High Winds	Franklin County Emergency Management	The City of Carrabelle is seeking property for relocation
21	Build a new EOC in central Franklin County possible location off of Hwy 65	All Hazards	Franklin County Emergency Management	County is looking into funding options to relocate due to facility vulnerability to Cat 2+ storm
22	Raise the Pine Log Bridge on Highway 67 on both sides in Franklin and Liberty Counties.	All Hazards	Franklin County Road Dept.	County has raised approaches but have to address low lying areas on both sides of bridge; deemed critical road due to being evacuation route; would involve further discussion with Liberty County on road/bridge improvements; CDR will follow up with FCEM and Rhonda to determine future actions
24	Perform a study on the effects of severe hurricanes, high winds, tropical storms, tornadoes and storm surge on low income owner occupied homes.	Hurricanes, Tropical Storms, Tornadoes, High Winds, Storm Surge	Franklin County Emergency Management	Outreach study was conducted in 2014 by ARPC; CDR is following up with ARPC on outcomes
25	Perform a study on the effects of severe hurricanes, high winds, tropical storms, tornadoes and storm surge on businesses that perform essential services to the community.	Hurricanes, Tropical Storms, Tornadoes, High Winds,	Franklin County Emergency Management	This study was completed by the ARPC; CDR is following up with ARPC on determinations noted in the study

LMS Priority#	Description of Project	Type of Hazard	Agency Responsible for Implementation	Status/Follow Up Action
		Storm Surge		
26	Acquire, relocate or elevate repetitive damaged structures throughout the county.	Floods, Storm Surge	Franklin County Emergency Management	County continues to identify areas of Severe Repetitive Loss for possible acquisition, relocation or elevation due to flood hazard. County has acquired El's Court and converted to recreational use to minimize future damage & costs. Discussed additional options for buyouts for open space in perpetuity and possible funding options; Ongoing discussion; CDR will work with County to identify vulnerable neighborhoods

- **Other Flood Related Capabilities:**
 - **Stormwater Retention Studies:** Discussed the Stormwater retention studies being conducted by the City of Apalachicola and follow up on status of that study
 - **Floodplain Ordinances/Codes:** Addressed need for future changes to Floodplain Management Ordinance, City Codes of Ordinance, permitting and code enforcement to address developments, improvements and land use planning
 - **Hydrology Studies for Flood Mitigation** – Clint Davis with the Florida Forestry Service indicated that approximately \$5m in BP funding was allocated for hydrology studies over the next 5-6 years in Tate's Hell Forest. The study will address high priority basins around the East Bay and address flood mitigation options for managing natural sheetflow.
- **Expansion of Current Public Outreach Efforts** – The importance of public outreach efforts was discussed extensively in terms of what outreach is being conducted and assessing what additional outreach is needed to promote public awareness within the County. The following areas were addressed:
 - **Flood Survey:** CDR Maguire produced a Flood Survey for Franklin County residents and business owners to complete that would help the Flood Mitigation Task Force identify more ways to make the community safer and identify flood prone areas in the county not already addressed in the LMS. A link to this survey has been provided on the County's website and social media. Hard copies will be placed in the EOC, Public Library and other frequented venues around the county. The information obtained from the survey will be used as a planning tool for the Flood Mitigation Plan.
 - **Delivering Disaster Resistant Programs:** Item #17 of the LMS Project List addressed the goal of developing and delivering Disaster Resistant programs for the business and residential communities on "how to prepare" for future disasters; The Emergency Management

Department, in conjunction with the ARPC, are providing ongoing programs and distributing materials on how to prepare for future disasters to the residential and business community.

- **Workshops/Public Awareness:** Anita Grove with the Apalachicola National Estuarine Research Reserve has been providing workshops to promote public awareness with the residential/commercial sectors to address a number of issues including CRS process and requirements, coastal property and business sector mitigation opportunities, and resiliency building activities within the County
- **Floodplain Disclosures:** Anita Grove is working with realtors with the goal of providing disclosure to potential homeowners when the property falls in a floodplain
- **Continuing Public Awareness Outreach Initiatives:** A number of other outreach efforts in addition to current efforts by the County were discussed and include the following:
 - In the past, the Northwest Florida Water Management District provided brochures to educate the public on permitting, ordinances, floodplain issues, etc. Dan Tonsmeire with the Apalachicola River Keepers addressed revisiting this option to promote public outreach
 - Discussed involving the business sector through promotion of flyers and brochures in businesses, the public library and other venues where people congregate regularly

FINAL ITEM:

Discussed the next planning meeting & agenda: Tuesday, June 28th, 10am-12pm

Location: Apalachicola National Estuarine Research Reserve, 108 Island Drive, Eastpoint, FL (Room C).

The proposed agenda includes:

- Provide follow up received from LMS project list discussion
- Provide results to date of flood survey and flood prone areas identified in the survey not included in LMS
- Address repetitive loss areas in the county and mitigation strategies

Room C

[illegible]



Franklin County Flood Mitigation Meeting
July 7, 2016
1:30-3:30pm
108 Island Drive, Eastpoint, FL (Room C)

PROPOSED MEETING ITEMS

Meeting #2 (7/7/2016)

- Brief recap of 6/8 meeting and follow up items
- Flood survey results and identification of other flood prone areas
- Discussion on status updates to LMS project list
- Identification of flood prone and Repetitive Loss Areas in the county

Meeting #3 (TBD)

- Discuss action plan for addressing flood prone and repetitive loss areas by addressing how these actions will be accomplished, how the county will mitigate storm damage caused by flooding, and how they'll protect and improve wetland functions, etc.
- Provide further details on how these actions will be accomplished. How will you mitigate storm damage caused by flooding? How will you protect and improve wetland function, etc.
- Continue discussion about ways to complete the actions.

Meeting #4 (TBD)

- Population Trends and New Development
- Are there actions for each goal?

Individual Committee Member Review

- CDR Maguire to email a draft plan to committee members for review and comment

Public Comment Period (at least 2 weeks)

- Make available in many locations for the public to provide comments.

Present to County Board of Commissioners

- Present draft hazard mitigation plan to Franklin County Board of Commissioners for their input and approval

Adopt the Plan

FRANKLIN COUNTY FLOOD MITIGATION ASSISTANCE PLAN

DATE: THURSDAY, JULY 7, 2016

1:30-3:30PM

LOCATION: APALACHICOLA NATIONAL ESTUARINE RESEARCH RESERVE

108 ISLAND DRIVE, EASTPOINT, FL (ROOM C)

2ND PUBLIC PLANNING MEETING MINUTES

A formalized planning meeting was held in Franklin County, Florida on Thursday, July 7, 2016 to follow up on discussion items from the June 8th planning meeting, continue addressing elements of the planning process, discuss ongoing public outreach efforts and address additional flood mitigation issues for repetitive loss areas. The issues discussed and future planning discussions are described below.

ATTENDEES:

NAME	TITLE/ORGANIZATION
Misty Berryman	CDR Maguire, Mitigation Planner
Carissa Lord	CDR Maguire, Certified Floodplain Manager
Pamela Brownell	EM Director, Franklin County Emergency Management
Tress Dameron	Franklin County Emergency Management
Anita Grove	Apalachicola National Estuarine Research Reserve
John & Newill Walls	Carrabelle residents

DISCUSSION TOPICS:

- **Follow Up from June 8th Meeting:** – Provided a brief follow up of discussion from June 8th meeting including items relating to planning process, LMS project list overview, public outreach efforts, and determination of additional flood prone areas identified through flood surveys.
- **Flood Survey Results/Public Outreach** – Provided follow up of flood survey results from 25 survey respondents. Additional surveys were completed at the Apalachicola City Commission meeting on Tuesday, July 5th when Misty Berryman, the CDR Maguire Mitigation Planner, attended the meeting to provide an overview to the Commissioners and public on the FMAP planning process, public outreach efforts, and flood survey benefits. In order to promote outreach efforts and public input for the flood survey, the City agreed to post a link to the flood survey on its website. The Committee also discussed correspondence from Dennis Winterringen, a member of the Franklin County Board of Adjusters who provided valuable input into flooding issues in Apalachicola, including needed improvements to stormwater drainage system near block 60 at the corner of 8th and Avenue G. He also addressed stormwater issues in the old river channel where the City's historic district is located, in addition to drainage ditch issues affecting the Hillside neighborhood ("the Hill"). In discussion of stormwater management issues, Anita indicated that state provided \$6m in funding for stormwater management studies and improvements and will assist with follow up on that project.
- **Discussion of Repetitive Loss Properties:** The Committee discussed the 129 repetitive loss properties on record with FEMA in 2013 using cross sections of flood maps and addressed current identification of 97 RPLs to determine what structures have been mitigated and what mitigation options are available to remaining RPL structures. When addressing the 129 RPLs, Pam indicated this was likely

due to damage from TS Debby in 2012. This discussion relates to Item #26 of the LMS project list. CDR Maguire and EM Director Pam Brownell will work with Amy Kelly, County Floodplain Manager and Mark Cureton, County Planner to address RPL properties and current status.

- During the discussion on repetitive loss areas, the residents of Carrabelle attending the meeting expressed their concerns for flooding issues near McKissack Beach and inquired about potential mitigation options. The Committee determined that the most effective option would be to restore the berm and would add this item to the LMS project list and determine funding availability for completing the project. This project was addressed for consideration on the BP funding project list.

LMS Priority#	Description of Project	Type of Hazard	Agency Responsible for Implementation	Status/Follow Up Action
26	Acquire, relocate or elevate repetitive damaged structures throughout the county.	Floods, Storm Surge	Franklin County Emergency Management	County continues to identify areas of Severe Repetitive Loss for possible acquisition, relocation or elevation due to flood hazard. County has acquired El's Court and will convert to recreational use to minimize future damage & costs. Discussed additional options for buyouts for open space in perpetuity and possible funding options; Ongoing discussion

- **Stormwater Improvement Projects** – The Committee addressed stormwater drainage improvement projects to mitigate flood issues for the City of Apalachicola and the current status of those projects. The city just completed the Battery Park Stormwater Project by the engineering firm Dewberry. Other remaining stormwater drainage and water quality improvement projects include 98th and 16th, Prado project and Avenue I. Misty Berryman, the CDR Mitigation Planner is following up on the status of these projects.
- **Expansion of Current Public Outreach Efforts** – Addressed outreach efforts to raise flood awareness to residents living in or around repetitive loss areas, in addition to residents living in proximity to those areas. County will utilize letters disseminated to residents in or around repetitive loss areas by Planning and Building Department to conduct outreach efforts and educate homeowners on options for mitigating their properties, including, but not limited to utilizing cost of compliance funding for current policyholders. Anita Groves (ANERR) indicated she'd work with Amy Kelly, County Floodplain Manager/CRS Program Coordinator to provide seminars/workshops for public outreach efforts with repetitive loss/SFHA property owners. This will remain an ongoing effort.

FINAL ITEM:

Discussed the next planning meeting & agenda which will be linked with upcoming LMS planning meeting at the Franklin County EOC on August 11, 2016 at 10am
The proposed FMAP agenda for the upcoming meeting includes:

- Follow up on Repetitive Loss Areas reported to FEMA and mitigated properties. Identify how the county will mitigate storm damage caused by flooding, and how they'll protect and improve wetland functions, etc.
- Discussion of current mitigation capabilities

DRAFT

[illegible]

Franklin County Flood Mitigation Assistance LMS Priority Project List (2015)

	Jurisdiction	Lead	Type of Flood Hazard Mitigated	Benefit of Mitigation	Est. Cost	Source of Funding	Time Frame	Current Status
Mitigate storm damage caused by flooding on Alternate US 98 (Gulf Avenue, CR 30A South) and SE 12 th Street in Carrabelle.	City of Carrabelle	Franklin County Road Dept.	Storm surge and riverine	Protect structures in flood prone areas	TBD	HMGP, Possible funds through BP	Within a 5 Year Timeframe	Currently on the priority list for appeal to BP if funding becomes available.
Replace the components on the Eastpoint sewer lift station.	Town of Eastpoint	Eastpoint Water & Sewer District/Billy Fuentes	Storm surge	Reduce systems failures, improving the health and safety of residents and surrounding waterways	\$300K	Legislative	Within a 1 year timeframe	County continues to seek legislative funding
Continue to plant vegetation along the county's coastal region to reduce erosion, enhance the formation of sand dunes and to protect roads from washouts.	All jurisdictions in Franklin County	Franklin County Emergency Management	storm surge	Create additional dune habitat to absorb wave energy, protect Alligator Point evacuation route.	TBD	US Wildlife	Within a 5 year timeframe	Progress on planting vegetation on the coastal regions of the county, however this is an on-going project that will continue to improve through the years.
Reduce flooding in the Rio Vista area by installing a drainage system on the north side of the road into Cow Creek and the Ochlocknee River	Unincorporated Franklin County	Franklin County Road Department	Stormwater, riverine	Protect structures from flood damages.	TBD	TBD	Within a 5 year timeframe	Funding, need to evaluate drainage study and determine feasibility
Identify the critical facilities in the county and review the hazards that could have a	All Jurisdictions in Franklin County	Franklin County	All	Identify vulnerabilities so that	TBD	TBD	N/A	All critical facilities have been identified and GPS coordinates are

	Jurisdiction	Lead	Type of Flood Hazard Mitigated	Benefit of Mitigation	Est. Cost	Source of Funding	Time Frame	Current Status
negative impact on them after a severe storm event. Evaluate on incorporating and relevant data into the GIS System.		Appraiser's Office		appropriate actions can be taken to improve resiliency.				completed. Surge maps with 911 data and base study is currently being completed by the ARPC.
Control or elimination of invasive plants.	All Jurisdictions in Franklin County	Franklin County Emergency Management	All	Protect and improve the functioning of wetlands and waterways	TBD	TBD	Within a 5 year timeframe	Currently seeking project proposals for funding; Conservation Corp and FL Forestry Service are involved in these efforts. Some work has been started. Efforts include workshops for landscapers and large property owners to provide awareness of what species not to plant
Protect County Road 370 (Alligator Point Road) from hurricane storm surge.	Unincorporated Franklin County- Alligator Point	Franklin County Road Department	storm surge	Improve resiliency of an evacuation route	TBD	FEMA	Within a 5 year timeframe	The county is currently working on relocating two road areas with FEMA funds. The county has filed for a time extension for part of the project is in litigation. This is an on-going project for the county.

	Jurisdiction	Lead	Type of Flood Hazard Mitigated	Benefit of Mitigation	Est. Cost	Source of Funding	Time Frame	Current Status
Reduce or prevent storm water flooding in Apalachicola in the following areas Battery Park, Avenue I, Prado Outfall, and on US Highway 98 and 16th Streets.	City of Apalachicola	Franklin County Road Department	Stormwater	Protect structures, reduce flood insurance claims	TBD	TBD	Within a 1 year timeframe	This drainage improvement project is on the DOT 5-year capital project list. DOT and Preble-Rish have agreed on a resurfacing project on US 98 thru Apalachicola. The installation of buffer boxes are currently in progress-some work has been done on 10 th St.
Identify all flood prone properties and disaster hazard zones	All Jurisdictions in Franklin County	Franklin County Appraiser's Office	All	Improve the emergency response time and data collection on damage assessment through the county GIS System.	TBD	TBD	This project is 92% completed.	Franklin County Appraiser's Office has been working with an outside company on creating the GIS base mapping. Part of this project was completed in 2012 and 2013. The baseline maps on the streets and roads to identify for storm surge in progress.
Retrofit the Carrabelle City Hall Complex	City of Carrabelle	Franklin County Emergency Management	All	Protect critical infrastructure and records	TBD	HMGP	Within a 5 year timeframe	Funding; City is seeking new property for relocation

	Jurisdiction	Lead	Type of Flood Hazard Mitigated	Benefit of Mitigation	Est. Cost	Source of Funding	Time Frame	Current Status
Build a new EOC in central Franklin County possible location off of Hwy 65	All Jurisdictions in Franklin County	Franklin County Emergency Management	All	Better operational capacity if located to a more secure, dryer area	TBD	TBD	Within a five-year timeframe	Funding-Not safe
Raise the Pine Log Bridge on Highway 67 on both sides in Franklin & Liberty Counties	Unincorporated Franklin County	Franklin County Road Department	riverine	Allow for evacuation during times of high water.	TBD	TBD	Within a five-year timeframe	Requires discussion between Franklin & Liberty County -both counties have to agree on raising the bridge; Hwy 67 critical infrastructure as an evacuation route for county
Perform a study on the effects of severe hurricanes, high winds, tropical storms, tornadoes and storm surge on low income owner occupied homes.	All Jurisdictions in Franklin County	Franklin County Emergency Management	All	Identify and prioritize mitigation needs of low income areas	TBD	TBD	Within a 5 year timeframe	Contingent upon funding availability
Perform a study on the effects of severe hurricanes, high winds, tropical storms, tornadoes and storm surge on businesses that perform essential services to the community.	All Jurisdictions in Franklin County	Franklin County Emergency Management	All	Identify and prioritize mitigation needs of local businesses	TBD	TBD	Within a 5 year timeframe	ARPC got a grant to complete this project.
Acquire, relocate, or evaluate repetitive damaged structures throughout the county.	All Jurisdictions in Franklin County	Franklin County	TBD	Reduce flood losses and damages.	TBD	FMAP or HMGP	Within a 5 year timeframe	Funding-County acquired some houses and EL Court and

Jurisdiction	Lead	Type of Flood Hazard Mitigated	Benefit of Mitigation	Est. Cost	Source of Funding	Time Frame	Current Status
	Emergency Management						intends to put in kayak launches. Identifying additional properties for mitigation

DRAFT



Local Mitigation Strategy Minutes 08/11/2016

(This includes flood related and other projects)

Project #	Project Description
Completed	In 2016- Franklin County Sheriff's office discontinued the "Code Red" notification system. Franklin County Emergency Management has started using and maintaining Nixle. The State is going to a state wide notification system and using Everbridge- Nixle is a subsidiary of the Everbridge notification.
Completed	Emergency Operations Center Wind Retrofit- Completed in March 2015.
Completed	Franklin County Jail Wind Retrofit- Completed in August 2015
1	Mitigate storm damage caused by flooding on ALT US 98, CR 30A and SE 12 th St Carrabelle.- Changed to the City Road Department- Waiting on BP money to complete-Still waiting on Funding
2	Replace the Components on the Eastpoint Sewer Lift Station- No representative from EWS-Alan is researching and awaiting on money availability-

3	<p>Continue to plant vegetation along the county's coastal region to reduce erosion, enhance the formation of sand dunes and to protect roads from washouts-This is an ongoing project</p> <p>Anita Grove from ANEER is having workshops to educate residents on beach erosion-Grant from Duke Energy to plant \$9000.00 worth of Sea Oats throughout the county-mainly Carrabelle area and St George Island</p>
4	<p>Reduce flooding in the Rio Vista area by installing a drainage system on the north side of the road into Cow Creek and Ochlockonee River-</p> <p>Cow Creek Crosses Crooked River and Clint Davis from FFS can provide hydro-information for study</p>
5	<p>Work with the Florida Forest Service on evaluating the defensible space on all the critical facilities throughout the county-</p> <p>The critical facilities list has been given to Clint Davis and this is an ongoing project. Todd from Florida Forest Service will give us the documentation for this project</p>
6	<p>Work with Florida Forest Service and develop and participate in the Community Wildfire Protection Plans (CWPP) to reduce wildfires risks within the Wildland Urban Interface. And inform public of the Firewise building and landscape design principles and the Ready, Set, Go Program-</p> <p>This is an on-going project for the last 3 yrs. Todd Schroder will forward plan and projects. All Local Fire Departments were invited and there was no representation from any of the departments</p>

7	<p>Work with Florida Forest Service in offering forest protection education in the county's schools.-</p> <p>This is an on-going project. FFS visits all county schools and gives presentations to all of the county's schools.</p>
8	<p>Identify the critical facilities in the county and review the hazards that could have a negative impact on them after a serve storm event. Evaluate on incorporating and relevant data into the GIS system-</p> <p>Richard from the state has the information and is working on GIS</p>
9	<p>Improve efforts in debris removal of dead, dying or diseased trees and branches next to the road and highways-</p> <p>On-going project – Duke Energy maintains the power lines / Transifield maintains the road ways- Listed as a Franklin County EM project- should be Franklin County Road Department/ Duke Energy- This is an ongoing project</p>
10	<p>Protect and improve functioning wetlands and waterways by control or elimination of invasive plants-</p> <p>Anita with ANEER will email the research they are conducting-Evasive Plant Class being held Sept 15th- Clint with FFS will update a complete list-</p> <p>City of Carrabelle had an issue with lily pads in water retention pond-</p>
11	Protect County Road 370 (Alligator Point Road) from storm surge-

	Alan Pierce is working on this project- It continues to be an on-going project
12	Reduce or prevent stormwater flooding in Apalachicola in the following areas: 24th St and 25th Ave , 8th thru 10th St between J and G and 12th and 16th Streets- Listed as a Franklin County Road Department Project- needs to be amended to City of Apalachicola Road Department Project. Will contact the City of Apalachicola for an update on this project- No representative from the City was available to give information on this project.
13	Construct a new Fire Station in Alligator Point- Fire Chief for Alligator Point was invited but we do not have an update on this project.
14	Identify all flood prone properties and disaster hazard zones to improve the emergency response time and data collection on damage assessment through the county GIS system- Franklin County EM is currently working a project with grant funds. FMAP to identify all flood prone and repetitive loss properties and mitigation options
15	Develop and Deliver Disaster Resistant programs for the business and residential communities on “how to prepare” for future disasters- ARPC/ (Denise Imbler- Rosalyn Kilcollins were working on this project)- Franklin County EM held a Disaster Expo to educate the whole community on June 1 2016. This is an ongoing project
16	Conduct Community Emergency Response Team (CERT) training for Franklin County residents- On-going project. CERT is actively recruiting members 25 members currently and actively recruiting
17	Retrofit the FSU Marine lab buildings- No representation at the meeting from FSU marine lab- Jennifer Daniels will contact the FSU marine lab and inquire on the status of this project.

20	Retrofit the Carrabelle City Complex- Didn't have the match to complete the project. The City may be relocating- we are deferring this project because the funding will not be available
21	Build a new EOC (Public Safety Building) located Central Franklin County possible location on Hwy 65 – Land possibly available on next to Sheriff's Office- Commissioner Parrish is lobbying for BP money to be used for this project.
22	Raise the Pine Log Bridge road on Hwy 67 on both sides of bridge in Franklin and Liberty Counties- Not Completed- Conference with Rhonda (Liberty County EM) to determine if the project is feasible for both counties.
23	Identify public and private school facilities that are in need of wind retrofit- Identified ABC school/1 st Baptist School/ Franklin County School. Provided the above with application to apply last year
22	Perform mitigation on efforts on residence homes against severe hurricanes, high winds , tropical storms, tornadoes and storm surge on low/moderate income owner occupied homes- Franklin County EM applied and received a grant to wind retrofit low to moderate income homes in the Franklin County area- Currently looking at 17 homes to wind retrofit within the county. Grant is for 233,000 this year and 198,000 for next year. Remove the word study.
23	Perform a study on the effects of severe hurricanes, high winds, tropical storms, tornadoes, and storm surge on businesses that perform essential services to the community- Denise Imbler is working on a similar project- Gail Leek stated that she would follow up with her

	and obtain more information on this study. Members mentioned the project has fallen through due to funding.
24	Acquire, relocate, or elevate repetitive damaged structures throughout the county- Repetitive loss list needs to be provided from the planning and zoning department- Amy indicated that there was a home on Dog Island that was acquired using this method.
25	Install sirens in various points throughout the county- Completed project- Donnie Wilson Ball Park Apalachicola-Franklin County High School Eastpoint-Carrabelle RV Park Carrabelle- sirens installed and utilized
26	Install tornado shelters throughout the county- Looking for a funding source to complete this project- RV parks in area have no place to shelter in the event of a Tornado
27	Install generators at the 3 lift stations at the Eastpoint Water Sewer- Funding is an issue. Eastpoint Water and Sewer are exploring options for this project
28	Build a new Wastewater Treatment Plant in Eastpoint- Funding is an issue The plant is 45 years old and is coming to the end of its cycle.
29	Install Weather/ Water and Wind gauges on all bridges and various point in Franklin County- Franklin Count EM is exploring options on placing a gauge on the bridge to obtain real time data on the weather and storm surge
30	Update and Enhance communications equipment in Franklin County- First Responders/FCSO having difficulty getting radio coverage on West side of county- EM is evaluating the antennas on

	their tower
31	Restore the sand dunes at Miccisk Beach- Restore the sand dune to prevent flooding of Hwy 98 and the homes located in that area.
32	Institute Flag system/Display board for beaches- Place flags/ display board to warn swimmers against rip tides and other hazards
33	Storm Water Project for Carrabelle- address the storm water issues that are causing flooding throughout Carrabelle
	DELETED PROJECTS
x	Inspect septic tanks for low-income homeowners and abate failing systems- This project was deleted in Nov 2013 meeting
x	Purchase and install smoke alarms in low income homes- This project was deleted in Nov 2013 meeting – update – Red Cross could possibly assist residents with this project
x	Set aside a portion of “in lieu of taxes,” funding received by the Franklin County School District from the Florida Division of Forestry for a college forestry scholarship for students of Franklin County- FFS gives \$147,000 to the Franklin County School however there is no record of a scholarship being offered to FCS students. Discussion on what they do with the funds?
x	Require flood hazard disclosure in deed of sale or transfer of improved or unimproved of real property-

	Deleted in 2014 LMS meeting due to must be done by legislation
--	--

DRAFT

APPENDIX C

PUBLIC OUTREACH/EDUCATION



28 Airport Road
Apalachicola, FL 32320
850-653-8977
Em1frank@fairpoint.net

2nd ANNUAL DISASTER EXPO

Saturday June 4, 2016

10am – 3pm

FREE - FUN & FOOD

- Learn About Disaster Preparedness
- Get your Re-Entry Tags
- Tour the Franklin County EOC & Meet our Staff
- Win Prizes

Get Prepared for Hurricane Season



KIDS Get a PLAN!

Disaster Expo Handout on Flood Awareness

Franklin County Flood Awareness

Did You Know?

- Floods are the #1 natural disaster in the United States.
- Homeowners insurance does not cover flood damage.
- Franklin County is 544 square miles. 89% is in a regulatory flood zone.
- Only 25% of the population in Franklin County has flood insurance.



**Are you
prepared?**

The Federal government paid more than \$117 million in flood insurance claims to all Florida policy holders in 2014.

With their current voluntary participation in the Community Rating System program, Franklin County is able to offer residents up to **15% off** flood insurance premiums!





Franklin County Emergency Management

Franklin County Flood Survey

This anonymous survey will help Franklin County Flood Mitigation Task Force identify ways to make your community safer and better prepared during and after a natural disaster.

Your input is crucial to this process. Please take a few moments to fill out this survey.

Q1 How long have you lived in Franklin County?

- ☐ Less than a year
- ☐ 1 to 5 years
- ☐ 6-9 years
- ☐ 10-19 years
- ☐ 20 years or more

Q2 What town do you live in?

- ☐ Apalachicola
- ☐ Carrabelle
- ☐ Eastpoint
- ☐ Alligator Point
- ☐ Lanark Village
- ☐ St. Teresa
- ☐ Other _____

Q3 Have you ever experienced or been impacted by flooding in Franklin County?

- ☐ Yes
- ☐ No

Q4 When was the last time you experienced flooding?

Q5 Do you think you experience more flooding from the river or the ocean/bay?

- ☐ Ocean/Bay
- ☐ River
- ☐ Both

Q6 How prepared do you feel that you and/or your household/business are for the probable impacts of natural hazards?

- ☐ Not Prepared- no need
- ☐ Not Prepared- never thought about it
- ☐ Somewhat prepared for some events
- ☐ Prepared for most events

Q7 Looking back over the past 5 years, which statement about Franklin County weather do you believe to be true?

- ☐ The weather is much worse.
- ☐ The weather is somewhat worse.
- ☐ I haven't noticed a difference. The weather is somewhat better than usual (fewer storms)
- ☐ The weather is much better than usual.
- ☐ I don't know / haven't paid attention.

Q8 Does your street flood when it rains?

- ☐ Always
- ☐ Sometimes
- ☐ No

Q9 If yes, please provide the street name and nearest cross street. Or tell us of a place you know of that floods.

Q10 How many times has that street flooded in the last 12 months?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5+
- ☐ I don't know

Q11 Is your home/business located in a floodplain?

- ☐ Yes
- ☐ No
- ☐ I don't know

Q12 Do you currently have flood insurance on your house?

- ☐ Yes
- ☐ No
- ☐ I don't know.

Q13 If you don't have flood insurance, please indicate why.

- ☐ Never really considered it.
- ☐ It never floods
- ☐ Not located in a floodplain
- ☐ Too expensive
- ☐ My house is elevated or otherwise protected
- ☐ I'm not required to do so (I don't have a federally backed mortgage)
- ☐ Other _____

Q14 Have you taken any actions to make your home, business or neighborhood more resistant to flooding?

- ☐ Yes
- ☐ No

Q15 If yes, please explain

Q16 Are you interested in ways to make your home, business or neighborhood safer when it floods?

☐ Yes

☐ No

Q16 Are you in favor of spending tax dollars on mitigation projects for the benefit of the entire community?

☐ Yes

☐ Maybe

☐ No

Q17 How do you prefer to receive information about how to better protect your home, business, or neighborhood?

Check all that apply. (Don't worry, we aren't adding you to a list)

☐ Local newspaper

☐ Television (news stories, Public Service Announcements)

☐ Local Town Cable Channel

☐ Radio

☐ Town/County website

☐ Public workshops/meetings

☐ School meetings and messages

☐ Information at the public library

☐ Information on utility bills

☐ Direct mailings

☐ Email

☐ Roadside message boards or billboards

☐ Social Media posts (Facebook, Twitter, etc.)

Q18 How do you currently receive weather alerts?

Check all that apply.

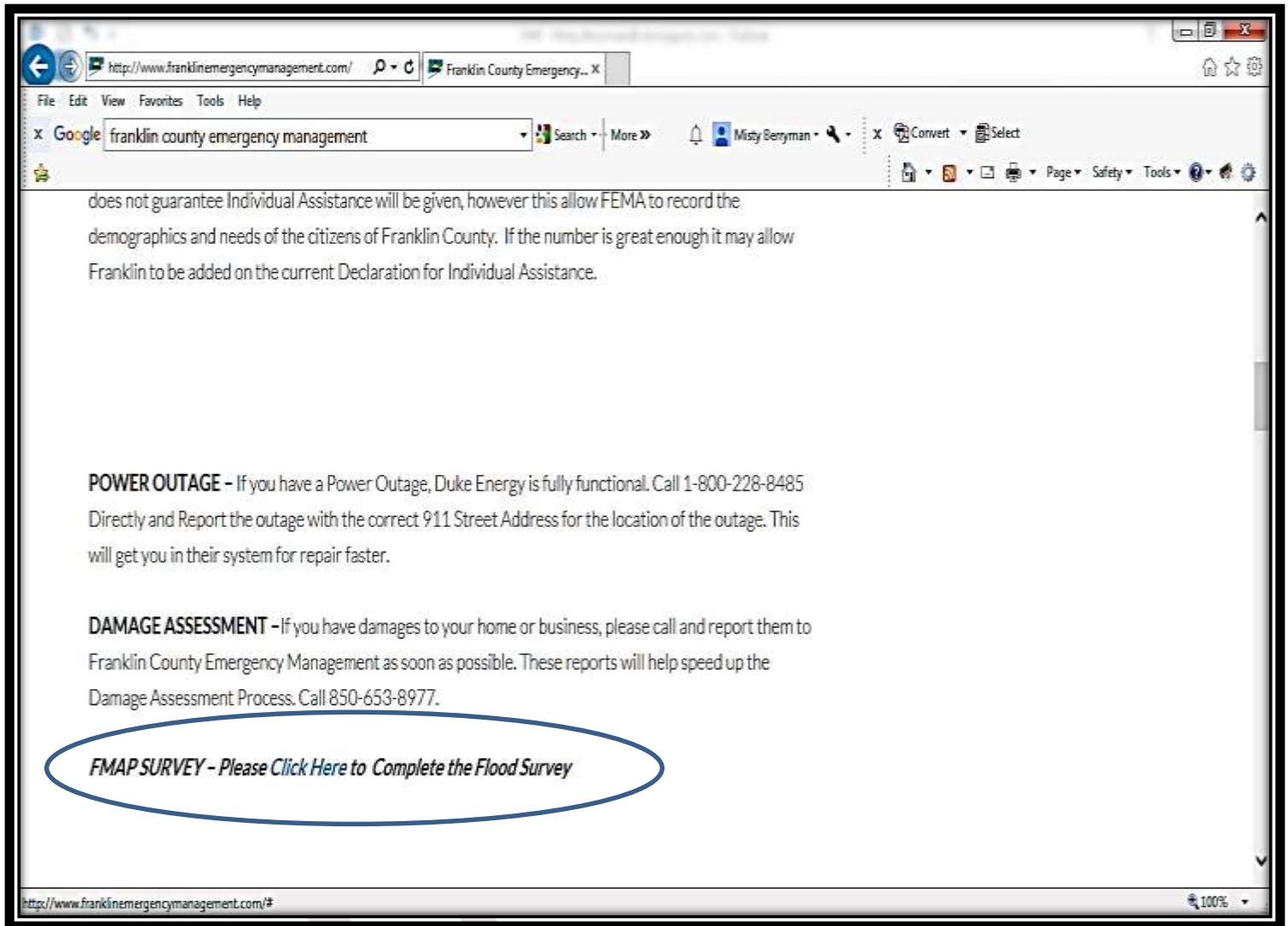
- ☐ Television
- ☐ Radio
- ☐ Nixle (public emergency notification system)
- ☐ NOAA Weather Radio
- ☐ Cell Phone
- ☐ Email
- ☐ Social Media (Facebook, Twitter, etc.)
- ☐ Other _____

Q21 There are many ways Franklin County can reduce the risk from flooding. Overall, these actions fall into one of the five categories. Please indicate how important each one is for your neighborhood.

	Very Important	Somewhat Important	Not Important
PREVENTION: Policies to reduce the impact of hazards such as zoning, planning, and building codes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PROPERTY PROTECTION: Modifications of existing homes and buildings to protect them from hazards, such as elevation of electrical equipment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COASTAL/NATURAL RESOURCE PROTECTION: Actions that not only reduce the impact of hazards but also preserve and restore natural habitats. Examples include open space preservation and wetland restoration.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EMERGENCY RESPONSE & SERVICES: Actions that protect people and property during or immediately after a disaster or hazardous event. Examples include Code Red emergency warning systems, and emergency response training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
INFRASTRUCTURE PROJECTS: Engineering of structures to reduce the impacts of hazards. Examples include seawalls and levees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q22 Additional thoughts on how Franklin County can better prepare for the next flood?

Advertisement of Flood Survey through County EM Website



Flood Survey Results

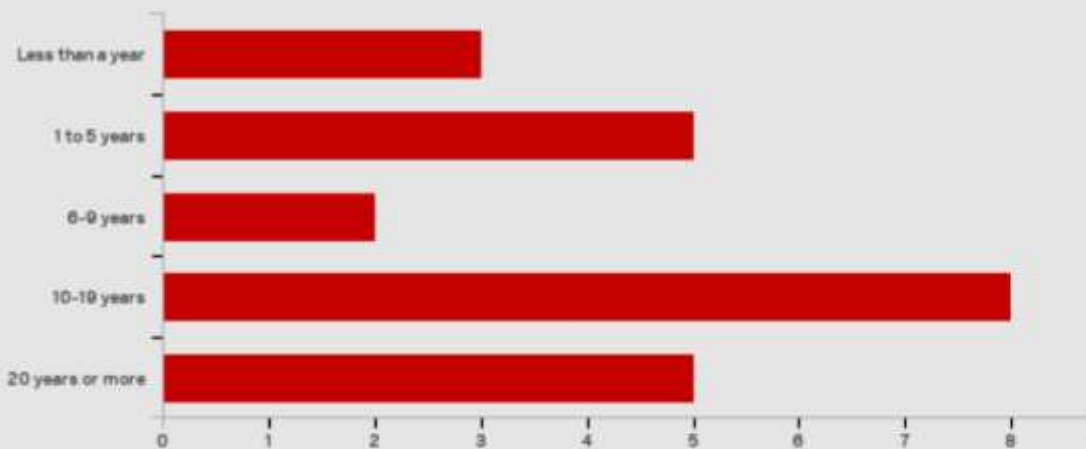
Initial Report

Franklin County Flood Survey

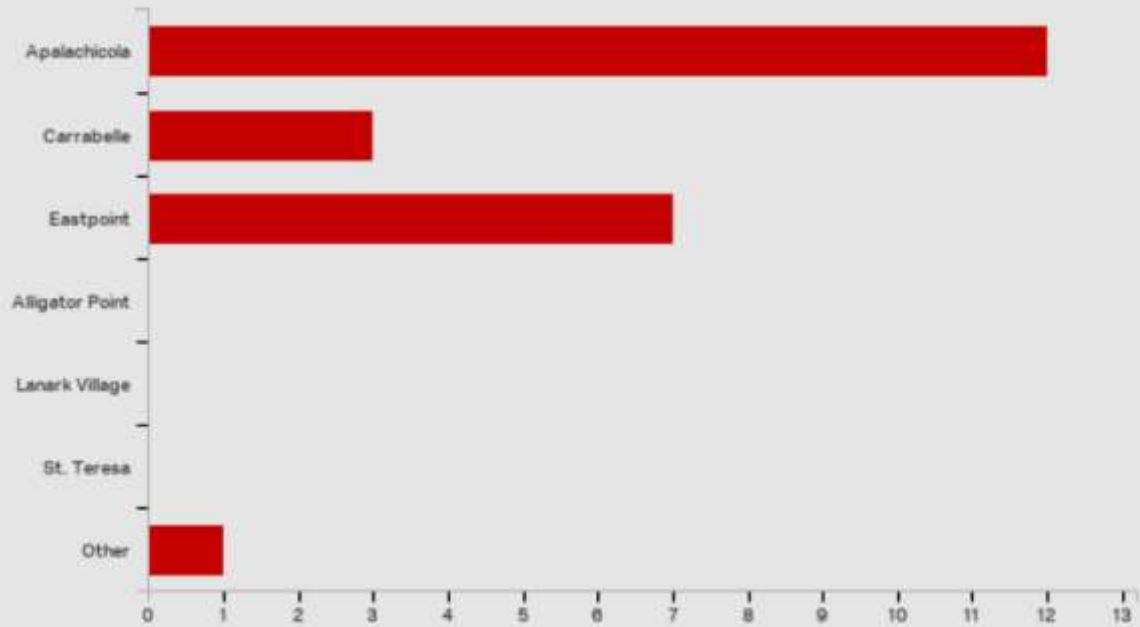
August 9th 2016, 12:31 pm EDT

Q1 - How long have you lived in Franklin County?

Answer	%	Count
Less than a year	13.04%	3
1 to 5 years	21.74%	5
6-9 years	8.70%	2
10-19 years	34.78%	8
20 years or more	21.74%	5
Total	100%	23



Q2 - What town do you live in?



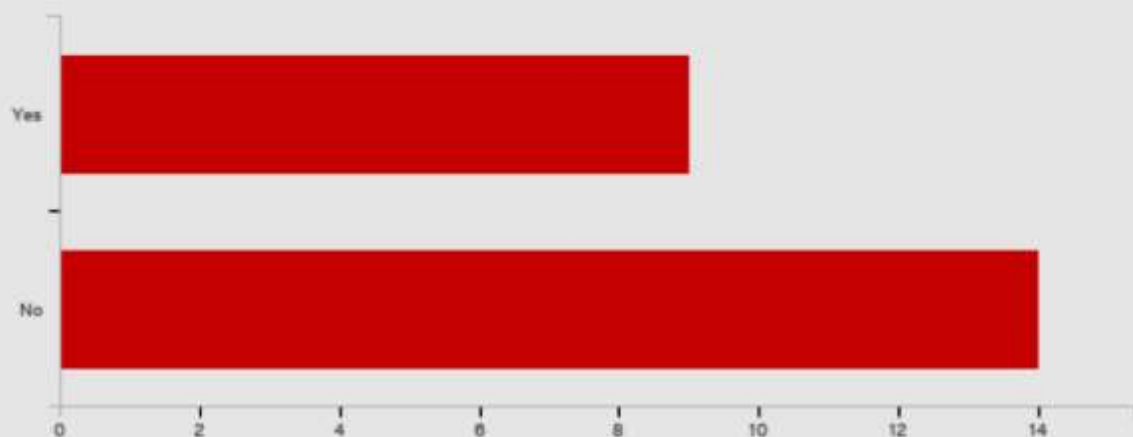
Other

Other

St George Island

Q3 - Have you ever experienced or been impacted by flooding in Franklin County?

Answer	%	Count
Yes	39.13%	9
No	60.87%	14
Total	100%	23



Q4 - When was the last time you experienced flooding?

When was the last time you experienced flooding?

NEVER

N/A

2005

2010

N/A

2012-Debby

2005

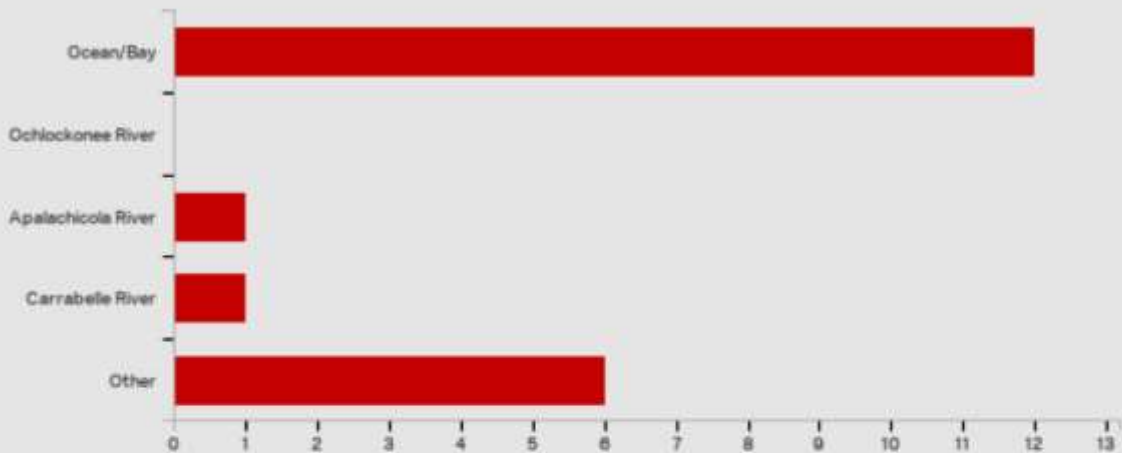
Hurricane Dennis (2005)

2005-Dennis

1995

1 year ago

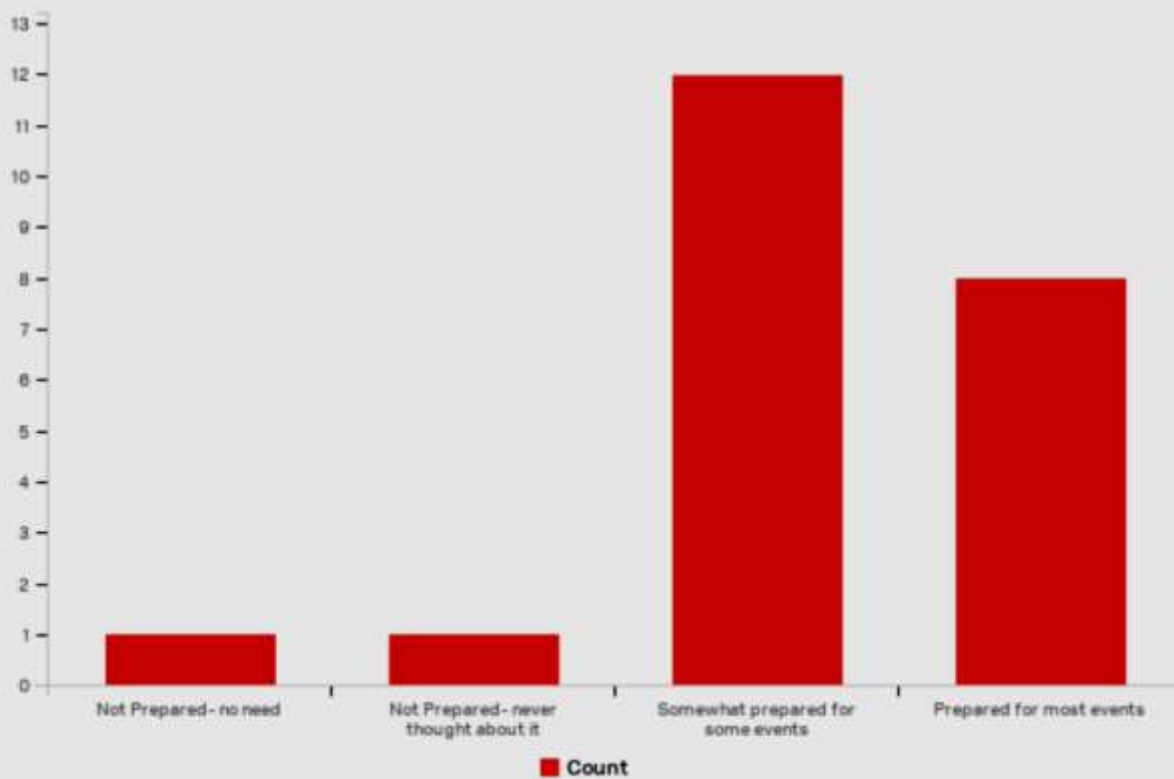
Q5 - Where do you think most of your flooding comes from?



Answer	%	Count
Ocean/Bay	60.00%	12
Ochlockonee River	0.00%	0
Apalachicola River	5.00%	1
Carrabelle River	5.00%	1
Other	30.00%	6
Total	100%	20

Q6 - How prepared are you and household/business for the probable impacts of flooding?

Answer	%	Count
Not Prepared- no need	4.55%	1
Not Prepared- never thought about it	4.55%	1
Somewhat prepared for some events	54.55%	12
Prepared for most events	36.36%	8
Total	100%	22

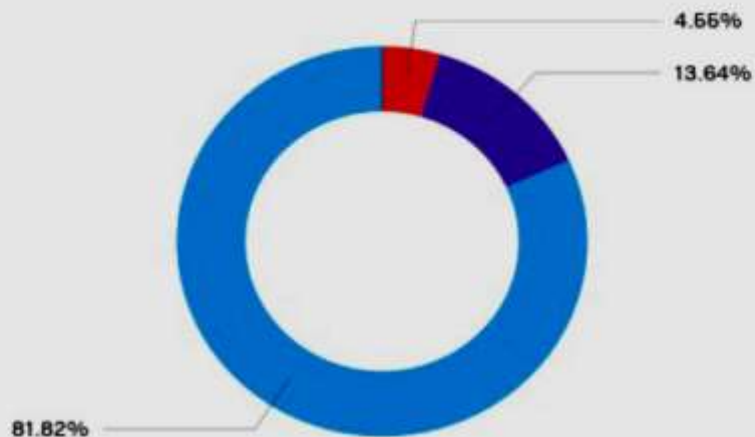


Q7 - Looking back over the past 5 years, which statement about Franklin County weather do you believe to be true?

Answer	%	Count
The weather is much worse	0.00%	0
The weather is somewhat worse	31.82%	7
I haven't noticed a difference. The weather is somewhat better than usual (fewer storms)	36.36%	8
The weather is much better than usual	22.73%	5
I don't know/haven't paid attention	9.09%	2
Total	100%	22

Q8 - Does your street flood when it rains?

Answer	%	Count
Always	4.55%	1
Sometimes	13.64%	3
No	81.82%	18
Total	100%	22



Q9 - If yes, please provide the street name and nearest cross street. Or, tell us of a place you know that floods.

If yes, please provide the street name and nearest cross street. Or, tell...

SHOREWOOD PLACE

Forsythia Court,Plantation

10th and MLK AVE

Magnolia Bay Drive and Grand Bay Drive

Hathcock Rdad

Hwy 98

7th St. between Ave E&D

Q10 - How many times has the street flooded in the last 12 months?

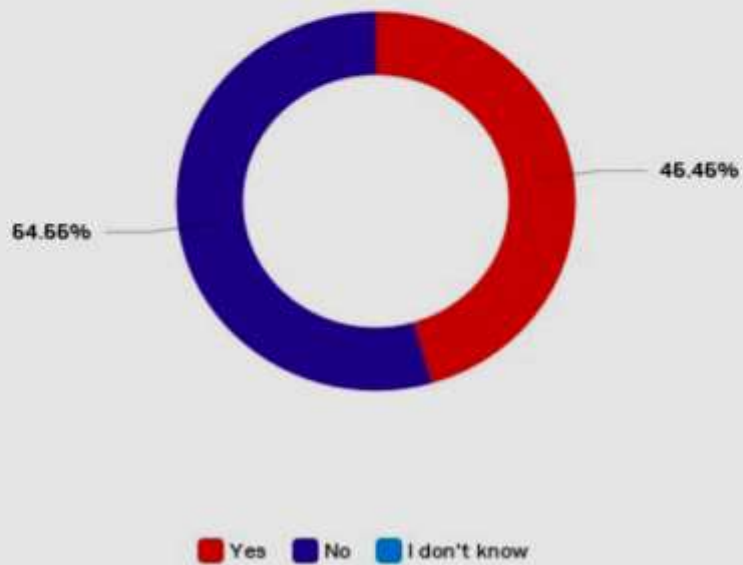
Answer	%	Count
1	5.26%	1
2	5.26%	1
3	0.00%	0
4	0.00%	0
5+	10.53%	2
I don't know	78.95%	15
Total	100%	19

Q11 - Is your home/business located in a floodplain?

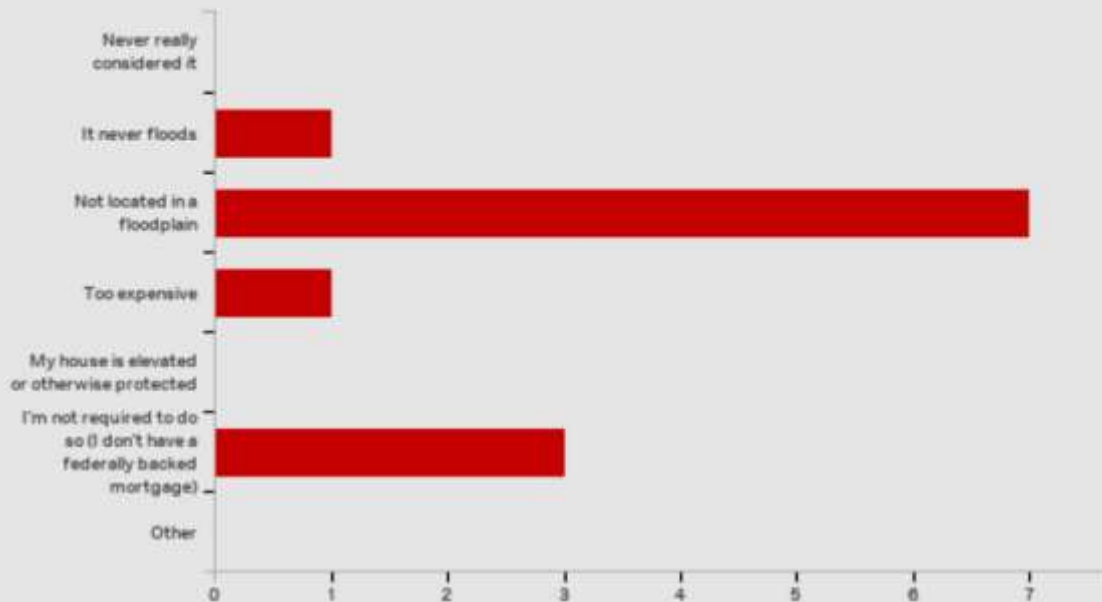
Answer	%	Count
Yes	40.91%	9
No	45.45%	10
I don't know	13.64%	3
Total	100%	22

Q12 - Do you currently have flood insurance on your house?

Answer	%	Count
Yes	45.45%	10
No	54.55%	12
I don't know	0.00%	0
Total	100%	22



Q13 - If you don't have flood insurance, please indicate why



Answer	%	Count
Never really considered it	0.00%	0
It never floods	8.33%	1
Not located in a floodplain	58.33%	7
Too expensive	8.33%	1
My house is elevated or otherwise protected	0.00%	0
I'm not required to do so (I don't have a federally backed mortgage)	25.00%	3
Other	0.00%	0
Total	100%	12

Q14 - Have you taken any actions to make your home, business or neighborhood more resistant to flooding?

Answer	%	Count
Yes	33.33%	7
No	66.67%	14
Total	100%	21

Q15 - If yes, please explain.

If yes, please explain.

HOUSE IN ABOVE EL 14' ON 12 ' PIPES

Moved possessions to 2nd floor

wind mitigation for roof flood insurance

elevation of structure

ROW rocks added by highway dept.

Planting more bushes & trees

Q16 - Are you interested in ways to make your home, business, or neighborhood safer when it floods?

Answer	%	Count
Yes	95.65%	22
No	4.35%	1
Total	100%	23

DRAFT

Q17 - Are you in favor of spending tax dollars on mitigation projects for the benefit of the entire community?

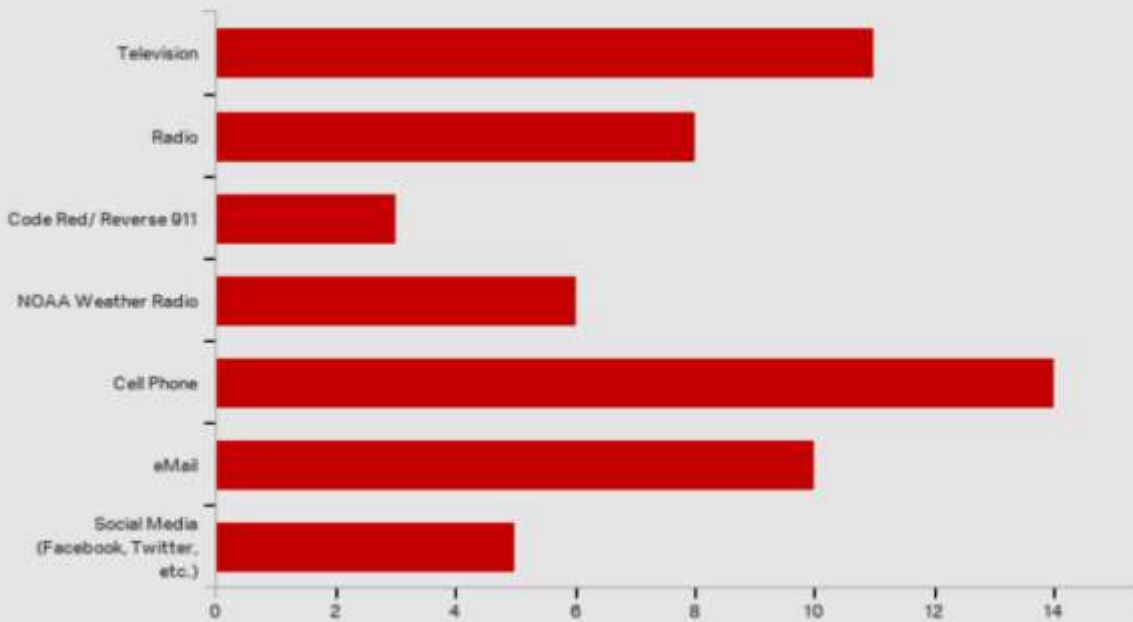
Answer	%	Count
Yes	69.57%	16
Maybe	30.43%	7
No	0.00%	0
Total	100%	23

Q18 - How do you prefer to receive information about how to better protect your home, business, or neighborhood? Check all that apply. (Don't worry, we aren't adding you to a list.)

Answer	%	Count
Local newspaper	47.83%	11
Television (news stories, public service announcements)	39.13%	9
Local Town Cable Channel	13.04%	3
Radio	60.87%	14
Town/County website	17.39%	4
Public workshops/meetings	21.74%	5
School meetings and messages	4.35%	1
Information at the public library	4.35%	1
Information sent with utility bills	13.04%	3
Direct mailings	17.39%	4
eMail	65.22%	15
Roadside message boards or billboards	13.04%	3
Automated call from Code Red Systems	8.70%	2
Social Media posts (Facebook, Twitter, etc.)	34.78%	8
Total	100%	23

Q19 - How do you currently receive weather alerts

Answer	%	Count
Television	52.38%	11
Radio	38.10%	8
Code Red/ Reverse 911	14.29%	3
NOAA Weather Radio	28.57%	6
Cell Phone	66.67%	14
eMail	47.62%	10
Social Media (Facebook, Twitter, etc.)	23.81%	5
Total	100%	21



Q20 - There are many ways Franklin County can reduce the risk from flooding. Overall, these actions fall into one of the five categories below. Please indicate how important each one is for your neighborhood. - PREVENTION: Policies to reduce the impact of hazards such as zoning, planning, and building codes.

Question	PREVENTION: Policies to reduce the impact of hazards such as zoning, planning...		PROPERTY PROTECTION: Modifications of existing homes and buildings to prote...		COASTAL/NATURAL RESOURCE PROTECTION: Actions that not only reduce the impac...		EMERGENCY RESPONSE & SERVICES: Actions that protect people and property dur...		INFRASTRUCTURE PROJECTS: Engineering of structures to reduce the impacts of...	
Very Important	80.95%	17	66.67%	14	66.67%	14	90.00%	18	60.00%	12
Somewhat important	19.05%	4	33.33%	7	33.33%	7	10.00%	2	30.00%	6
Not important	0.00%	0	0.00%	0	0.00%	0	0.00%	0	10.00%	2
Total	Total	21	Total	21	Total	21	Total	20	Total	20

REGULAR MEETING
CITY COMMISSION
CITY OF APALACHICOLA, FLORIDA
TUESDAY, JULY 5, 2016 - 6:00 PM
COMMUNITY CENTER
1 BAY AVENUE, APALACHICOLA, FLORIDA

AGENDA

You are welcome to speak or comment on any matter under consideration by the Apalachicola Board of City Commissioners when recognized to do so by the Mayor. Once recognized please rise to the podium, state your name for the record and adhere to the three minute time limit.

- I. Prayer and Pledge
- II. REGULAR MEETING
 1. Recognition of Visitors
 - a. J. P. Barber - Donate Shrimp Boat to City for Possible Future Museum
 - b. Misty Berryman - Franklin County Mitigation Assistance Plan
 - c. Anita Grove - Installation of "Drains to the Bay" Plaques
 2. Approval of June Minutes
 3. Approval of May Bill List
 4. Adoption Decision Resolution 2016-10 - Transient Dockage Fees
 5. Sister Cities International Membership
 6. Confirm Franklin County Dixie Youth League Baseball/Softball Donation
 7. Independent Consultant Agreement Regarding BTW Services, Inc.
 8. Repair Yard - Travel Lift Agreement - Mike Thrasher d/b/a Apalachicola Marine
 9. Planning & Zoning
 - a. Encroachment Agreement - LR DEV Apalachicola - 116 Avenue E - Carport & Parking Pad
 - b. Confirm May Minutes
 10. City Administrator
 11. Attorney Floyd
 12. Other Visitors & Comments
 13. Mayor & Commissioner's Comments

Any person who desires to appeal any decision at this meeting will need a record of the proceeding and for this purpose, may need to ensure that a verbatim record of the proceeding is made which includes testimony and evidence upon which the appeal is based. Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office 48 hours in advance of the meeting.

LIVING SHORELINES

Coastal
Friendly
Landscaping



WHAT: Living Shorelines
Workshop for
Residents

WHEN: December 9, 2015
2:00-4:30 pm

WHERE: ANERR Nature
Center
*108 Island Drive
Eastpoint, Florida
32320

**Free. Registration
suggested**

For more info Anita Grove at
(850) 670-7700
Anita.Grove@dep.state.fl.us



**Apalachicola
National Estuarine
Research Reserve**



Learn the science behind living shorelines vs. harden shorelines, plus plants suitable for coastal landscapes

Coastal erosion is a natural process—currents, wave action, wind, and storms continually alter the shore. Seawalls and riprap may seem like a permanent solution, however, they can often increase erosion, especially on neighboring properties. Living shorelines use plants, sand, and/or oyster shells to protect the shoreline and maintain valuable habitats that stabilize shorelines, filter runoff, protect the surrounding intertidal environment, increase water quality and create habitat for aquatic and terrestrial species. Knowledge of coastal friendly landscaping practices can save homeowners time, frustration and money. Learn about plants that can survive in a coastal environment and help stabilize property.

We will also take a field trip to a nearby living shoreline.

***For this class please park at the rear entrance off
Millender Park on the east side of the building.**

Blue Carbon Workshop

A Management Tool for Conservation & Restoration of Coastal Wetlands

July 28, 2015 | 8:30AM - 4:30PM

Apalachicola National Estuarine Research Reserve

108 Island Drive, Eastpoint, FL 32328

[Click here to register](#) and view the full agenda.

Workshop Goals

- Learn about blue carbon applications and its potential to increase the value of wetland conservation and restoration
- Build capacity to incorporate greenhouse gas functions into management plans
- Assess opportunities & constraints for implementing projects

Blue Carbon refers to the carbon and other greenhouse gases captured, stored, and emitted by tidal wetlands, salt marshes, sea grasses, mangroves, and other coastal ecosystems.

Participants will learn about the economics of blue carbon, the basics of coastal landscape project planning, models, and implementation practices, and the benefits of combining blue carbon projects with traditional conservation and restoration activities.

Seating is limited so please register soon! Registration is \$20. Lunch will be provided. Questions? Contact Anita Grove at Anita.Grove@dep.state.fl.us or 850-670-7708 or Margo Posten at Margaret.Posten@dep.state.fl.us or 850-670-7718.





FEMA Flood Insurance Informational Workshop

Who Should Attend?

Real estate professionals, building trades, architects, citizen board members including planning & zoning board, CRA, local mitigation strategy members. This workshop is focused on professional, however, others may also participate.



**No Cost —
FREE!!**

**For more info
contact**

**Anita Grove
(850) 670-7708**

Anita.Grove@dep.state.fl.us



Tuesday, November 10th, 2015

2:00-4:30 p.m.

Speakers:

- Shawn Tinsley *National Corporate Training Manager Wright Flood Insurance*
- Betty Ryals, *Wright Flood Insurance, Regional Sales Manager*
- Amy Kelly, *Franklin County Zoning Floodplain Administrator*
- Representative from the *State Flood Plain Manager, Bureau of Mitigation, FL Division of Emergency Management*

Topics

- Overview of FEMA Flood Insurance Rate Maps (FIRM), Biggert Waters Act 2012 & the Homeowner Flood Insurance Affordability Act 2014
- Understanding flood maps, zone definitions, where to find help
- How changes impact construction in Franklin and Gulf counties
- Substantial Improvement/damage, 50 % rule
- What qualifies as a historic structure?
- How to improve rating and increase savings on insurance
- Upcoming changes at the state level

Location

**Apalachicola National Estuarine Research Reserve
108 Island Drive, Eastpoint, Florida**



Florida's Forest Stewardship Program and Apalachicola Regional Stewardship Alliance Cisma

Present an

Invasive Exotic Species and Control Workshop

September 15, 2016; 9:00 am – 3:00 pm ET
Apalachicola National Estuarine Research Reserve
108 Island Drive, Eastpoint, FL 32328 (map on back)

Many exotic plants are invasive weeds that form expanding populations, making land management a challenge. Some exotic animals have also become a problem for land managers. The rapid and effective dispersal characteristics of these invaders make them extremely difficult to eliminate or manage. This program will describe some of the more common and troublesome invasive exotic plants and animals in this region and current strategies to control them.



Tentative Agenda:

- | | |
|----------|---|
| 9:00 am | Sign-in, meet & greet |
| 9:15 | Welcome & introduction, Anita Grove, Apalachicola National Estuarine Reserve and Chris Demers, UF/IFAS School of Forest Resources and Conservation (SFRC) |
| 9:30 | Herbicide safety and application techniques, Pat Minogue, UF/IFAS SFRC |
| 10:30 | Break |
| 10:45 | Invasive exotic plant species ID and control techniques, Brian Pelc, The Nature Conservancy and Greg Jubinski, Florida Natural Areas Inventory |
| 12:00 pm | Lunch |
| 1:00 | Invasive exotic animals, Shelby Williams, Florida Fish and Wildlife Conservation Commission |
| 1:30 | Partnerships and available assistance, Rose Godfrey, UF/IFAS SFRC |
| 2:00 | Break |
| 2:10 | Herbicide mixing demonstration, Pat Minogue |
| 3:00 | Evaluation, CEUs, CFEs, adjourn |
-

Register: A \$10 fee covers lunch and materials. Please register on-line at <http://www.gulfalliancetraining.org/detail.aspx?Id=118>. You can also reserve a space by contacting Anita Grove at the Reserve at (850) 670-7708, Anita.Grove@dep.state.fl.us. Pesticide Applicator and Forestry Continuing Education Credits are pending. Directions to the facility are on the back. Please share this announcement with others who may be interested.



Apalachicola
National Estuarine
Research Reserve



United States
Department of
Agriculture

The Nature
Conservancy
Protecting nature. Preserving life.



Apalachicola
Regional Stewardship Alliance Cisma



Funding for this workshop is provided by the USDA Forest Service through the Florida Department of Agriculture and Consumer Services
Florida Forest Service and the Florida Sustainable Forestry Initiative Implementation Committee,

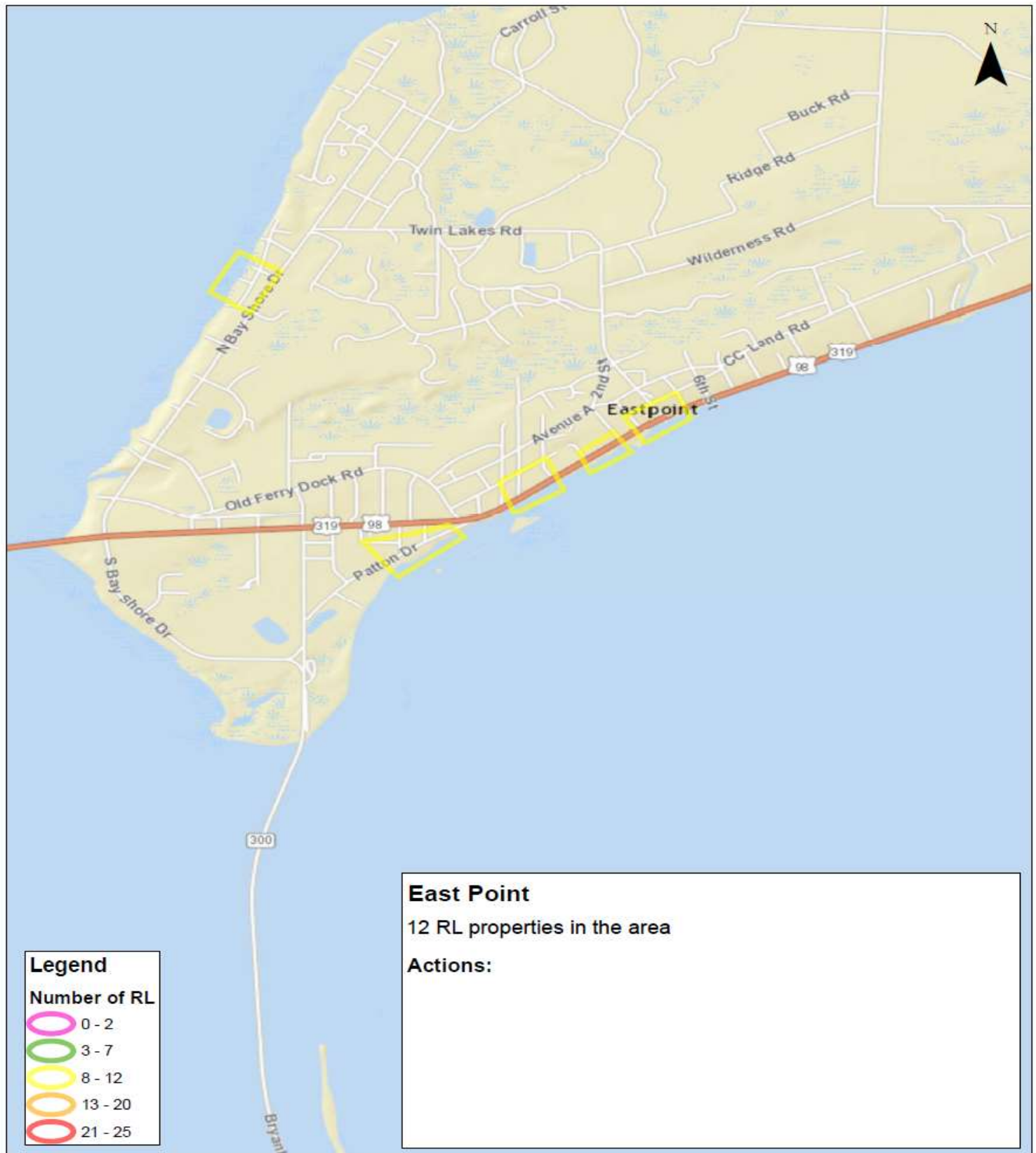
APPENDIX D

REPETITIVE LOSS AREAS

Repetitive Loss Areas



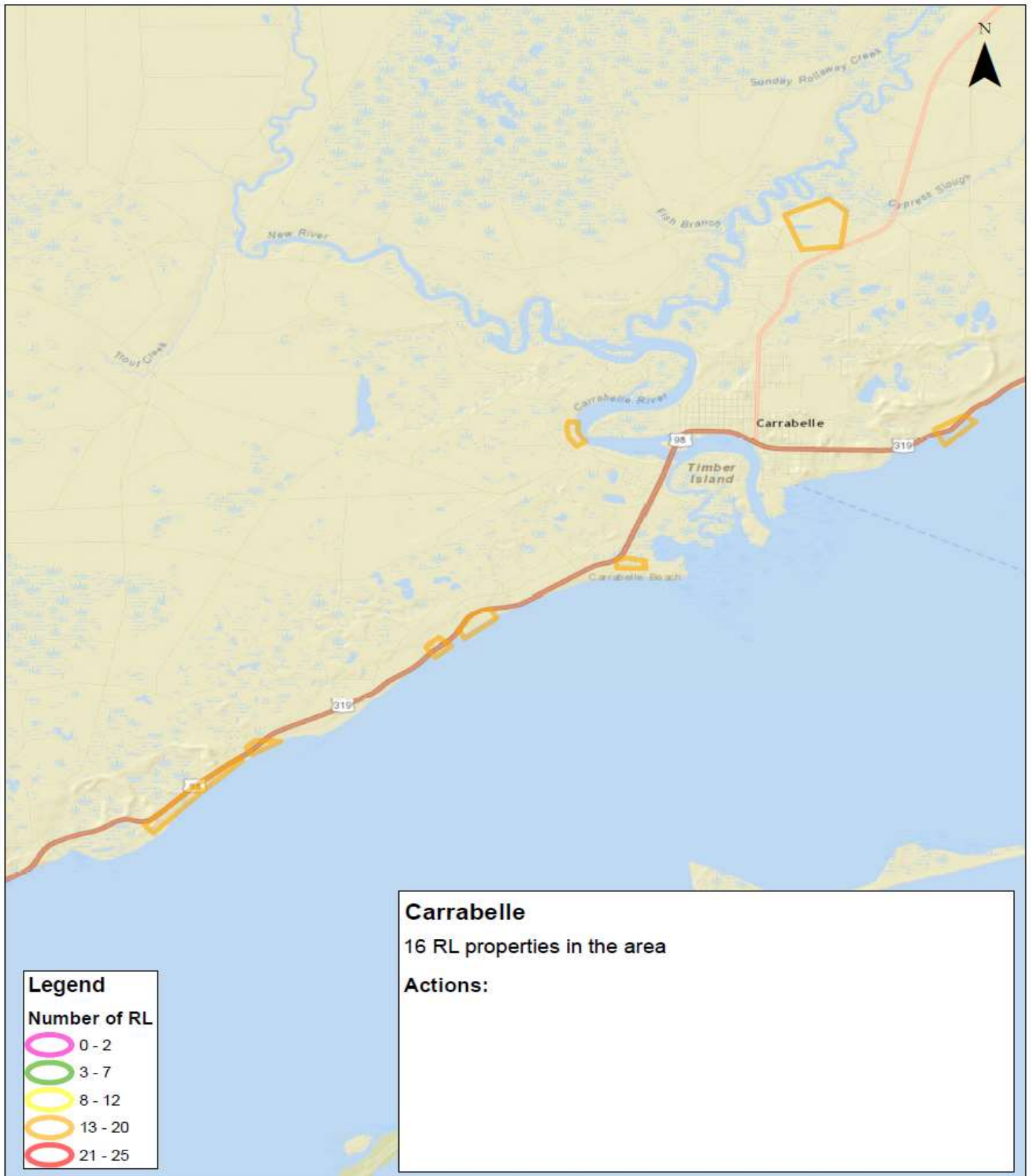
Repetitive Loss Areas



Repetitive Loss Areas



Repetitive Loss Areas



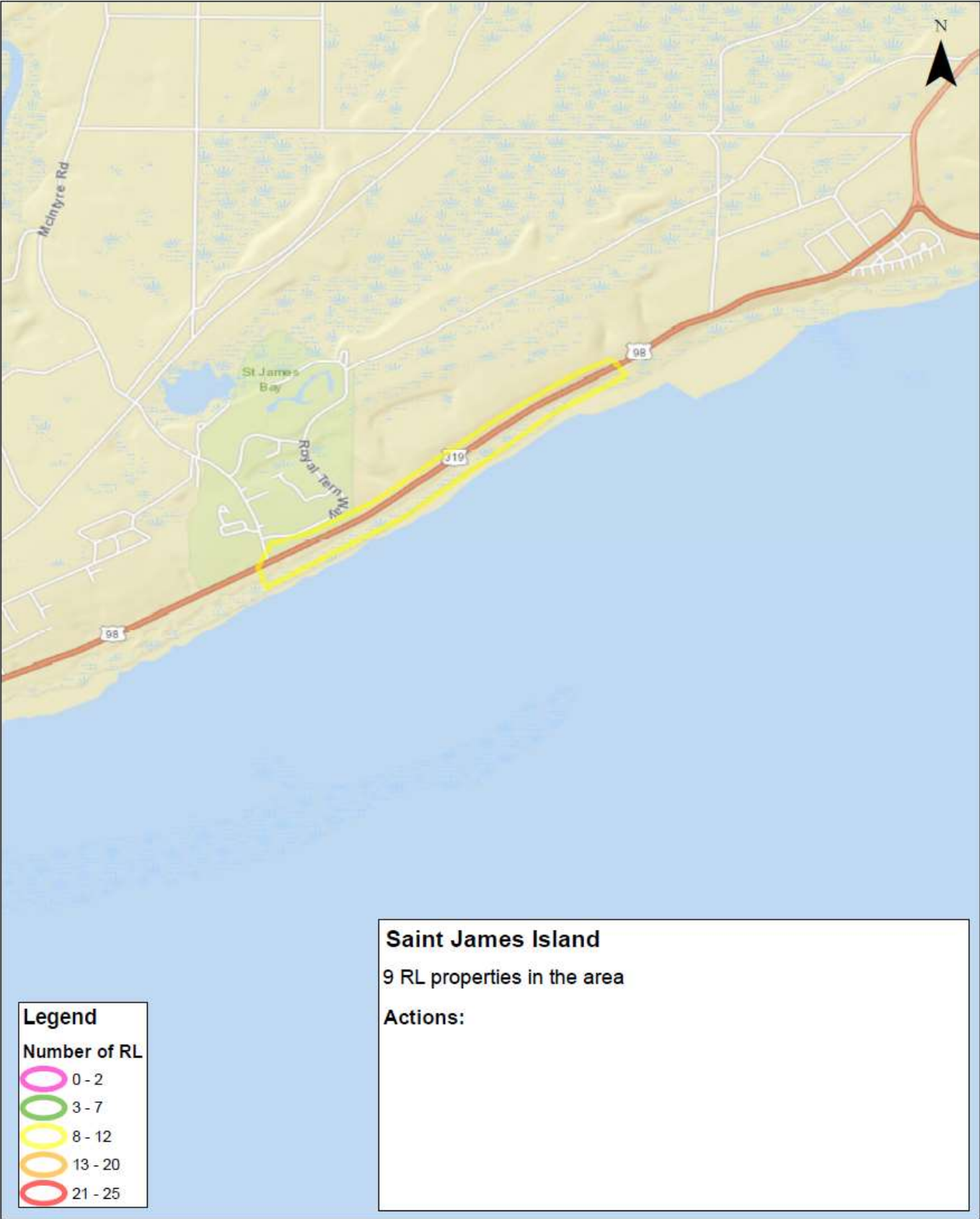
Repetitive Loss Areas



Repetitive Loss Areas



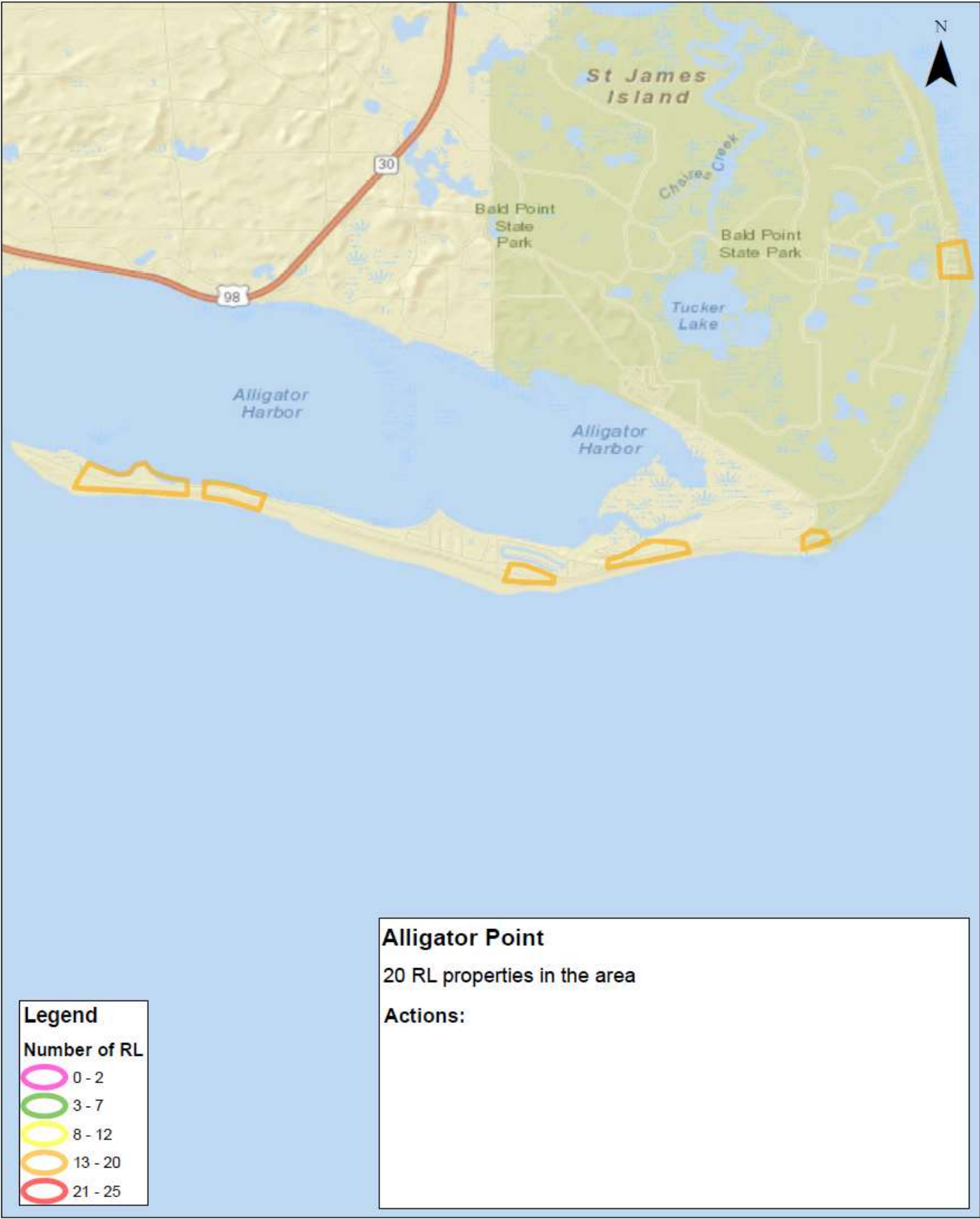
Repetitive Loss Areas



Repetitive Loss Areas



Repetitive Loss Areas



APPENDIX E

FRANKLIN COUNTY LOCAL MITIGATION STRATEGY (PLACEHOLDER)

APPENDIX F

TECHNICAL DATA

APALACHICOLA BAY WATERSHED RESTORATION PROJECT



Gulf Coast
Ecosystem
Restoration
Council

Apalachicola Bay Watershed

Tate's Hell Strategy 1
(USDA_RESTORE_002_001_Cat1)



Project Name: Tate's Hell Strategy 1 (Planning & Implementation)

Cost: Category 1: \$7,000,000

Responsible Council Member: U.S. Department of Agriculture

Partnering Council Member: State of Florida

Project Details: This project will develop a landscape-scale hydrologic assessment, a Regional Restoration Decision Support System (RRDSS) and a Comprehensive Hydrologic Assessment and Restoration Plan (CHAR Plan) for planning restoration activities in the Lower Apalachicola River basin. This project will also provide funding for planning, engineering, design, and environmental compliance for implementation of hydrologic restoration work identified as high priority in the Tate's Hell State Forest (THSF) Hydrologic Restoration Plan developed by the Northwest Florida Water Management District (NFWFMD) and the Florida Forest Service (FFS).

Activities: This project includes both planning and implementation categories. The planning activities include the development of three planning tools. The landscape-scale hydrologic assessment will be developed for watersheds adjacent to those being restored on THSF and adjacent watersheds on the Apalachicola National Forest (ANF). The Regional Restoration Decision Support System (RRDSS) will be developed from data currently under the management of separate agencies. The RRDSS will be used to build an effective framework of regional hydrologic priorities rather than focusing on specific agency needs bounded by real property lines. Once this decision tool is implemented in Florida, it can be utilized throughout the Gulf by adding in the unique data pertaining to each specific region. The landscape-scale hydrologic assessment results will be used in conjunction with the RRDSS to develop a CHAR Plan that identifies and prioritizes future restoration opportunities throughout the Lower Apalachicola River Basin and Apalachicola Regional Stewardship Alliance (ARSA) Region based on best available science.

Work identified as high priority in the THSF Hydrologic Restoration Plan, developed by NFWFMD and FFS as described in the planning component, will be implemented as a component of this project. The implementation will consist of installing low water crossings and ditch blocks, constructing bridges, installing/replacing culverts and surface stabilization of 65 miles of roads.

Environmental Benefits: The activities outlined would directly impact, and support restoration of 202,436 acres of forest restoration on Tate's Hell State Forest property, including reestablishing the native hydrology and habitat condition.

Duration: This planning and implementation project is expected to take five years to complete.

More information on these activities can be found in Appendix H. Apalachicola Bay; Unique Identifier: USDA_RESTORE_002_001_Cat1.

82



Gulf Coast Ecosystem Restoration Council

Apalachicola Bay Watershed

Tate's Hell Strategy 1

☐ **Hydrologic Restoration**
Cost: Category 1: \$7,000,000
Sponsor: US Department of Agriculture
Project Status: Implementation
Purpose: The overarching goal is to develop a landscape-scale hydrologic assessment, a Regional Restoration Decision Support System, and a Comprehensive Hydrologic Assessment and Restoration Plan (CHARP) Plan for planning restoration activities in the Lower Apalachicola River basin. This project will fund planning, engineering, design, environmental compliance, and permitting for hydrologic restoration work identified as high priority in the Tate's Hell State Forest (THSF) Hydrologic Restoration Plan developed by the NW FL Water Mgt District (NFWMD) and the FL Forest Service (FFS). In addition, the project will implement the decision tool in FL to be used throughout the Gulf by adding in the unique data that pertain to each specific region.

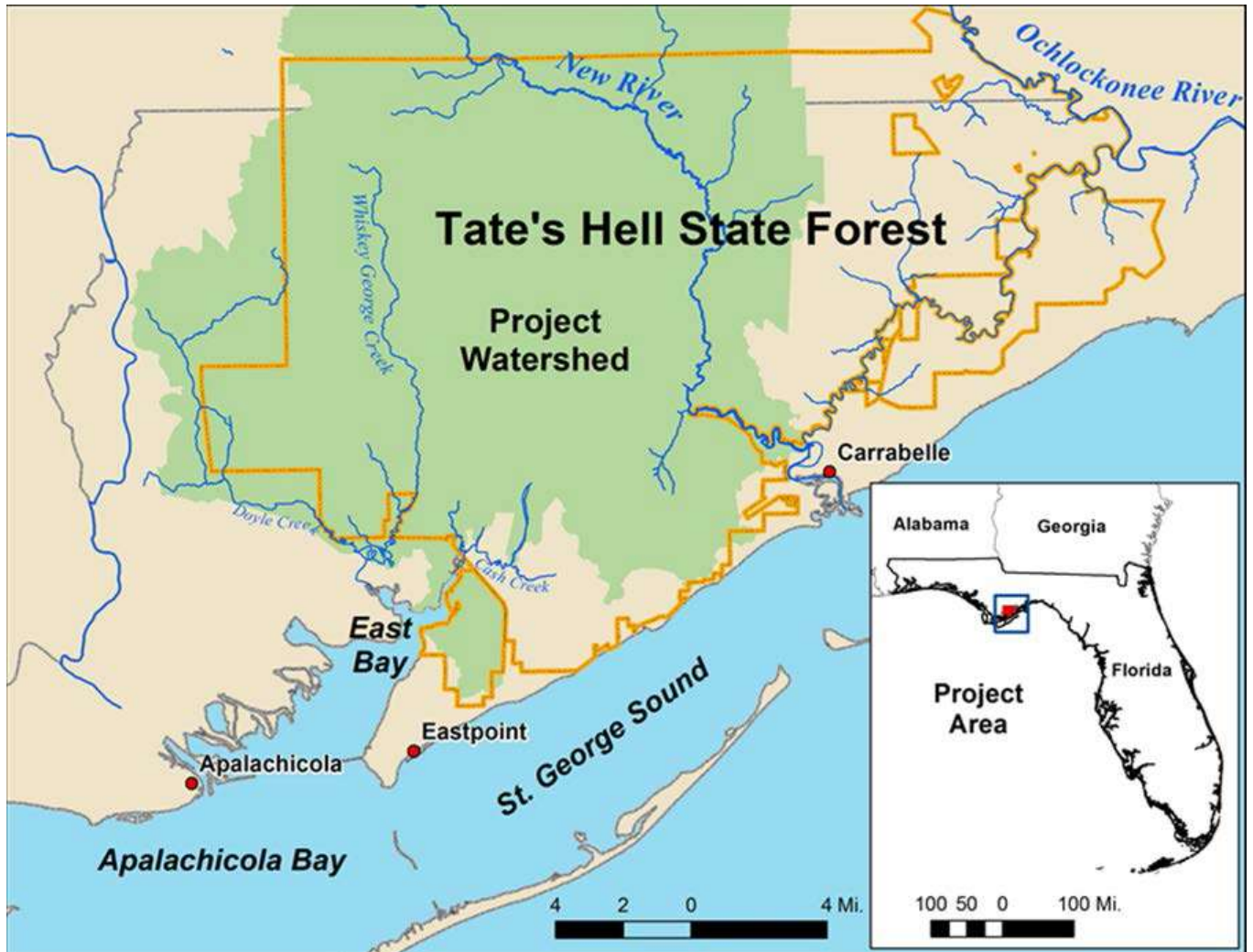


Map Date: November 30, 2015

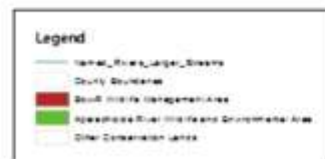
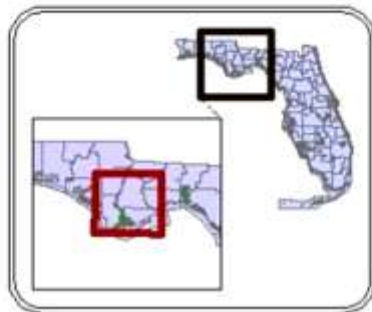
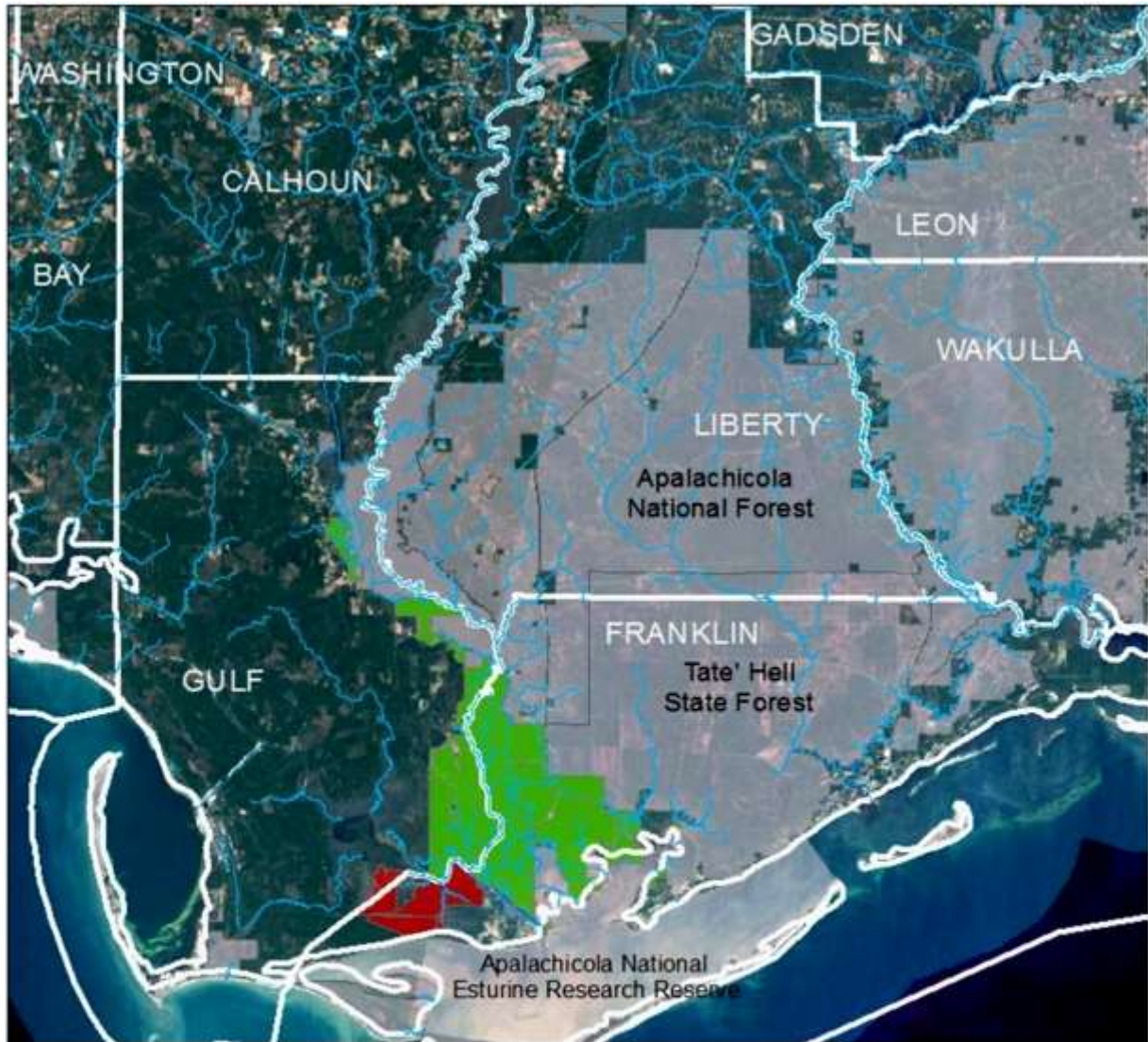
Gulf of Mexico

Apalachicola Bay

Apalachicola Bay Watershed Restoration: **Lower Apalachicola River Basin Restoration-** **Tate's Hell State Forest**



Apalachicola Bay Watershed Restoration: **Hydrological Restoration of Apalachicola River and** **Box-R Wildlife Management Areas**



Legend

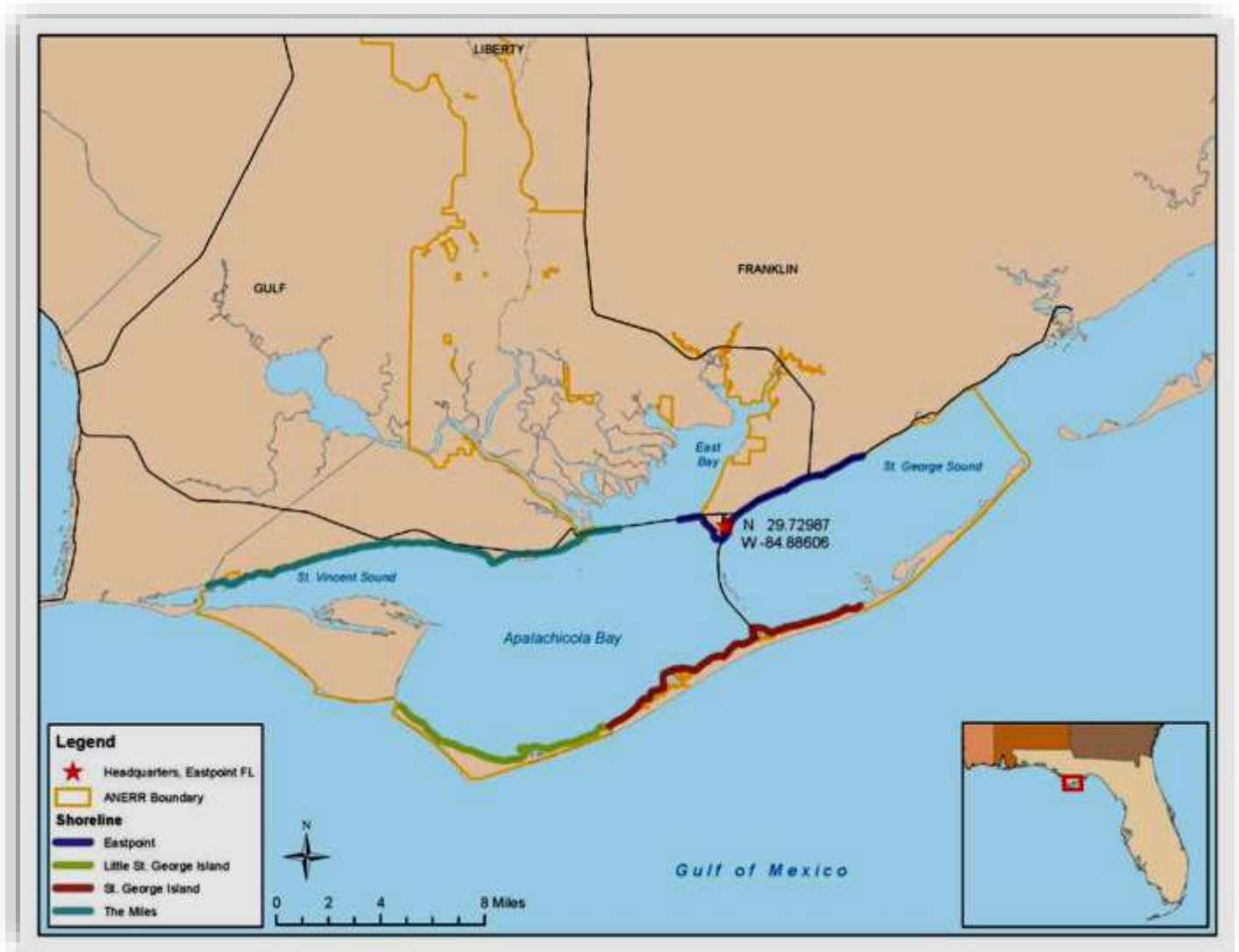
- ★ St. Joseph Bay State Buffer Preserve Office
- Preserve Boundary
- Restoration Area

N 29.71792
W -85.30397

0 0.5 1 2 Miles

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

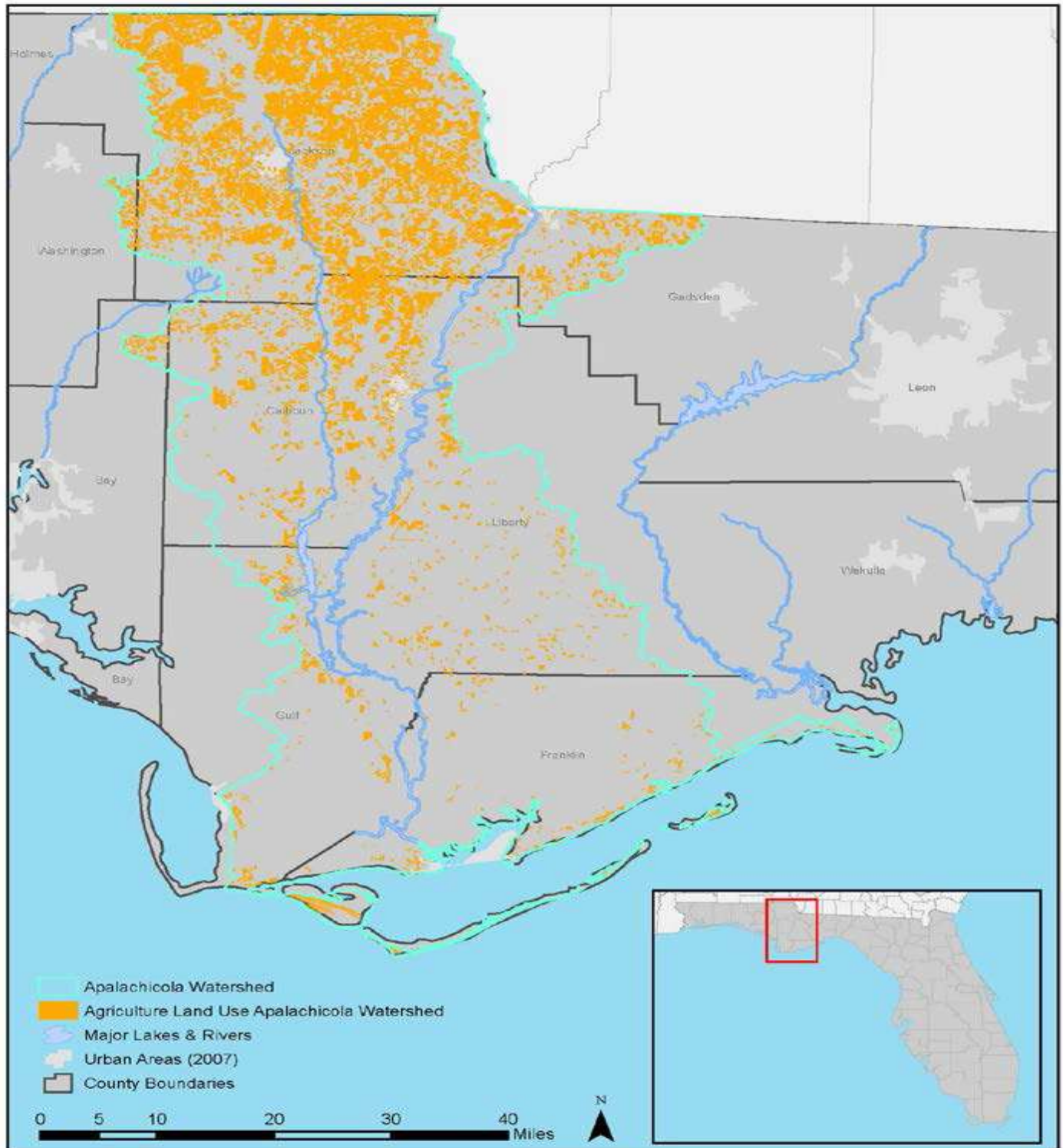
Apalachicola Bay Watershed Restoration: **Marsh and Oyster Reef Restoration at the Apalachicola** **National Estuarine Research Reserve**



Apalachicola Bay Watershed Restoration:

DRAFT

Apalachicola Watershed Agriculture Water Quality Improvement



Apalachicola Bay Watershed Restoration: **Apalachicola Bay Oyster Habitat Restoration**



Watersheds in Franklin County, FL



Surf Your Watershed

[Share](#)

[Contact Us](#)

Search: ☐ All EPA ☒ This Area

You are here: [EPA Home](#) [Water](#) [Wetlands, Oceans, & Watersheds](#) [Watersheds](#) [Adopt Your Watershed](#) [Surf Your Watershed](#) [Florida](#) Franklin County

[Surf Your Watershed Home](#)

[Adopt Your Watershed](#)

[Help](#)

Franklin County

Franklin County, FL



[Current Population](#) (2000 U.S., county) [EXIT Disclaimer](#)

This county crosses 4 [watersheds](#).

Find environmental information for each of these watersheds:

- [03120003](#) Lower Ochlockonee; state(s): FL, GA
- [03130011](#) Apalachicola; state(s): FL, GA
- [03130013](#) New; state(s): FL
- [03130014](#) Apalachicola Bay; state(s): FL

APALACHICOLA RIVERKEEPER®

SAVING AN AMERICAN TREASURE

EMBARGOED FOR 12:01 AM EASTERN TIME, APRIL 12, 2016

National Rivers Group Names Apalachicola-Chattahoochee-Flint Rivers as America's #1 "Most Endangered"

Contacts:

Dan Tonsmeire, Apalachicola Riverkeeper, 850-508-7787
Ben Emanuel, American Rivers, 404-373-3980

www.apalachicolariverkeeper.org

www.AmericanRivers.org/ACF

www.AmericanRivers.org/MostEndangeredRivers

TALLAHASSEE -- The national group American Rivers today announced its list of *America's Most Endangered Rivers®*, naming the Apalachicola-Chattahoochee-Flint River Basin in Alabama, Florida and Georgia as the Most Endangered in the country. Outdated water management decisions and spiraling demand have put the basin at a breaking point.

The *America's Most Endangered Rivers®* report is a list of rivers at a crossroads, where key decisions in the coming months will determine the rivers' fates. Rivers are chosen for the list based on the following criteria: 1) The magnitude of the threat, 2) A critical decision-point in the coming year and 3) The significance of the river to people and nature.

The water conflict that has gripped the region for almost three decades has come to a head with Florida's U.S. Supreme Court suit against Georgia and the latest attempt by the U.S. Army Corps of Engineers to update its protocols for managing the basin. Apalachicola Bay, which once produced 90 percent of Florida's oysters, collapsed in 2012 due to inadequate fresh water flows. Some Florida fishing families have had to move away to find work. The Corps manages the rivers to allow extensive upstream withdrawals for drinking water, hydropower, flood control and fish and wildlife conservation. Other uses include industrial development and agriculture primarily regulated by the states of Alabama, Florida and Georgia.

"The Apalachicola River may be the most important river in the United States that most Americans are not familiar with," said Senator Bob Graham. "The Apalachicola played a significant role in the history of the south and nourishes the Apalachicola Bay, one of the world's most productive estuaries. This estuary, and the special economy and way of life that it supports, is dependent upon a sustained flow of fresh water from the River mixing with the salt waters of the Gulf of Mexico. Tragically, in recent years, the mismanagement of the Apalachicola-Flint-Chattahoochee Basin has led to the collapse of this vital environmental and economic resource.

American Rivers is an important advocate for the role that rivers play in the ecological diversity of America. The Apalachicola River could not be a more appropriate choice on which to focus the nation's attention on the need to protect America's rivers."

"We hope this designation serves as a wake-up call and will bring the actions and change in direction needed to recover the Apalachicola River and Bay System before it goes beyond the tipping point of irreversible loss," said Apalachicola Riverkeeper Dan Tonsmeire. "We have a chance to turn this around. If we act together, we can recover the ecological functions of the Apalachicola without compromising Georgia's water supply."

"The first key to all this is that the Corps of Engineers needs new marching orders," said Shannon Hartsfield, a fourth generation fisherman and president of the Franklin County Seafood Workers Association. "The ecological needs of Apalachicola Bay should be on an equal footing with the other competing water users further north. We are hopeful that the State of Georgia will do their part to help us too. If we don't redirect the Corps of Engineers on this, we're done for. Our next drought will be the end of this bay."

A NON-PROFIT ORGANIZATION DEDICATED TO THE PROTECTION AND STEWARDSHIP OF THE APALACHICOLA RIVER & BAY
PO Box 8 (232-B Water Street) Apalachicola FL 32329 (850) 653-8936 Riverkeeper@ApalachicolaRiverkeeper.org



The rivers in the basin are so heavily exploited that some run at drought flows even in normal water years. These river conditions are not historically the case; it's happening because Georgia water use has skyrocketed and the Corps is releasing less and less water downstream. In droughts, some tributary streams are completely dry, and many of the Apalachicola's bottomland side streams and sloughs run dry for months at a time.

"If sufficient freshwater flows aren't restored soon, the once-thriving Apalachicola Bay could be lost forever," said U.S. Senator Bill Nelson.

American Rivers and partner organizations are calling on the governors of Alabama, Florida and Georgia to swiftly form a transparent water-sharing agreement that protects the rivers. We are also calling on the Corps to significantly improve water management to sustain river health.

"It's time to move from water conflict to a new era of cooperation," said Ben Emanuel of American Rivers. "This basin is ground zero for water management challenges, but it is also fertile ground for new and sustainable water management solutions. This *Most Endangered River* listing is a call to action."

Jason Ulseth of Chattahoochee Riverkeeper in Georgia added: "While the metro Atlanta region has made significant strides in water conservation, we are far from reaching our true conservation potential. All river users must pursue aggressive water conservation measures to ensure that we are using these precious water resources as wisely as possible."

Gordon Rogers, of Flint Riverkeeper, warned that "litigation and political campaigning are the least effective ways to manage water so that it is sustainable for future generations."

"After experiencing the decline of so many amazing river systems like those of the Chesapeake Bay, Everglades and Colorado River," Rogers said, "we have to be smart enough not to repeat the same mistakes. The three states and the Corps must use the best available science and stakeholder involvement to resolve this issue. The citizens of the ACF basin have already provided solutions for this regional problem. The Corps, the Governors and Congress should take a signal from the citizens, and work together to solve the problem."

Mitch Reid, program director for Alabama Rivers Alliance, said the national Most Endangered Rivers designation "emphasizes the critical need for Alabama to complete the development of a sustainable Alabama Water Plan."

"Further," Reid said, "we must truly engage our neighbors to protect our shared water resources."

Collin O'Mara, President and CEO of the National Wildlife Federation, added: "The Apalachicola River is an American treasure that is slowly dying from a lack of fresh water. As a nation, we must do what is necessary to restore the system to health and we urge the Obama Administration to implement common-sense solutions that send more water downstream."

Over the years, the America's Most Endangered Rivers report has helped spur many successes, including removing outdated dams, protecting rivers with Wild and Scenic designations, and preventing harmful development and pollution.

America's Most Endangered Rivers® of 2016:

#1: Apalachicola-Chattahoochee-Flint River Basin
(Alabama, Florida, Georgia)
Threat: Outdated water management

#2: San Joaquin River
(California)
Threat: Outdated water management

--more--

A NON-PROFIT ORGANIZATION DEDICATED TO THE PROTECTION AND STEWARDSHIP OF THE APALACHICOLA RIVER & BAY
PO Box 8 (232-B Water Street) Apalachicola FL 32329 (850) 653-8936 Riverkeeper@ApalachicolaRiverkeeper.org

DRAFT